



Thames Water Draft Water Resources Management Plan 2024

Statement of Response

Appendix H:

Response to representations from
individuals

August 2023



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Section 1

Introduction

- 1.1 The following table includes all the representations received from individuals through the emails and letters.
- 1.2 The table in Section 2 sets out: response ID, stakeholder response, Thames Water's consideration of the response, changes made to the draft plan and, if no changes, the reasons why not. We have extracted the specific points from every representation and provided a response. Any introductory and overview text is not included.
- 1.3 If you have any questions on the responses, please email info@thames-wrmp.co.uk



Section 2

Table of issues raised and our consideration

Response ID	Stakeholder response	TW consideration of the stakeholder response	Changes made to the Plan in response to the representation
32	<p>Thames Water's predictions are based on excessive population growth compared to the ONS predictions (13.1M population rather than 11.8 M population by 2075). This difference alone accounts for demand in the Thames Water region that is half the predicted total yield of the proposed Oxfordshire reservoir. Water companies have a well founded reputation for using inflated future demand predictions. This is typically illustrated by the construction of the Kielder reservoir which was planned to supply Teesside but ended up pumping water to Yorkshire when the predicted Teesside demand did not materialise.</p> <p>I am not sure how the prediction of consumption per person has been obtained either if you look at the data and graph (supplied as a separate file), which is derived from data published by OFWAT. Unfortunately as OFWAT has stopped publishing these reports and as I have been unable to find the numbers of customers elsewhere the graph ends earlier than I would have liked. This graph shows that the amount of water actually used (mains input -leakage) has remained almost unchanged while the population supplied by Thames Water has increased.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available. While Kielder is indeed a salutary tale we do not consider a scheme planned circa 60 years ago is indicative of endemic use of over inflated demand predictions within the water industry.</p> <p>The methods used to predict future demands are extensively documented with our water resources management within both Section 3 and appendices E, F and G.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
32	<p>Thames Water have now been attempting to inundate my property for more than 32 years and I think that it is time that they stopped. Due to the current legislation my property is not actually blighted as Thames Water has not made a planning application, just publicised maps every few years showing water where my property is.</p> <p>When my property had mains water and a meter our average consumption for two adults and two children was 240 l/day total, i.e. 60 l/d per person. I was talking to a lady I know with a water meter who said that her water bills were around £12/quarter. As Thames Water charge £1.50 /cu.m, that size of bill is equivalent to 88 l/d.</p>	<p>Thank you for submitting a representation to the public consultation on the WRMP. In the draft WRMP we set out the need to plan ahead to ensure we can provide a secure and sustainable water supply. We have proposed measures to tackle leakage from water pipes and help customers to reduce demand for water, as well as develop new water sources including a new reservoir in Oxfordshire. We recognise that the reservoir has been talked about for several decades and will work closely with the local community if the scheme is taken forwards.</p> <p>In respect of water use, the current average water use in Thames Water's areas is around 140 litres/head/day (l/h/d). In our revised draft plan we are</p>	<p>The commitment to support customers to reduce demand has extended to work to achieve the national target of 110 litres per person per day by 2050. Please see section 8 of the revised draft WRMP.</p>



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	<p>The Thames Water WRSE document stated that typical consumption for a metered customer was 100 -110 l/d/person and that a small percentage of very high users were causing average usage to be higher.</p>	<p>now aiming for a target of 110 l/h/d by 2050, in line with the government's national target, we'll need to work closely with government, stakeholders and our customers to achieve this as it is very ambitious and not directly within our control.</p>	
32	<p>Thames Water needs to devote its resources to replacing/relining its existing rotting Victorian infrastructure and more recent ductile iron water pipes in order to reduce its obscene leakage rate, not planning a reservoir, the total output of which that won't even match half its leakage rate. I must admit that I would love to know what the leakage rate is for the pipe running from Gatehampton to Farmoor Reservoir as there was a rumour that they used the cheapest grade of pipe even though the route goes through alternate areas of chalk and clay. The different types of ground would be subjected to differing amounts of shrinkage during a drought so I would expect huge leakage if the rumour was true.</p> <p>If a few customers are raising the average usage by almost 50% to around 150 l/d/person then they are using a vast amount of water and should have compulsory meters fitted and be paying a higher tariff.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	



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32	<p>Thames Water, having repeatedly failed in its attempts to obtain permission to build this reservoir since 1990 when it first raised this idea publicly, is now trying it again by including plans to sell water to other companies to solve their problems too. If they have spare water to sell they don't need the reservoir. This country needs a water grid and public ownership of utilities such as water, privatisation is clearly a failed experiment.</p> <p>The huge reservoir that Thames Water proposes to build will take several years to fill with sediment laden water and will probably have to be drained down for cleaning every 10 years or so. That means that the full yield will not be available for a reasonable percentage of the time, when drained down its yield would be zero. It would be difficult to drain down in winter as it could cause flooding in downstream towns, it could also be difficult to drain down in an emergency, which would probably also take place during a period of very heavy rainfall.</p> <p>The average rainfall in this area is 640 mm/year but the open water evaporation rate is probably at least 850 -900 mm/y now due to global warming so unless they cover the water with reflective spheres or solar panels the reservoir would be a net loser of water and cause the local area to have a higher humidity. Hot and damp is much worse than just hot and temperatures in the UK are undoubtedly rising. It could also result in dangerous local fogs affecting the A34 which is a grossly overloaded dual carriageway that is used as a short cut to Birmingham from Southampton and the M4. This road is frequently blocked by accidents in this area which result in local villages and minor roads being jammed by diverted traffic leading to massive tail backs, local, unexpected fogs would exacerbate this problem. The A34 is also on a raised embankment which is well above the level of the local towns and villages so in the event of a dam failure it would block the natural flow and channel the water through the railway tunnel, River Ock and the streams which go under it causing damage to the local villages and the towns of Abingdon and Didcot.</p> <p>Past experience with Whalley Dam and the dam at Datchett show quite clearly that there are safety risks associated with above ground water storage. They both caused massive problems locally even though they contain only a tiny</p>	<p>The SESRO scheme is a raw water storage reservoir. As may be evidenced from the operation of similar assets elsewhere in the UK and worldwide, it would not need to be drawn down for periodic cleaning.</p> <p>The reservoir would be designed to enable effective emergency drawdown in accordance with industry standards and prevailing legislation. This issue is explored further in Section 4.4.3 of our Gate 2 submission to RAPID.</p> <p>Evaporation is taken into consideration in the modelling of the reservoir and associated deployable output. Local climate effects from the reservoir, alongside all other detailed environmental issues, will be investigated in detail as part of the Environmental Impact Assessment (EIA) that would accompany any future application for development consent for SESRO. Any unacceptable impacts identified at that stage would need to be reduced to an acceptable level through appropriate mitigation or compensation measures and agreed with regulators before any consent was approved.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>fraction of the amount of water that Thames Water proposes to store above ground in their proposed Oxfordshire reservoir. It is clearly a safety risk.</p> <p>The suggestion from Thames Water that they will have leisure facilities such a sailing and fishing would increase this risk as they would allow unfettered access of the public to a clay dam which is 15m above ground level containing 100 M tonnes of water. If the water level is not maintained then sailing etc would actually be very difficult -how do you get a boat 15 m down to the water and what a wonderful view you would have if you succeeded, what would the wind eddies caused by the high walls do to sailing enjoyment? Fishermen would find it difficult to position their seats on a rip rap covered slope too. Clay shrinks when dry, if the reservoir remains low there is a shrinkage and cracking risk, trees on the embankments, as per the simulations, would increase that risk. Water leaks have habit of increasing rapidly, as was found at Whalley Dam and this increases the danger to the local towns and villages.</p> <p>Although a car bomb would be unlikely to burst the retaining wall a series of small under water explosions could cause vibrations that liquefy the clay in the walls in a similar manner to the earth quake in San Francisco about a hundred years ago, which caused massive damage to areas that were built on clay. Similarly the earthquake in New Zealand in 2011 caused more damage than expected due to liquefaction of clay (copy of article in separate document).</p> <p>If Thames Water now consider the cost of the reservoir to be £2 B then by the time it is completed when they find out how nonuniform the ground is in this area I predict that the actual cost will be much higher than that.</p> <p>A I understand that they have been working on this reservoir plan for at least 40 years I am of the opinion that they should have been able to predict the environmental effect, the emissions of construction and the social effect of their preferred plan and all the alternatives by now. The fact that this information is not available raises the suspicion that there is a reason why they have not done so and that the reason is that all of these adverse effects are excessive.</p>		



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35	<p>1. The main feature of the draft plan is the Abingdon Reservoir proposal which is a rehash of the plan to supply water to London which was rejected by the Planning Inspector in 2010 following a long and very detailed Public Inquiry. The key finding was that the reservoir was needed and justification for not bringing this proposal back appears to be that Thames Water now wish it to supply Affinity and Southern Water which are both part of a consortium of Water Resources South East (WRSE) Companies. Affinity has suitable alternative options for supply. Southern rejected a desalination plant which could have met their needs.</p> <p>2. The Abingdon Reservoir costing £1.8 Bn would result in a huge long term (200 years) cost to customers and its size at 100Mm³ is simply not justified by details in the draft plan. This is evidenced by the flexible range of options given for the capacity of the structure in the various computer runs made by the company.</p> <p>3. The reservoir proposal is mainly driven by the prospect of long term commercial increase in income compared with the Severn to Thames Transfer plan which is well established technology, less risky, cheaper and quicker to build and above all provides a new supply of water.</p> <p>4. The proposal for reservoir at Abingdon, a starting construction in 2025, is designed to ensure that a project that is not yet proven either in need or capacity is started and then becomes unstoppable! Its suggested completion in 2040 is designed to coincide with the Severn to Thames Transfer (STT) plan. But instead, by bringing the STT forward to start in 2025 and be operating by 2033 there would be earlier water security. It would then be possible to determine the actual need (if any) for a reservoir.</p> <p>6. The carbon footprint of the reservoir if started in 2025 would be huge with all construction plant at that stage being diesel powered. It would therefore be</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm³ in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>sensible to delay it, if it is in fact needed, by which time required capacity (if any) will be more clearly identified and plant used will be greener.</p> <p>7. The damage to the present reservoir site environment would be enormous and permanent, whereas the effect of an STT pipeline would be temporary as it will be buried so that evidence very would soon disappear. Its route is flexible and its capacity is adjustable.</p> <p>8. The much exaggerated possibilities for recreation on a reservoir perched 25 m above the surrounding countryside are highly unlikely to be realised. Far too much weight has been given to this aspect compared with the massive disbenefits such as flood risk, leakage and seepage, risk of bund failure and ecological damage. The riprap top inner surface and variable levels will make access difficult and nesting unviable. The safety aspects are ignored.</p> <p>9. Detail of the design of the proposed reservoir should be made available. At present even the geological surveys have been scant and no account has been taken of the subterranean gravel lenses which are evident after heavy rain. The practicality of delivery on time and budget are highly questionable and the implications of this need to be considered.</p> <p>In summary the STT should be started in 2025 and completed by 2033 giving earlier water security, at far less cost than a reservoir. Only when STT is operating fully will it be possible to judge the capacity, if any, required for a reservoir.</p>		
35	<p>The estimates of demand in the proposals are grossly exaggerated, partly by the requirement to use housing forecasts of 4M (which reached) as are never opposed to the Office of National Statistics figure of 1,2M increase in the South East.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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35	The estimates of demand in the proposals are grossly exaggerated, partly by the requirements to use housing forecasts of 4m (which are never reached) as opposed to the Office of National Statistics figure of 1,2m increase in the South East. Leakage reduction and “per person per day use” reduction targets are unambitious being about 10 litres a head a day lighter than other companies.	All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available. Reduction	We have provided information in response to your comments, there are no changes as a result of your representation.
35	The carbon footprint of the reservoir if started in 2025 would be huge with all construction plant at that stage being diesel powered. It would therefore be sensible to delay it, if it is in fact needed, by which time required capacity (if any) will be more clearly identified and plant used will be greener.	While it is true that low carbon construction techniques may be developed in the future, meaning that delayed construction projects may perhaps result in fewer carbon emissions, our planning has identified that there is a need to invest in new sources of water now in order to ensure a reliable supply of water in the future.	We have not made changes following this response, as our consideration is that new supplies are needed now
35	Thames Water has overpaid its share holders over many years and is now in financial trouble having at the same time failed to invest sufficiently in its infrastructure, particularly water treatment and leakage reduction. The company has changed hands twice in the past decade.	We note your comments in relation to the company's ownership and shareholder returns. Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we’re working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
35	Thames Water has overpaid its share holders over many years and is now in financial trouble having at the same time failed to invest sufficiently in its infrastructure, particularly water treatment and leakage reduction. -The Company has changed hands twice in the past decade.	We note your challenge regarding company ownership and shareholder returns. Our current shareholders are long-term investors. Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we’re working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
35	Leakage reduction and "per person per day use" reduction targets are unambitious being about 10 litres a head a day higher than other companies.	Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document. Household water use and the national target	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes</p>	



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		<p>thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
35	<p>The much exaggerated possibilities for recreation on a reservoir perched 25m above the surrounding countryside are highly unlikely to be realised. Far too much weight has been given to this aspect compared with the massive disbenefits such as flood risk, leakage and seepage, risk of bund failure and ecological damage. The riprap top inner surface and variable levels will make access difficult and nesting unviable. The safety aspects are ignored.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>South East Strategic Reservoir Option (SESRO/Abingdon Reservoir) The SESRO scheme, about which you have concerns, is one part of a wider programme of resource development and demand management options. As a water storage solution, it is an important asset in the resilience against</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>potential water shortages arising from forecast population increases and drought.</p> <p>The reservoir has the potential to offer a wide range of opportunities including creating a place that people would want to visit for their health and wellbeing, new accessible leisure and recreational facilities from walking, cycling, fishing, birdwatching and a wide range of water sports for all as well as providing opportunities to host sporting events with access to new facilities for local people. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for the local area and wider Oxfordshire.</p> <p>It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them.</p> <p>We have no reason to consider that construction of a safe reservoir with recreation opportunities would not be possible and as such do not agree that too much weight has been placed on recreation benefit compared to the consideration given to safety concerns. We will continue investigation into reservoir safety and recreation opportunities as more detailed design is carried out.</p>	
35	<p>The main feature of the draft plan is the Abingdon Reservoir proposal which is a rehash of the plan to supply water to London which was rejected by the Planning Inspector in 2010 following a long and very detailed Public Inquiry. The key finding was that the reservoir was not needed and justification for bringing this proposal back appears to be the Thames Water now wish it to supply Affinity and Southern Water which are both part of Water Resources South East (WRSE) Companies. Affinity has suitable alternative options for supply. Southern rejected a desalination plant which could have met their needs.</p> <p>The Abingdon Reservoir costing £1.8 Bn would result in a huge long term (200 years) cost to customers and its size at 100Mm3 is simply not justified by details in the draft plan. This is evidenced by the flexible range of options given for the capacity of the structure in the various computer runs made by the company.</p>	<p>The 2010 Public Inquiry was associated with Thames Water's WRMP and not a request for approval of a scheme to supply London. SESRO was included in the draft of this previous plan in order to meet the needs of future uncertainties in the available supply of water from existing sources. This need is now reinforced and increased by the Environment Agency's future abstraction licensing proposals to reduce unsustainable abstractions from the most vulnerable environments. This need is built into the demand forecast within WRMP24, but now reflect a collective regional need across the Water Companies in the WRSE region.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>The reservoir proposal is mainly driven by the prospect of longterm commercial increase in income compared with the Severn to Thames Transfer plan which is well established technology, less risky, cheaper and quicker to build and above all provides a new supply of water.</p> <p>The proposal for a reservoir at Abingdon, starting construction in 2025, is designed to ensure that a project that is not yet proven either in need or capacity is started and then becomes unstoppable! Its suggested completion in 2040 is designed to coincide with the Severn to Thames Transfer (STT) plan. But instead, by bringing the STT forward to start in 2025 and be operating by 2033 there would be earlier water security. It would then be possible to determine the actual need (if any) for a reservoir.</p> <p>The damage to the present reservoir site environment would be enormous and permanent, whereas the effect of an STT pipeline would be temporary as it will be buried so that evidence very would soon disappear. Its route is flexible and its capacity is adjustable.</p> <p>Detail of the design of the proposed reservoir should be made available. At present even the geological surveys have been scant and no account has been taken of the subterranean gravel lenses which are evident after heavy rain. The practicality of delivery on time and budget are highly questionable and the implications of this need to be considered.</p> <p>In summary the STT should be started in 2025 and completed by 2033 giving an earlier water security at far less cost than a reservoir. Only when STT is operating fully will it be possible to judge the capacity, if any, required for a reservoir.</p>	<p>lower flow periods.</p> <p>For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options (and indeed of</p>	



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		<p>all options considered by the WRMP) have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>Extensive information on the concept design of the reservoir has been made available to the public through our Gate 2 submission to RAPID. This takes account of extensive ground investigation data collected during previous studies. Further ground investigations are planned for 2023 and 2024 to help inform the development of the design as the scheme progresses into DCO consenting.</p>	
273	<p>1. Thames Water still wants to build a huge reservoir near Abingdon now known as SESRO. -Both plans suggest that this will be 100 million cubic metres in capacity although there is a 150 million cubic metres option. This was strongly opposed at the original consultation and although it is proposed as the first option it will take to 2040 to become operative even if gets immediate planning approval. -</p> <p>2. As far as the SevernThames Transfer options go, the plans suggest that the pipeline is less costly than using the canal. -They are also advocating a 500ML/d transfer rate which is more than the canal would be able to cope with. -The project is also scheduled after the proposed reservoir which makes no sense given its much shorter leadtime. -So in these terms the Cotswold Canals scheme far preferable in that it will be built now in current costs, it will avoid the need for the Deerwater Tunnel, and the extra SWT.</p> <p>3. A big omission when comparing the canal vs pipeline is the presentation of a welldeveloped analysis of the financial value of the restored canal to society and the local economy. -This seems to have been largely ignored but, on the basis of the recent IWA Waterways for Today Report, the additional financial value</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>restoring the canal could run to about £800million over the next 80 years (the basis on which the costs and best value calculations are based). -That additional benefit more than offsets the difference in cost between the pipeline and canal options. -It also justifies pressing for the full restoration of the canal rather than the minimum necessary to enable the transfer of water alone.</p> <p>4. There is no detailed information to justify the statement “The use of the Cotswold Canals as part of the Severn Thames Transfer rather than a new pipeline, has been explored but is a more costly option” (page 28 of the draft WRSE Best Value Plan). -The restoration of the Cotswolds Canals as part of the water transfer scheme would almost certainly be quicker and cheaper. -The restoration of the canal would be a large biological gain over the derelict sections and would provide more water space at the eastern end. -The Inland Waterways Association’s ‘Waterways for Today Report’ has published examples, with confirmed costings proving the benefits of developing water space and canals for residents, the environment and the local economy. -Using the figures in the report suggests the additional financial value of restoring the canal could run to about £800 million over the next 80 years.</p> <p>5. Thames Water prefer the tunnel but want it built after the Abingdon Reservoir, which, with the well supported opposition against it for the last 40 years, will still take many years before it can be started. -If it is refused nothing will have been done and London will still have a water shortage. -If the pipeline is now required to produce 500M/l why are no figures or information produced to show where that water can come from. -Even the Severn loses water in drought years and cannot replace the Thames as well</p> <p>6. It has been estimated that a transfer by using the Cotswold Canals could provide a steady flow 300ML using the presently proposed system without having to pump water to Deerwater to start the tunnel or build an additional SWT. -Additionally it could provide a transit passage for electricity to power the pumps, with car, broadband and boat takeoffs as well. -Many of the new boats will be electric and require regular charging facilities. -This would be additional to the existing local network and would be environmentally friendly and improve the</p>	<p>Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	economic value of the system as well helping the government fulfil the need for electric charging facilities.		
288	<p>I oppose the building of a large reservoir on good agricultural land near Abingdon. (I am not a local resident.)</p> <p>I support transfer of water from Severn to Thames.</p> <p>I believe strongly that public interest would be much better served by using a restored canal as the transfer route rather than a pipeline.</p> <p>I believe the use of energy intensive desalination should be regarded as a last resort solution.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
311	<p>Further to your ongoing consultation on the above I wish to repeat that I am opposed to the reservoir proposal in the Thames Water WRMP plan for the following reasons.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full</p>



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	<p>The reservoir is not needed. The reservoir is too large and intrusive. The reservoir will not supply water to the residents of Oxfordshire. The huge cost of the reservoir will be borne by the residents of Oxfordshire. Water can be transferred from the river Severn. The leaks remain unfixed. This should be Thames Water's priority. The environmental cost is too great. The loss of the flood plain. The risk of flooding. No leisure facilities. Ten years of disruption.</p> <p>As my response is unchanged since WRSE last asked in March 2022 I enclose a copy of my response then so as not to repeat myself now.</p>	<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
311	<p>Further to your ongoing consultation on the above I wish to repeat that I am opposed to the reservoir proposal in the Thames Water WRMP plan for the following reasons.</p> <p>The reservoir is not needed. The reservoir is too large and intrusive. The reservoir will not supply water to the residents of Oxfordshire. The huge cost of the reservoir will be borne by the residents of Oxfordshire. Water can be transferred from the river Severn.</p>	<p>Thank you for your responses, for detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. For the revised draft WRMP24 we have further examined the range of possible future scenarios and have considered the wide range of risks that we may encounter in the future and given the range of risks which exist, have selected SESRO 150Mm3 in 2040 to provide security for the regions supplies.</p> <p>The environmental impacts of the proposed SESRO options have been</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>The leaks remain unfixed. This should be Thames Water's priority. The environmental cost is too great. The loss of the flood plain. The risk of flooding. No leisure facilities. Ten years of disruption.</p> <p>As my response is unchanged since WRSE last asked in March 2022 I enclose a copy of my response then so as not to repeat myself now.</p>	<p>assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a</p>	



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		<p>cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	
321	<p>It would surely be best for all concerned if the planning for Water Resources was based on Best Value criteria, which takes into account the wider benefits of different schemes to the public.</p> <p>A new report (commissioned by the Charity Canal and River Trust (CRT)) (https://canalrivertrust.org.uk/media/original/47016waterwaysandwellbeingvaluimgourwaterways.pdf?v=8cbe48) was presented to Parliament in November 2022,. The combined annual economic and social value of the 2,000 miles of inland waterways in England and Wales was assessed at £6.1 billion. This included £1.5 billion annual economic value from waterbased tourism and jobs, and annual social value of £4.6 billion, which includes £1.1 billion cost saving to the NHS from active use of the waterways and the towpaths. These figures put well researched meaning (the methodology used 2022 HM Treasury Green Book valuation techniques) into the benefits that canals provide to the public, the environment and the wider economic situation. Using these figures and a Best Value approach ,the Cotswold Canals SevernThames Transfer Scheme sits head and shoulders above the schemes being considered.</p> <p>The Thames Water dWRMP promotes the early start of the construction of the SESRO option but it will take until 2040 before it comes into commission. -There is considerable opposition to this scheme and it was rejection by a public inquiry in 2010 which recommended that a SevernThames Transfer (STT) should be considered instead and the Cotswold Canals Severn – Thames Transfer (CCSTT) option was highlighted for particular attention.</p> <p>A STT can be delivered about 8 years earlier than the SESRO (about 2033) and has about a 50% higher deployable output. It can also be phased in that the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>additional resources needed to supplement flows in the River Severn can be developed and commissioned in line with the water resources needed in London and the South East. -This lowers risk of water unavailability and the delay could also cause damage to the environment through the need to resort to drought orders</p>	<p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
345	<p>The proposed augmentation of the water supply for the Thames Water Region has inter alia considers the use of the Severn/Thames Link utilising the existing geographical feature comprising the partly restored canal network between the two rivers.</p> <p>A principal and increasingly pressured feature of modern Britain is the requirement for more space to accommodate a raining population, -more space for agriculture and improved efficiencies in energy usage, energy supply and of course water consumption and waste disposal. -A consequence of these pressures is the acute need to conserve, preserve and reinstate the island's limited land area or the best possible and versatile advantage.</p> <p>The draft Plan proposals including the exploration of the creation of further large reservoir capacity flies in the face of the requirements outlined above in every respect save the provision of more water -a single item but with huge ramifications.</p> <p>In contrast the use of the existing canal route, currently under active restoration through incredibly efficient contractors and volunteer schemes provides a natural and obvious route to divert the plentiful supply of River Severn water into the natural feeder for the Thames Region, namely using -the wide conduit of the River Thames.</p> <p>The adoption of the use of the canal does however require that Thames Water as a body actively and constructively engages with its neighbouring Water Authorities in order to achieve a common purpose. -This process of collaboration does not appear to figure very highly in the discussion process and I consider this omission to be a very serious impediment to the credibility of Thames Water and its aspirations, these seemingly rather insular in approach.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Perhaps the Government -might take a wider, broader, more holistic view and actually curb the land grab option of a large reservoir in favour of a far more sympathetic, albeit possibly technically more interesting challenge of combining several aims and objectives to a common benefit.</p>		
358	<p>I would like to add several comments to the above consultation and -express my support for the Cotswold Canals SevernThames Water Transfer proposals.</p> <p>I am persuaded by the argument to use the Cotswold Canals (Stroudwater Navigation and Thames & Severn Canal) to move water from the west to the southeast.</p> <p>I understand that support for this option has been very strong in previous consultations yet doesn't seem to have much influence on the plans.</p> <p>On page 28 of the draft plan, it says “The use of the Cotswold Canals as part of the Severn Thames Transfer rather than a new pipeline, has been explored but is a more costly option” -I cannot see a detailed explanation or breakdown that leads to this conclusion.</p> <p>The westeast transfer using a restored canal route would seem to deliver a short lead time and start to get the water flowing relatively quickly. Remembering the lack of rainfall in 2022, this would seem to be an important factor.</p> <p>Other options with longer lead times could be pursued in due course.</p> <p>The pipeline option for the SevernThames Transfer cannot provide the environmental and social benefits whereas transfer via a restored canal would and truly offer 'Best Value'.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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358	<p>I understand that the WRSE plan is meant to deliver a 'Best Value' (not least cost) result and fail to see how a buried pipeline could achieve this in preference to using a restored canal.</p>	<p>We received a large number of representations supporting the use of the restored Cotswold Canals in combination with new pipeline as the conduit for the water transfer from the River Severn to the River Thames. We have undertaken an options appraisal study to assess a wide range of potential options to transfer the water from the River Severn catchment to the River Thames and engaged with the Cotswold Canals Trust and supporters as part of the appraisal. The work concluded that a new pipeline is the best value option. This is presented in our STT Strategic Resource Option Gate 2 report (www.thameswater.co.uk/SRO) and more information is included in Appendix J of this document. Before any final decisions are made and as part of any future phases of the scheme development, we will undertake a specific consultation on the pipeline and route corridor options.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
359	<p>The plan does not represent "best value" by the undertaking of laying a long pipeline through an area of outstanding natural beauty to that of restoring and using the existing line of the Cotswold Canal. With the requirement to show how natural benefit could be derived from the installation of such a pipeline compared to a restored and vibrant waterway bewilders me. I appreciate that with using the Cotswold Canal to transfer water that a pipeline and pumping station would be required, this would be significantly less intrusive and damaging to the environment than the current plan would cause.</p> <p>This option that could fundamentally achieve the delivery of much of the required supply and provide the environmental and social capital ambitions that the other (pipeline) scheme fails to offer. The fact that this option is dismissed in a few lines tends, in my view, to show that there is already an ambition within the planners and water companies minds to dismiss this aspect out of hand. This dismissal comes despite the very strong support for the Cotswold Canal transfer scheme in previous consultations.</p> <p>It is surely a further consideration that if the scheme to use the Cotswold Canal was adopted then there would be a significant improvement of the standing of water companies in the public perception than the one that exists now. That is, that they extract as much water from rivers and ground sources as they can get way with to the detriment of the local ecology and biodiversity, before using the same rivers to dump as much sewage as possible back into them.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>I fully appreciate that the water shortage situation requires urgent action. The present plan has very significant lead times, such as the building of the massive reservoir in Oxfordshire. This reservoir has been in the proposal of previous plans and has met with significant local opposition, quite understandably when the amount of excellent farming land that will be lost to this scheme is taken into account. I therefore do not understand why this long lead time plan is given priority over a far shorter lead time if the Cotswold Canal transfer scheme was adopted.</p> <p>With further reference to the building of the proposed reservoir near Abingdon, why has no account been taken regarding the gravel pits that are in use or planned for further gravel extraction in the Ashton Keynes, Cricklade and Marston Meysey areas of Gloucestershire. (I am not suggesting that the current Cotswold Water Park pits are included). I would suggest that combining these facilities would provide the water storage facility that the Abingdon reservoir would without the loss of valuable farmland and the massive environmental damage that this scheme would cause.</p>	<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
359	<p>The growing public awareness of the process and the present discussions and publicity on the amount of fines being imposed on water companies by the regulator will no doubt become a significant issue in the runup to next years general election. The Times newspaper has in the last week started a major campaign to highlight this disgraceful process. I for one will be lobbying my MP to ensure that the financial penalties levied on water companies will be more realistic than the present paltry amounts.</p>	<p>Thank you for taking the time to participate in the consultation on the draft WRMP and we note your dissatisfaction on the performance of water companies and the regulation of the sector.</p> <p>The purpose of the draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. In developing and implementing the WRMP we follow a stringent regulatory process with active involvement of government and regulators who challenge us, and will hold us to account for our performance.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
370	<p>I am writing in response to the Thames Water (TW) consultation on their draft WRMP 24 to strongly request that the option to mitigate future water shortages in the South East via Severn – Thames water transfer using the restored Cotswold Canals is prioritised ahead of other options. -There are numerous reasons for this and I believe the most significant ones fall under the headings of Timing, and Environmental and Social benefits. -I also note that some of TW's reasons seem rather contradictory.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Timing: The proposals clearly state the urgency in investing to increase water supply resilience in the south east, but miss the opportunity to have the canal based water transfer scheme up and running probably by the end of this decade, by instead, prioritising the hugely unpopular Abingdon reservoir scheme (SESRO) which will not be completed until probably 10 years later and can deliver only just over half the supply rate.</p> <p>Environmental: -Looking at the published proposals. -Water reuse and desalination -both of these options require very energy intensive processing plants which cannot be readily powered on and off with varying water demand, and will therefore require ongoing high energy consumption completely opposite to national netzero objectives. - Water transfer by pipeline – this requires considerably more energy than the canal option as it requires water to be pumped over the full height of the Cotswold escarpment, whereas the vertical lift of the canal option is considerably less because it makes use of the existing canal tunnel through the escarpment. -The pipeline also offers no benefit to the natural environment being totally buried underground, whereas the canal option will result in over 20 miles of green wildlife corridor creating new land and aquatic habitats, joining up existing ones across the Cotswold valleys.</p> <p>Social: -Again contrasting the pipeline versus the canal transfer options. -A buried pipeline offers no societal benefit whereas the canal offers many. -The restored canal path provides a quiet, safe multiuser trail which can be used for leisure or commuting on foot or by cycle. -Exercising this way is a well documented means of improving general wellbeing. -The restored canal itself will provide a waterway for leisure users in boats, canoes etc, and extensive fishing opportunities. -Finally, it is also well documented that restored</p>	<p>options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050.</p> <p>We have selected the Oxford Canal (Dukes Cut) raw water transfer scheme in 2040 for the revised draft WRMP.</p> <p>For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>We have included the Oxford Canal option in 2040 for our revised draft WRMP</p>



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	<p>canals improve the local neighbourhood, stimulating inward investment and regeneration with associated job creation. -A number of national studies compiled by the Inland Waterways Association have put a value to these societal benefits which can be calculated for the Cotswold Canals option and would be £800 million over the 80 years of the plan. -Of course it can be argued that the reservoir option offers many of these leisure opportunities, but the canal transfer could be constructed and operating with much public support, in less time than it will take to get the consents for the reservoir which is known to be largely publicly opposed.</p> <p>Best Value: -Clearly with the environmental, social and timing advantages of the canal based transfer scheme and the calculated financial benefits, this scheme offers the best value of the reservoir or pipeline based transfer schemes.</p> <p>Contradictory reasoning: -I'd also note that when I discussed the various proposals and their merits (or otherwise) at the recent TW public consultation openday in Cirencester, I was told key reasons for preferring SESRO over the canal are: a) SESRO would be entirely under TW's control and TW is familiar with operating reservoirs, b) the canal option would not be under TW's control and they have no experience of canals for water transfer. -Both of these reasons seem somewhat spurious because the detailed cost information states that TW will only have a 41% shareholding in the SESRO scheme suggesting they won't have control, and the Oxford Canal is included in one of the preferred options in the draft proposals.</p> <p>Please reconsider the priorities and reevaluate the benefits of the canal option and the social capital to be gained from its execution, and revise your draft plans accordingly.</p>		



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374	<p>The best solution to the problem of future shortage of water in the Thames area is to implement the Cotswold Canals SevernThames Transfer Scheme, for the following reasons:</p> <p>The CCSTTS will provide much better environmental and social benefits compared with the alternative fullypumped pipeline transfer scheme, which offers none. -The CCSTTS would restore the canal for leisure use, provide employment and recreation, and increase biodiversity.</p> <p>The CCSTTS is greatly preferable to the controversial Abingdon storage reservoir scheme. -The proposed Abingdon reservoir will take up valuable agricultural land, is very unpopular, will involve lengthy planning approval arguments and will be very slow to implement.</p> <p>The CCSTTS offers the possibility of creating additional water storage in old gravel workings at its eastern end.</p> <p>The CCSTTS is best value. -The monetised value of the restored canal has been grossly underestimated at £80M over 80 years, whereas experts using IWA figures value it at nearer £800M.</p> <p>I trust you will respond to these clear advantages and amend your Plan accordingly.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
388	<p>I feel compelled to write to you regarding the proposed scheme of water transfer from the River Severn to the River Thames. From what I can gather the WRSE “draft best value plan” seems to not address the following points.</p> <p>The proposed pipeline scheme would follow a much higher elevation over a greater distance than the proposal to use the existing Thames & Severn Canal, Sapperton tunnel being the highest point on the canal is at a much lower</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>elevation than the pipeline would be, this could result in lower daily running costs.</p> <p>Another point that seems to have been overlooked is the utilization of the gravel pits at Cerney Wick which are very close to the canal & could be the first of several potential reservoirs, these could result in an additional 20 to 30 million litres of water per day available to transfer to the river Thames at a much lower cost during drought conditions.</p> <p>The best draft best value plan also falls short of the canal plan by approximately 50 million litres a day and does not bring social & environmental benefits into the bigger picture. The pipeline being buried will have no extra environmental benefits whereas the canal will have considerable benefits coupled with tremendous biodiversity.</p> <p>I would also like to ask why a very controversial reservoir near Abingdon is being considered along with a scheme that has such a much longer lead time than utilizing the canal? This longer lead time could risk a period of almost 10 years in which London could potentially run out of water! Apparently, this has already nearly happened in 2012.</p> <p>It looks like the benefits of the canal have been underestimated by as much as 720 million pounds over an 80year period. This could be because the environmental value of the canal scheme along with the biodiversity aspects have not been included in the official estimate. (Please refer to the IWA waterways for today which includes about six different national studies)</p> <p>I would urge you to seriously consider utilizing the Thames & Severn Canal for water transfer to the river Thames. To use the pipeline scheme would result in a huge, missed opportunity to restore this beautiful canal thus stimulating the economies of all the towns along its route, as well as answering your water shortage crisis.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
390	<p>It seems illogical to place water transfer from the River Severn behind the much longer reservoir project added to which the former would provide at least 300Ml/d compared with only 185 Ml/d. Even adding the proposed waste water recovery scheme would not match the transfer volume. A lot can happen in the timescale for the reservoir, with no contribution till it is completed.</p> <p>With regard to the Severn transfer you have dismissed the option of using the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Cotswold Canal preferring a much longer pipeline with its higher ongoing cost of pumping and the need to run high voltage power lines to pump locations. People local to the pipeline route are likely to object to the disruption during its construction and the power lines. There will be no benefit to them when it is completed.</p> <p>The Canal transfer option is not likely to meet with significant opposition as the locals see the benefits of the section already restored. The shorter pipeline needed to take water to the summit level of the canal, after which it flows to the Thames under gravity, is less power hungry and follows an easier route. You have dismissed the canal claiming it would have higher costs than the long pipeline but have again failed to show any justification on how you arrived at this conclusion. The recently completed restoration of part of the canal and ongoing restoration of another section can provide detailed information on restoration costs. In any case if you make your choice on Best Value costing the long term benefits of a restored canal are significant. Based on a recent Inland Waterways Association study “Waterways for Today” the value of the restored canal could be £800M over the 80 year time frame used in these calculations.</p> <p>I strongly support bringing forward the transfer option using the Cotswold Canal, Despite the widespread support in the previous consultation you seem to have taken no notice in the current proposals.</p> <p>If you go ahead with the present proposal you face years of criticism every time there is a dry summer. Bristol uses water from the River Severn via the Gloucester and Sharpness Canal which is wide and deep enough to easily cope with transfer to the Thames. Transfer via the Cotswold Canals is an easy answer to getting more water to your region quickly.</p>	<p>options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
391	<p>We are writing to support the Cotswold Canal Trust water transfer scheme. There are advantages over more traditional solutions like reservoirs and pipelines. It is more environmentally friendly and might offer cost savings.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
395	<p>I'd like to comment on the Water Resources South East consultation, and suggest that you may be underestimating the advantages which can be offered by transferring water via the existing canal system: -</p> <p>A SevernThames transfer can be completed far sooner than building a large reservoir in Oxfordshire, and with far less local public opposition . . . and this earlier completion reduces the risk of running out of water in the shorter term in the (not unlikely) case of drought.</p> <p>The canal offers advantages over a pipeline, in that it offers a lower summit over which water has to be pumped.</p> <p>Especially in the light of current political developments, any expensive desalination and water reuse schemes are likely to consume high levels of</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>electrical power at a time when the supply may well be prejudiced.</p> <p>The Cotswold Canals SevernThames transfer delivers 'natural capital' including biodiversity connectivity and social benefits in addition to the water being transferred.</p> <p>Restoring the Cotswold Canals would incorporate a legacy into the programme that would be seen as inspirational and visionary by current and future generations. It would be seen as an iconic manifestation of the Government's 25 year Environment Plan.</p>	<p>ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
396	<p>It is clear that figures quoted in the draft plan grossly overestimate future population figures for the region, using national growth estimates rather than more realistic figures, including those of the ONS which do not project the levels of growth that Thameswater claim. On this basis their business case is entirely unfounded.</p> <p>The Plan should be adaptive, as this is essential for ensure that supply meets demand overtime. There is nothing adaptive about building a single large reservoir which would create devastation, harm the environment, and destroy communities, only to find that the case for demand was not correct. A reservoir of such size and scope and risk, is not be adaptive, involves major and long term investment paid for by customers, into a single aspect infrastructure project which is not needed, is not substantiated by evidential demand, and is inflexible. There needs to be another more reasoned and sustained approach based on realistic population data.</p> <p>The flawed data used by Thameswater is completely out of line with government projects, and therefore at best questionable and at worst clearly</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.</p> <p>The growth data used was the most recent data available at the time of producing the forecasts and we have updated the forecasts for our revised draft water resources management plan.</p> <p>The proposed reservoir is a common solution across multiple scenarios which encompass a wide gamut of future supply and demand scenarios. The plan is adaptive as it provides solutions based on multiple different potential futures and provides an optimal best value plan.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>discredited. There is no case for the reservoir as proposed. The data they have used makes the assessment of the issues of supply and demand complete nonsense. Better alternatives are more readily available than a grotesque banded reservoir towering above the flat agricultural landscape that this will destroy forever.</p> <p>Infact government population projections now suggest a fall in population growth and as we write today the economic climate is such that the government (stated last week by Mr Grove) is predicting lower housing growth numbers across the south east. Thus the very basis of the Thameswater case is already undermined by reality and there is no requirement or future demand sufficient to substantiate the need for the reservoir.</p> <p>The need for a reservoir can be reassessed at a future time when population figures proven. At the time of writing we are already seeing a fall in demand for housing in the south east and a reduction in national net migration numbers. The population statics are changing and reducing.</p>		
396	<p>I want to see investment in sewage works, protection of the rivers and environment, the leaks fixed, and water transfer in place. This is what should be in the plan. Thameswater need to provide a draft plan which fixes leaks and provides investment into improving sewage treatment capacity on an affordable Vfm basis.</p>	<p>Investment in improving our performance with respect to sewage treatment works is covered under a separate plan, the Drainage and Wastewater Management Plan. We have a statutory duty under Sections 37A-D of the Water Industry Act 1991 to produce a Water Resources Management Plan in which we must demonstrate how we will provide a reliable supply of water in the future. As such, in the WRMP, we cannot state that we will delay investment in water resources on the basis of prioritising investment in sewage treatment works.</p> <p>We know our performance on leakage isn't good enough and reducing leakage is a priority for us. We're investing significantly to tackle the amount of water that is lost from our water pipes and are committed to reduce leakage, and our plan sets out how we will meet the government ambition of reducing leakage by 50% by 2050. We have examined scenarios to achieve leakage reduction sooner (and later), but the planning challenge we face is such that demand management and building new supply resources will need to proceed in parallel.</p>	<p>No changes have been made to our plan, for the reasons set out in our consideration</p>



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		<p>The WRSE investment planning process has considered many options in meeting the challenges posed across the region. This includes transfers.</p>	
396	<p>The Environment Agency should perform its own independent technical studies to evaluate the contentious issues surrounding the Reservoir proposal, particularly the flooding risk and the level of resilience to long droughts.</p>	<p>The statutory planning process involves Water Companies producing Water Resources Management Plans and undertaking the technical studies required to underly their plans. The Environment Agency, along with our other regulators, set the Guideline which these technical studies must comply with.</p> <p>The Environment Agency are a statutory consultee of our Water Resources Management Plan. In their review, the Environment Agency consider the technical methods that we have applied in producing our plan, and review whether our technical assessments comply with the guideline.</p>	<p>No changes have been made to our plan, for the reasons set out in our consideration</p>
396	<p>The Environmental Assessments are completely biased in favour of the reservoir. Some of the suggested “benefits” being only hypothetical, and in the main dependent on third parties to implement and maintain them, including restoration of amenities (footpaths, wildlife areas, etc) that the construction of the proposed reservoir will have destroyed. -The negative impacts of noise, additional traffic and dirt associated with transporting massive quantities of materials to and from the site will have a significant detrimental impact on the neighbouring towns and villages. The reservoir will not be a leisure asset -there will be solar panel rafts across the surface, tight security of the site will be an issue of national importance.</p> <p>The draft plan does not explain why a scheme that will result in major carbon emissions is being prioritised over schemes that would have far less impact.</p>	<p>Thank you for your response. The environmental impacts of the proposals for SESRO have been assessed as part of the Strategic Environmental Assessment (SEA) of the draft and revised draft WRMP24. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. The more detailed environmental appraisal, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Therefore, a wide range of potential environmental impacts and benefits have been taken into account in weighing up the pros and cons of the SESRO options compared to alternatives.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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		<p>progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Thames Water has committed to the provision of recreation and educational opportunities as part of the SESRO scheme, the details of which will be developed as the scheme design progresses.</p> <p>As noted in our Gate 2 submission to RAPID, one of the key aspects of the SESRO site is that it has very favourable clay geology underlying the site. This means that the material needed to construct the reservoir embankments can be 'won' on site, without the need for the import of material that might be required on other sites. It is also located very close to the main arterial trunk road network, so that construction access can be facilitated from the A34 with minimal impact. Furthermore, it is adjacent to the Great West Railway and we will continue to work closely with Network Rail to facilitate a construction freight access into the reservoir site for much of the construction material needed for the reservoir, such as sand, gravel and stone. All of these measures will contribute to our overall plan to minimise the construction and operational traffic and transport impacts from the scheme. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA), including appraisal of the traffic and transport impacts of the scheme and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>Solar panels are not currently proposed as part of the SESRO options within the WRMP.</p>	



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		<p>We have undertaken an initial assessment of security risks as part of our work towards RAPID Gate 2, in order to ensure that the indicative master plan we have developed would be in accordance with Thames Water asset safety and security standards. Table 4.3 in our Gate 2 submission confirms that "There is a need to ensure the constructed infrastructure is robust and secure. In keeping with other reservoir sites, access to vulnerable assets will be tightly controlled. Access points, namely at the pumping station and riverside shaft, shall be tightly controlled as per all other Thames Water / Affinity Water infrastructure. The emergency drawdown siphons would be almost entirely buried, with the stilling chambers made secure by local access barriers / fencing. Thames Water currently allows safe public pedestrian access at Farmoor Reservoir and the Walthamstow wetlands site and similar arrangements are envisaged for SESRO. However, vehicular access to the dam crest at SESRO shall be controlled to manage the risk of damage." We will continue to develop the design of the scheme to reflect all relevant and required safety and security issues, as we progress through the next stages of scheme development.</p> <p>The carbon emissions from SESRO (as for all other options that have been considered for the WRMP) are taken into consideration in the derivation of the overall regional best value plan. The overall carbon emissions for the best value plan are lower than for the alternative plan without SESRO.</p>	
396	<p>At the same time as making such a devastating and environmentally harmful proposal, the draft plan includes statements about helping the environment. This does not equate. Also the statements about improving the environment are 'wishy washy' and do not have specific goals, of basis for measurement. It is important that there is a basis for measurement by which performance can be evaluated and a real focus on investment to protect the natural environment committed to.</p> <p>The Thameswater draft plan needs to be rejected and reconsidered by Thameswater without the reservoir. It needs to be on a Vfm and adaptive basis that shows regard for the customers and for the environment.</p>	<p>Thank you for your response. The National framework for water resources' sets out how water companies need to plan future water supplies. It sets out that water companies should work together in regional groups to plan for our future water needs while protecting the environment. Following this guidance, we have worked with five other water companies in WRSE to develop a plan for the whole of the South East region. The National Framework for Water Resources and Water Resource Planning Guidelines set out the approach that should be taken in defining a regional environmental destination, which is what has been included in both the WRSE draft plan and our draft plan. We are regulated by the Environment Agency in relation to our environmental responsibilities and the EA are</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>



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	<p>If the proposal is not rejected outright there should be a Public Inquiry to examine the South East Strategic Reservoir plans, as was done by a former Secretary of State in 2010.</p>	<p>governed by the Defra Government Department. We operate within the guidelines and legislative framework set by Defra and the EA.</p>	
396	<p>-I and my neighbours have only recently received notification from Thameswater consultants of their intention to 'carry out surveys'.</p> <p>It is also the case that Thameswater have not conducted any consultation within the village and community of East Hanney despite the reservoir being proposed here. East Hanney is defined as a 'larger village' by the District Council within the Districts development plan and accordingly, has substantial community who will be directly affected. Whilst a popup event has been held in Steventon, Thameswater have elected not to conduct consultation in the village where the community is affected. This is appalling, I know that the Parish Council -requested that Thameswater conduct consultation within East Hanney so that both the community and Thameswater may be informed, but they have not done so. This makes the proposal illegitimate having not consulted with the community concerned, and unsound as it has not been informed by the views of residents affected. As residents have not had opportunity to be presented with the details and provide local feed back, the proposal does not incorporate or address the concerns and wishes of the affected community.</p> <p>Reports provided by consultants paid for by Thameswater or other parties within the strategy group are not independent, they are incentivised by payment. Hence various of the submitted reports are biased and need to be discarded. It is essential that a truly independent review of the proposal and impact on the environment is undertaken by the environment agency.</p>	<p>We wrote to Parish Councils, including East Hanney Parish Council, on 07 February 2023 to advise them that we were contacting local landowners to request access to their land to carry out survey work and in case there are questions from members of the community who may see people doing the survey work. We subsequently wrote to the local landowners.</p> <p>We consider that we have undertaken an inclusive and robust engagement and consultation process. Throughout the preparation of the draft SE regional plan, and our draft WRMP, we have actively engaged with a wide range of stakeholders to enable them to contribute to our approach, technical work and decision-making, and input to the preparation of the draft plans. This engagement has included presentations to parish councils and local communities in the localities of proposed new water resources infrastructure. The public consultation on our draft WRMP started in December and was open for 14 weeks until 21 March 2023. We wrote to over 2,000 stakeholders to advise them of the public consultation and held nine community information events including in Abingdon, Oxford and Steventon as well as a series of stakeholder meetings to provide the opportunity for discussion. We promoted the consultation and the events through national and local media channels, social media channels as well as putting up posters in local communities. The events were hosted by a multi-disciplinary team, including planning consultants, engineers and water resources specialists, to ensure we were able to engage in detailed conversations and address questions and concerns as fully as possible at the time. Over 900 stakeholders attended these events and there were wide ranging conversations with attendees. In regard to SESRO. We understand that those located close to the reservoir have concerns and we are committed to work openly with the local communities if the scheme is progressed. In February 2023 we published a statement of community commitments to respond to some of the common issues raised in the local</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>community and we have appointed a dedicated engagement manager to ensure there is a point of contact for the local community and residents.</p> <p>In respect of the technical assessments, we have commissioned external consultants who are subject matter experts to undertake specific studies on our behalf. We obviously need to pay the consultants for the work completed, but as professionals they produce high quality, technically robust reports. The Environment Agency is involved in the technical working groups and they, alongside other regulators and stakeholders, are consulted on the scope and study methodologies which I hope addresses your concerns.</p>	
396	<p>Thames water continues to dump massive amounts of raw sewage into our waterways. It is not an impressive plan, does not deliver value for money and puts the environment at risk. At the same time the level of service being currently endured remains poor with raw sewage in our rivers, and overflows in our streets. I really do not think that this is an effective plan, and that it does not address issues.</p> <p>The plan is unsound as it has misdirection neither being adaptive or addressing core issues. Neither does it deliver value for money to the bill paying customer, instead the direction of the Plan would seem to be driven by shareholder returns.</p> <p>The proposal creates cost for the users in Thamesvalley, the construction would effectively be funded by me and all residents in the Thamesvalley catchment through my water charges but with no benefit, but at financial, community, social, and environmental cost to users. Yet Thameswater would gain a balance sheet asset (paid for by residents who have no need for the reservoir and who will not benefit from the supply), and potentially increase their share value. Thameswater would also gain long term income stream from sales out of the catchment and therefore effectively enhance and guarantee their ROI (Return on Investment) to their shareholders (who are an overseas wealth fund), and at the same time mitigate their UK tax bill for the foreseeable future by offsetting the capital cost of investment. This is really concerning and I am sure is the real reason for the inclusion of the proposed reservoir within their proposal, it is poor</p>	<p>We note your dissatisfaction with the performance of Thames Water and the regulation of the sector.</p> <p>In respect of sewage overflows, the discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>In respect of our future water supply, we face significant pressures from our changing climate and the need to protect our environment. We have been working with other water companies across the South East, and other water users, to plan our long term water supply and the purpose of the WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. The</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>value for Thameswater customers. -This is all about their financial gain, and not about value for money for the customer base. I do not think this is the type of behaviour or solution which the regulator ever envisaged.</p> <p>within the Thamesvalley area there is much need for improvement in services, Instead the practice witnessed by customers is that of ‘make do’ and pay a fine, rather than to invest for the future, Thameswater seemingly having a policy to extract as much value from the now failing water system rather than work to ensure good supply and protection of the environment.</p> <p>It takes a strategic plan to make them propose investment and when they do so, the focus of the plan is for investment which will increase their returns. At the same time they are currently recording the greatest number of events of raw sewage discharge into local rivers including into the Letcombe Brook which is a rare chalk stream, discharge being from Grove sewage works, and paying significant levels of fines for service failure.</p> <p>Rather than ensuring water supply, fixing leaks and preventing raw sewage discharge by investment in facilities, they are simply paying fines. The whole situation with Thameswater is unsatisfactory.</p> <p>Of considerable concern is the use of customer funds to pay for the reservoir. Thameswater are clearly stating that their package for the future involves significant investment which needs to be paid for, the reservoir being the major capital expenditure over the period of its development. Thameswater have stated that the cost of investment over the period to users will result in a increase in household bills, suggesting as an indication a increase in cost to each and every user Stating : This means customers may see a gradual increase in their annual bills from 2025 to 2035 of up to around £37 per year by the end of the tenyear period.</p> <p>£37 per year by the end of the 10 year period is an increase of £370 per user bill which is a material and significant increase in cost to each household. This is not an affordable investment plan and will be a significant problem for average households to be able to afford. Presumably, the bills will also be increased for cost of inflation and the average annual increase of £37 per year to fund the</p>	<p>consequences of not planning properly are huge for our economy, society and the environment. In developing and implementing the WRMP we follow a stringent regulatory process with active involvement of government and regulators who challenge us, and will hold us to account for our performance. We note your comments specifically in respect of the reservoir in Oxfordshire, based on the work completed to date we need to invest in our existing infrastructure and have set an ambitious target to halve leakage by 2050, work with government and customers to ensure we use our water resources wisely, as well as develop new sources. We will need a number of new water sources, and the reservoir is one of a combination of proposed schemes.</p> <p>In respect of shareholders and the driver for investment - Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we’re working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. The investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>On affordability, the impact on our customers bills is an important part of decision making on the extent and timing of investment. We do this in conjunction with Ofwat, the economic regulator for the water sector, through the business planning process to ensure water bills remain affordable and we help those customers who do need additional support.</p> <p>Because of the arrangements for financing the reservoir with Affinity and Southern Water the reservoir would not generate profits for Thames Water through sale of the water.</p>	



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	<p>investment, compounded. Just using inflation at 3% and compounded rates, the average increase in bills to fund Thameswater facilities will have increased by over £500 per year per household by the end of the ten year period..... As a minimum based on the current plan.</p> <p>This is an unacceptable cost to households who are already suffering high bills for a poor level of service. It is not fair for customers to have to deal with these costs arising frankly because of Thameswaters poor level of investment todote, and it is not good Value for Money. Achievement of and delivery of Value for money is essential and is not being achieved. The cost of the proposed investments Is significantly high and unaffordable due to the massive cost of the construction of the proposed mega reservoir within the draft plan.....a facility which is not needed. -Much better value for customers for Thameswater to bin the reservoir and invest in ensuring quality of water, expanding and investing in sewage works capacity, fixing the leaks and delivering water transfer. This would achieve significant saving for the customer and represent better Vfm within an achievable budget.</p>		
396	<p>Treated water leaks at the highest rate of loss for any water provider. I do not think that the Plan addresses live issues such as stopping leaks in a fast enough time frame, nor does it provide for significant much needed investment in treatment works and provision of capacity which is urgently needed. At the same time the targets for stopping leaks are only targets and not a commitment, providing within the plan only a commitment to protect rare chalk streams by 2050.....which is too little and too late.</p> <p>They have the greatest level of leaks of any water undertaker but are only proposing to fix 50% as a target.....this means that they are not going to actually achieve this, why not target 75% and have 50% delivery? This aspect of the plan is very poor and insufficient.</p> <p>there is significant need for upgrade of the infrastructure network which is old and was inherited, and which has received only limited upgrade levels under Thameswater guardianship.</p> <p>There should be no consideration of such a facility (reservoir) as it is not needed, instead they need to address the issues such as leaks which are a</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>problem caused by their failure to invest, for which they are responsible. Data evidences that the future needs can be met by simply fixing the problems.</p>	<p>our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	



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		<p>Chalk Stream</p> <p>In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first.</p> <p>To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First.</p> <p>We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
396	<p>It proposes a new mega reservoir between East Hanney and Steventon which is neither needed, nor substantiated. I strongly oppose the latest proposal from Thames Water and in the most strongest terms oppose the proposal for the provision within the plan for a mega reservoir ‘Abingdon Reservoir’ as part of their Strategic South East Strategic Reservoir Option (SESRO). Noting that the reservoir would not actually be at Abingdon, but within the flood plain of the lowland vale, mainly in the Parish of East Hanney, and partly in Steventon.</p> <p>The creation of such a reservoir as proposed would devastate both the communities of East Hanney and Steventon, as well as an area of flat open countryside between East Hanney and Steventon, south west of Abingdon. The affected landscape being a recognised the valued character landscape of the Lowland vale. -The proposal would completely destroy the character landscape and blight the affected villages within the area and way of life, as well as lead to the loss of the local established infrastructure networks.</p> <p>Its impact on character is so devastating that the value of the area, character, historical communities, and natural landscape including loss of protected species habitat, would be obliterated. There is no weight in planning terms of benefit over such a significant and extensive loss, as all valued aspects would be destroyed under the plan as proposed. -The significance of the detrimental impact on the character and way of life of those who will lose their homes, and</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>on the affected communities is immense and immeasurable, people will be permanently adversely and harmfully affected. As will the environment, with loss of habitat for wildlife and the natural environment, the area also being home to protected and rare species. The draft plan does not take this into consideration and there has not been appropriate consideration or evaluation of the harm. The provision of the proposed reservoir is clearly contrary to any positive environmental statement, and should not be taken forward, being both harmful and detrimental in all natural and environmental respects.</p> <p>Separately, the commitment within the draft plan to cease extraction of water from vulnerable chalk streams by 2050 is too little too late, this practice should cease by 2028.</p> <p>Much of the area of the proposed reservoir is recognised as being core NRN (Nature Recovery network) within the Oxford draft plan. Running through East Hanney is the Letcombe Brook a rare chalk stream and priority habitat, whose associated watercourses are directly impacted by the proposal. The Brook and its flood plan are also sensitive to flood, which the proposal does nothing to mitigate. In fact, Thameswater has not even undertaken a detailed review of the catchment area of the brook, or the impact on flood risk. How a party with responsibility for water management and provision of safe supply can make such a proposal without detailed and technical review of the area impacted, is both irresponsible and unbelievable.</p> <p>It beggars belief that Thameswater have spent so much time and tax payer funded money developing a proposed reservoir when they have not even undertaken a detailed technical assessment on the landscape, water levels, and water networks, and therefore have no detailed technical evaluation of the impact, consequential flood risk, and risk to the community.</p> <p>A previous proposal for a smaller scale reservoir was rejected at a Public Enquiry which found the project to build a reservoir in this area was unsound. This latest proposal is for an even larger reservoir with little or no new scientifically validated evidence to support a need for such a large water storage facility nor its cost effectiveness. The proposal is unsound and therefore is</p>	<p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the</p>	



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	<p>unacceptable.</p> <p>East Hanney is also a village of historical value with a large number of listed buildings and character. Much of its character value being recognised as benefiting from its setting in the lowland vale landscape, which would completely destroyed, under the proposals.</p> <p>The draft proposals do not provide focus on other means of ensuring water supply such as water transfer and desalination. Nor do they ensure sufficient investment to clean up water courses and protect against sewage discharge by ensuring investment to overhaul the sewage treatment and grey water management process. Instead there is focus on the construction of the reservoir for which need is not substantiated.</p> <p>My specific concerns include:</p> <p>Little has been done to address the adverse comments against the Reservoir highlighted by the first Public Enquiry which found the then proposal unsound.</p> <p>I have legitimate concerns about flooding risk to my family home and the village in which we live, especially when Thames Water’s own consultants stated there was insufficient flood compensation area within the proposed site for any reservoir above 75 million cubic metres. And also considering that a detailed technical analysis of the area has not been undertaken.</p> <p>Even this figure of 75 million cubic meters is unsound as the proposed building plot will prevent the natural drainage of the existing flood plain, most probably diverting flood waters into the neighbouring villages of East Hanney and Steventon. Both communities suffered devastating floods in 2007 and 2008, and East Hanney has experienced several other floods since then, the regularity of which is well recorded and is now near annual. The extent of flood can only be expected to increase with climatic change and the impact on the local environment which the presence of a vast body of water within the locality would cause. Local volunteers in the Hanneys, Grove and along other water courses in</p>	<p>2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The SESRO scheme is founded in the bedrock clay on the proposed site. It will not therefore require 'waterproofing layers' instead being underlain by layers of impermeable clay which will ensure the structure is watertight. There are small area of permeable geology (greensands) across certain parts of the site that would require sealing but this is standard practice in reservoir construction.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll 	



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	<p>this part of the Vale have strived to minimise the impact of future flooding events through hard physical work.</p> <p>Thameswater have not recognised the very high water levels within East Hanney, these are evidenced in recent building applications, nor is there any detail of the extent of flooding in the area. They have not understood or attempted to undertake detailed technical review of water levels and flood water flows prior to developing the proposal, and thus are making a proposal which is not informed and has no consideration of impact on the surrounding landscape, communities and consequences of flood risk. Thus, is entirely unsound.</p> <p>The latest application to increase the size of the footprint for the proposed reservoir has not recognised recent new building developments or considered planned new housing developments.</p> <p>I strongly believe this reservoir will compromise the integrity of the new Abingdon flood relief scheme. -The height of the reservoir and the depth of the water will mean a very high pressure will be exerted on any waterproofing clay layers beneath the reservoir. These clay layers are unlikely to be uniformly thick and may not even be complete. The likelihood of seepage is very high under this pressure. Within the proposals there is no real consideration of the consequence of 'Catastrophe'! I have worked for 20 years on major infrastructure projects within the UK. For every scheme which either services or has impact on the public, there has had to be within the business case a detailed analysis of the risk of Catastrophe. I do not see this within the proposal provided. There is no supporting data to provide a case for protection of both the communities and the infrastructure from this risk. It is clear that the risk of catastrophe exists and the proposal should not be taken forward as currently proposed because of this risk, as well as the many other harmful and detrimental impacts that the proposal carries. Catastrophic risks include; Structural failure, Unknown performance (no previous reservoir of this size has ever been built -and therefore tested), Terrorist attack, Strategic war fare risk (the reservoir is located close to Harwell the atomic research area, and the fusion centre) direct attack (nuclear or otherwise) on the structure will flood the area, and</p>	<p>need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate;</p> <ul style="list-style-type: none"> • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity</p>	



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	<p>obliterate the lives of all in the nearby communities), the location is therefore entirely flawed and the proposal for such a large mega reservoir should not therefore be taken forward.</p> <p>In respect of structural failure, Thameswater are simply saying that use of bunds is proven, however, all of their examples are for either much smaller structures, or for single walled dams. They do not have evidence of a structure of the size and scope which they are proposing, this is therefore uncharted risk. Bearing in mind that the purpose of the proposed reservoir is as 'spare capacity', and for Thameswater to be able to sell water to other partners and therefore not to meet local need, the risks associated with the proposal to the local area and community are not substantiated. There is no need for the reservoir, there are alternative sources for water supply within the wider strategic plan, and therefore there should not be a reservoir which is both detrimental and harmful to the area and carries risk. The whole concept is unsound and unfounded.</p> <p>Calculations indicate that the depth of water proposed in the scheme will exert a pressure of 245kPa / 2.42 atmospheres or 35 pounds per square inch, over its entire area. To put this into context that is half the pressure in a bottle of champagne, which would provide sufficient pressure to find weaknesses in the waterproof layer of this reservoir, such risk naturally increasing over time. The period needed to fill the reservoir also exposing the walls to environmental elements, and enabling early development of flaws and routes for seepage. Any seepage from this mass of water will raise the local water table. As I have mentioned above the water table is already, just a few centimetres below the surface, and often percolates to the surface pooling in various parts of the village, already. In some areas gardens are not useable at certain times of the year as a consequence. An increase in water table may arise not only because of seepage, but also because of the impact on the local drainage network, as well as the overall impact on the level of water within the localised climate arising because of the size of the waterbody, there is particular impact on East Hanney because of the level of flooding and high water table that already exists, which makes the proposed location unsuitable.</p>	<p>including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	



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	<p>The integrity of this scale of proposed reservoir with its scope for 150 million cubic metres of water across its large footprint has not been demonstrated to have been properly assessed. There are no indications in the plans to mitigate any errors in waterproofing the reservoir. One small weakness or other compromise of its integrity will be devastating for the immediate villages and those other villages nearby.</p> <p>Nobody has built a bunded reservoir of this scale, or any scale near this proposal, anywhere in the world.</p> <p>Whilst the reservoir is presented as a new resource, this is not the case, they are not generating new water for example as a desalination plant would.</p> <p>It is highly concerning, that the proposed reservoir will not be providing a new resource, all it is doing is taking existing resource from the Thames which could be used for Water Transfer, (which is far more environmentally beneficial) and thus actually causing major adverse impact by way of reduction of water supply and resource. Thameswater under this aspect of the draft plan will not be providing new resource, but instead simply using existing more costeffective natural resource on an ineffective and costly basis, which is not to meet need, but to generate sales to other areas for income flow.</p> <p>Unlike reservoirs where rivers and streams are formed by building a dam across a valley collecting water from new sources, as mentioned, this reservoir will not provide any 'new' water into the Thames area as it will simply store what is already in the Thames. It will thus not provide extra water supplies or additional drought resilience.</p> <p>The proposed reservoir will take 15 years to design and build and rather more than 3 years to fill. This is an optimistic timeframe since it takes no account of delays which makes this scheme a very longterm project the need for which has not been justified in the first place. Other more viable and resilient schemes such as the transfer of water from the River into the Thames could be available in a much shorter time frame and with far less environmental impact, local community disruption and blight. -The water from this reservoir is not even for</p>		



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	<p>local consumption and may not even be for London, Affinity and other water companies in the south east being identified as the major customers. This is just a commercial venture by a company that makes no contribution to the Exchequer through business taxes. Profit for a greedy and underperforming services organisation who demonstratively pay fines (ultimately paid for by users) than sort issues, rather than justified need should not be permitted to impact so heavily on so many nonbeneficiary’s lives.</p> <p>It is concerning that Thameswater have not brought forward any proposal for a material new investment in general infrastructure other than the reservoir.</p> <p>The Thames Water SESRO’s draft plan has been made without proper consideration of alternative solutions, such as facilitating the transfer water from other areas to meet demand in the South East, or prioritising schemes for recycling water or desalination, especially as the water stored in the proposed reservoir is not for local consumption but for profitable sales to areas not affected by its long construction or its permanent massive disturbance. Nor is it about addressing issues for which they are paid by users and for which they are responsible such as the clean and safe processing of sewage. It is very evident that building this massive reservoir would cause permanent and irreversible harm to an enormous area of the local countryside, it would be a distraction from their obligations, and need resourcing.</p> <p>There are also concerns about the impact on the road network and on the potential for restoring the Wilts and Berks Canal since the reservoir would cover the route of this waterway. The plan also fails to consider the impact on existing solar farms located on the site, on local archaeology, and on the local air quality.</p> <p>The reservoir as proposed does not provide leisure or community benefits. It does not seek to enhance the environment, nor meet local and national government planning objectives for protection of the environment and wildlife. It is contrary to national carbon footprint and biodiversity objectives, it will cause extensive damage to the natural environment and pollute the area throughout the period of its construction. Thereafter its impact on the local environment and</p>		



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	<p>localised climate will be devastating. It is also proposed to be of such a size and height that it will blight the landscape, and affect day light hours locally. -This is all harmful, unnecessary, and unwanted, unsupported and without substantiated evidence of need.</p> <p>The majority of local residents are also concerned about the impact on the inevitable increased flood risk in the immediate area from the proposed reservoir and the potential impact on the landscape and protected species. There are many better and more innovative solutions than a reservoir which would cost less and be far less destructive for the environment.</p> <p>A previous attempt to build a reservoir was rejected by public enquiry because the applicants failed to make a case for the need for this specific massive reservoir solution and failing to include other potentially cheaper, less disruptive, and have less impact on the environment.</p> <p>The same situation is arising here, Thameswater have not addressed issues or recommendations, instead they are now proposing a even larger and more damaging reservoir, the case for which remains unsubstantiated.</p> <p>I am calling on you to Refuse the South East Strategic Reservoir plan to build the reservoir. There needs to be focus on effective solutions such as water transfer which will provide supply much quicker than the timeframe of the proposed reservoir, and which is healthier for the environment, and also adaptive. The reservoir is proposed as a reserve and as a basis for sale outside of the area, it is consequently in excess of demand and is not needed. A further review in 10 years time after implementation of water transfer will evidence the lack of need, in the meantime investment of money and resource in fixing leak and improving sewage treatment and helping the quality of water in our rivers, would be a much better and welcomed plan.</p> <p>There should be no further consideration of the proposed Abingdon reservoir until Thameswater -have performed the necessary studies to evaluate the SevernThames water transfer scheme properly as an alternative and submitted them to public scrutiny.</p>		



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397	<p>Why is the proposal to transfer water using the Thames and Severn canals not being given fair and unbiased consideration?</p> <p>I SUPPORT the Cotswold Canals SevernThames Transfer (CCSTT) scheme for the following reasons</p> <ul style="list-style-type: none"> • The “Best Value” aspiration of the WRSE Plan is not met by using a long pipeline in preference to using the restored Cotswold Canals. A buried pipeline offers virtually no additional Natural Capital benefit. • The response to the emerging WRSE Best Value plan demonstrated very strong support for the Cotswold Canals transfer scheme. There is no detailed information to justify the statement “The use of the Cotswold Canals as part of the Severn Thames Transfer rather than a new pipeline, has been explored but is a more costly option” (page 28 of the draft WRSE Best Value Plan). • Given the imminent shortage of water supplies and ongoing uncertainties in demand reduction, climate change etc., it makes no sense to build the long lead time SESRO first and the shorter lead time STT scheme after it. The CCSTT scheme should be delivered as soon as possible to reduce risk and potentially bring forward environmental abstraction reductions. • Selecting the pipeline option for the SevernThames Transfer lacks the environmental and social capital ambition that the canal offers. 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
780	<p>projected population figures are exaggerated</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.	
780	The details of the plan are not clear and neither are the costs, economic or environmental. Without transparency, it is impossible to accurately compare options (e.g. Severn Thames Transfer vs. giant reservoir).	Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
780	<p>I object to the Thames Water Plan for the following reasons:</p> <p>Need: The proposed reservoir is not actually needed; the reasons Thames Water have advanced for creating it have changed completely since it was first mooted.</p> <p>Environment: This massive and invasive project would cause substantial environmental damage during construction, and unknown effects afterward.</p> <p>Better Solutions: There are alternative solutions available -water transfer, recycling and desalination -which would be droughtresilient and more costeffective.</p> <p>Risk: The risk of flooding has not been seriously assessed, nor has the risk of catastrophic inundation/dam breach.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>The overall plan is based upon delivering the best value solutions for the South-East to solve the supply-demand problem forecast for the future. The timing and selection of schemes (from a wide range of options including transfer, desalination and recycling) provides the best-value combination of options to meet future needs, when required. The selection of options</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>follows the requirements of the Environment Agency's Water Resource Planning Guideline. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. For the revised draft WRMP24 we have further examined the range of possible future scenarios and have considered the wide range of risks that we may encounter in the future and given the range of risks which exist, have selected SESRO 150Mm3 in 2040 to provide security for the regions supplies.</p>	
790	fixing the ridiculous number of leaks that there are on Thames water's system.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
790	<p>I am writing in response to your dWRMP as an Abingdon resident and also manager of one of the farms that stands to be decimated by the reservoir plans. I urge you reconsider the reservoir plans in favour of Severn Thames transfer, and water reuse/desalination.</p> <p>In the current world we cannot afford to lay waste to 5000 acres of productive farmland (food and renewable energy) and wildlife habitats. There are also massive doubts about how safe the reservoir would be to local villages from a flooding/water table change point of view, let alone the risk of failure of an unproven reservoir design.</p>	<p>The change in landuse at the proposed SESRO site, from productive farmland into open water and created aquatic and terrestrial habitats, is taken into account in our appraisal of the Natural Capital Accounting (NCA) for the scheme. This is one of the key metrics used to determine the overall best-value plan for the South East, hence the change in land use is taken into account in the decision making framework.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed,</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>Another big problem is the 10 plus years of massive disruption to the local area with the huge amounts of traffic a project of that size would put onto an already overstressed local road network.</p> <p>Please reconsider these unnecessary reservoir plans and listen to the very sensible alternatives put forward by GARD.</p>	<p>constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p>	



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		<p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. For the revised draft WRMP24 we have further examined the range of possible future scenarios and have considered the wide range of risks that we may encounter in the future and given the range of risks which exist, have selected SESRO 150Mm3 in 2040 to provide security for the regions supplies.</p>	
791	<p>It is my considered opinion that the proposed Deerhurst pipeline is not the optimum method for transferring water from the Severn to the Thames. Having been employed by several construction contractors, I can see that it would be an opportunity to increase their tendered costs on a grand scale. The certain occurrence of soft spots and rock, not to mention land drains and many services, would present their quantity surveyors with a colossal opportunity to claim " extras" on the contract, Far more cost certainty can be assured using the Cotswold Canals as a method of transferring the required water from west to east, This has the additional benefit of ensuring a considerable resource for the health and recreation of future and present generations of people from all over the country.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
804	<p>It is clear that figures quoted in the draft plan grossly overestimate future population figures for the region, using national growth estimates rather than more realistic figures for the area of concern. This makes the assessment of the issues of supply and demand complete nonsense.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available. National growth rates are lower than the areas of concern where growth has historically been considerably higher and continues to be predicted to be higher into the future.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
804	<p>I am writing in response to strongly oppose the Thames Water South East Strategic Reservoir Option (SESRO) latest proposal to build an enormous unnecessary reservoir in the flood plain of the Vale of the White Horse, devastating an area of flat open countryside southwest of Abingdon between East Hanney and Steventon. -A previous proposal for a smaller scale reservoir was rejected at a Public Enquiry which found the project to build a reservoir in this area was unsound. This latest proposal is for an even larger reservoir with little or no new scientifically validated evidence to support a need for such a large water storage facility nor its cost effectiveness. The proposal is unsound</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>and therefore is unacceptable.</p> <p>My specific concerns include:</p> <p>Little has been done to address the adverse comments against the Reservoir highlighted by the first Public Enquiry which found the then proposal unsound.</p> <p>I have legitimate concerns about flooding risk to my family home and the village in which we live, especially when Thames Water’s own consultants stated there was insufficient flood compensation area within the proposed site for any reservoir above 75 million cubic metres. Even this figure is unsound as the proposed building plot will prevent the natural drainage of the existing flood plain, most probably diverting flood waters into the neighbouring villages of East Hanney and Steventon. Both these communities suffered devastating floods in 2007 and 2008, and several other not so serious floods since then. Local volunteers in the Hanneys, Grove and along other water courses in this part of the Vale have strived to minimise the impact of future flooding events through hard physical work.</p> <p>The latest application to increase the size of the footprint for the proposed reservoir has not recognised recent new building developments or considered planned new housing developments. I strongly believe this reservoir will compromise the integrity of the new Abingdon flood relief scheme. -The height of the reservoir and the depth of the water will mean a very high pressure will be exerted on any waterproofing clay layers beneath the reservoir. These clay layers are unlikely to be uniformly thick and may not even be complete. The likelihood of seepage is very high under this pressure. Calculations indicate that the depth of water proposed in the scheme will exert a pressure of 245kPa / 2.42 atmospheres or 35 pounds per square inch, over its entire area. To put this into context that is half the pressure in a bottle of champagne, which is plenty of pressure to find weaknesses in the waterproof layer of this reservoir. Any seepage from this mass of water will raise the local water table and many of us who live locally and dig in our own gardens know how high that is already, just a few centimetres below the surface. The integrity of this scale of proposed</p>	<p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The</p>	



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	<p>reservoir with its scope for 150 million cubic metres of water across its large footprint has not been demonstrated to have been properly assessed. There are no indications in the plans to mitigate any errors in waterproofing the reservoir. One small weakness or other compromise of its integrity will be devastating for the immediate villages and those other villages nearby.</p> <p>Nobody has built a bunded reservoir of this scale, or any scale near this proposal, anywhere in the world.</p> <p>Unlike reservoirs where rivers and streams are formed by building a dam across a valley collecting water from new sources, this reservoir will not provide any 'new' water into the Thames area as it will simply store what is already in the Thames. It will thus not provide extra water supplies or additional drought resilience.</p> <p>The proposed reservoir will take 15 years to design and build and rather more than 3 years to fill. This is an optimistic timeframe since it takes no account of delays which makes this scheme a very longterm project the need for which has not been justified in the first place. Other more viable and resilient schemes such as the transfer of water from the River into the Thames could be available in a much shorter time frame and with far less environmental impact, local community disruption and blight. -the water from this reservoir is not even for local consumption and may not even be for London, Affinity and other water companies in the south east being identified as the major customers. This is just a commercial venture by a company that makes no contribution to the Exchequer through business taxes. Profit for a greedy organisation rather than justified need should not be permitted to impact so heavily on so many nonbeneficiary's lives.</p> <p>The Thames Water SESRO's draft plan has been made without proper consideration of alternative solutions, such as facilitating the transfer water from other areas to meet demand in the South East, or prioritising schemes for recycling water or desalination, especially as the water stored in the proposed reservoir is not for local consumption but for profitable sales to areas not</p>	<p>non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The SESRO scheme is founded in the bedrock clay on the proposed site. It will not therefore require 'waterproofing layers' instead being underlain by layers of impermeable clay which will ensure the structure is watertight. There are small area of permeable geology (greensands) across certain parts of the site that would require sealing but this is standard practice in reservoir construction.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow</p>	



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	<p>affected by its long construction or its permanent massive disturbance. It is very evident that building this massive reservoir would cause permanent and irreversible harm to an enormous area of the local countryside.</p> <p>Better alternatives are more readily available than a grotesque banded reservoir towering above the flat agricultural landscape that this will destroy forever.</p> <p>There are concerns about the impact on the road network and on the potential for restoring the Wilts and Berks Canal since the reservoir would cover the route of this waterway. The plan also fails to consider the impact on existing solar farms located on the site, on local archaeology, and on the local air quality.</p> <p>The draft plan does not explain why a scheme that will result in major carbon emissions is being prioritised over schemes that would have far less impact.</p> <p>Many local residents are also concerned about the impact on the inevitable increased flood risk in the immediate area from the proposed reservoir and the potential impact on the landscape and protected species. There are many better and more innovative solutions than a reservoir which would cost less and be far less destructive for the environment.</p> <p>A previous attempt to build a reservoir was rejected by public enquiry because the applicants failed to make a case for the need for this specific massive reservoir solution and failing to include other potentially cheaper, less disruptive, and have less impact on the environment.</p> <p>The Environmental Assessments are completely biased in favour of the reservoir. Some of the suggested “benefits” being only hypothetical, and in the main dependent on third parties to implement and maintain them, including restoration of amenities (footpaths, wildlife areas, etc) that the construction of the proposed reservoir will have destroyed. -The negative impacts of noise, additional traffic and dirt associated with transporting massive quantities of materials to and from the site will have a significant detrimental impact on the neighbouring towns and villages. The reservoir will not be a leisure asset -there</p>	<p>summer periods that would otherwise not be available for use. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices, Appendix J.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	



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	<p>will be solar panel rafts across the surface, tight security of the site will be an issue of national importance.</p> <p>I am calling on you to Refuse the South East Strategic Reservoir plan to build the reservoir until they have performed the necessary studies to evaluate the SevernThames water transfer scheme properly as an alternative and submitted them to public scrutiny. Further to request the Environment Agency to perform its own independent technical studies to evaluate the contentious issues surrounding the Reservoir proposal, particularly the flooding risk and the level of resilience to long droughts. And if not rejected outright to call a Public Inquiry to examine the South East Strategic Reservoir plans, as was done by a former Secretary of State in 2010.</p>		
804	<p>I am writing on behalf of East and West Hanney residents and in particular those residents who have volunteered to join working parties each month since 2009 following horrendous floods in our villages to protect our homes from further flood disasters. We strongly oppose the Thames Water South East Strategic Reservoir Option (SESRO) latest proposal to build an enormous unnecessary reservoir in the flood plain of the Vale of the White Horse, devastating an area of flat open countryside southwest of Abingdon between East Hanney and Steventon. A previous proposal for a smaller scale reservoir was rejected at a Public Enquiry which found the project to build a reservoir in this area was unsound. This latest proposal is for an even larger reservoir with little or no new scientifically validated evidence to support a need for such a large water storage facility nor its cost effectiveness. The proposal is unsound and therefore is unacceptable.</p> <p>Our specific concerns include:</p> <p>Little has been done BY Thames Water to address the adverse comments against the Reservoir highlighted by the first Public Enquiry which found the then</p>	<p>The 2010 Public Inquiry was associated with Thames Water's WRMP and not a request for approval of a scheme to supply London. SESRO was included in the draft of this previous plan in order to meet the needs of future uncertainties in the available supply of water from existing sources. This need is now reinforced and increased by the Environment Agency's future abstraction licensing proposals to reduce unsustainable abstractions from the most vulnerable environments. This need is built into the demand forecast within WRMP24, but now reflect a collective regional need across the Water Companies in the WRSE region.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>proposal unsound.</p> <p>We have legitimate concerns about flooding risk to our homes and the villages in which we live, especially when Thames Water’s own consultants stated there was insufficient flood compensation areas within the proposed site for any reservoir above 75 million cubic metres. Even this figure is unsound as the proposed building plot will prevent the natural drainage of the existing flood plain, most probably diverting flood waters into the neighbouring villages of East Hanney and Steventon. Both these communities suffered devastating floods in 2007 and 2008, and several other not so serious floods since then. Local volunteers in the Hanneys, Grove and along other water courses in this part of the Vale have strived to minimise the impact of future flooding events through hard physical work.</p> <p>The latest application to increase the size of the footprint for the proposed reservoir has not recognised recent new building developments or considered planned new housing developments. We strongly believe this reservoir will compromise the integrity of the new Abingdon flood relief scheme. -The height of the reservoir and the depth of the water will mean a very high pressure will be exerted on any waterproofing clay layers beneath the reservoir. These clay layers are unlikely to be uniformly thick and may not even be complete. The likelihood of seepage is very high under this pressure. Calculations indicate that the depth of water proposed in the scheme will exert a high pressure over its entire area. This level of pressure will find any weaknesses in the waterproof layer of this reservoir. Any seepage from this mass of water will raise the local water table and many of us who live locally and dig in our own gardens know how high that is already, just a few centimetres below the surface. The integrity of this scale of proposed reservoir with its scope for 150 million cubic metres of water across its large footprint has not been demonstrated to have been properly assessed. There are no indications in the plans to mitigate any errors in waterproofing the reservoir. One small weakness or other compromise of its integrity will be devastating for the immediate villages and those other villages nearby.</p>	<p>through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraybury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the</p>	



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	<p>Nobody has built a bunded reservoir of this scale, or any scale near this proposal, anywhere in the world.</p> <p>Unlike reservoirs where rivers and streams are formed by building a dam across a valley collecting water from new sources, this reservoir will not provide any 'new' water into the Thames area as it will simply store what is already in the Thames. It will thus not provide extra water supplies or additional drought resilience.</p> <p>Other more viable and resilient schemes such as the transfer of water from the River into the Thames could be available in a much shorter time frame and with far less environmental impact, local community disruption and blight. -the water from this reservoir is not even for local consumption and may not even be for London, Affinity and other water companies in the south east being identified as the major customers. This is just a commercial venture by a company that makes no contribution to the Exchequer through business taxes. Profit for a greedy organisation rather than justified need should not be permitted to impact so heavily on so many nonbeneficiary's lives.</p> <p>The Thames Water SESRO's draft plan has been made without proper consideration of alternative solutions, such as facilitating the transfer water from other areas to meet demand in the South East, or prioritising schemes for recycling water or desalination, especially as the water stored in the proposed reservoir is not for local consumption but for profitable sales to areas not affected by its long construction or its permanent massive disturbance. It is very evident that building this massive reservoir would cause permanent and irreversible harm to an enormous area of the local countryside.</p>	<p>scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The SESRO scheme is founded in the bedrock clay on the proposed site. It will not therefore require 'waterproofing layers' instead being underlain by layers of impermeable clay which will ensure the structure is watertight. There are small area of permeable geology (greensands) across certain parts of the site that would require sealing but this is standard practice in reservoir construction.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan.</p>	



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	<p>It is clear that figures quoted in the draft plan grossly overestimate future population figures for the region, using national growth estimates rather than more realistic figures for the area of concern. This makes the assessment of the issues of supply and demand complete nonsense. Better alternatives are more readily available than a grotesque banded reservoir towering above the flat agricultural landscape that this will destroy forever.</p> <p>The draft plan does not explain why a scheme that will result in major carbon emissions is being prioritised over schemes that would have far less impact.</p> <p>Many local residents are also concerned about the impact on the inevitable increased flood risk in the immediate area from the proposed reservoir and the potential impact on the landscape and protected species. There are many better and more innovative solutions than a reservoir which would cost less and be far less destructive for the environment.</p> <p>A previous attempt to build a reservoir was rejected by public enquiry because the applicants failed to make a case for the need for this specific massive reservoir solution and failing to include other potentially cheaper, less disruptive, and have less impact on the environment.</p> <p>The Environmental Assessments are biased in favour of the reservoir. Some of the suggested “benefits” being only hypothetical, and in the main dependent on third parties to implement and maintain them, including restoration of amenities (footpaths, wildlife areas, etc) that the construction of the proposed reservoir will have destroyed. -The negative impacts of noise, additional traffic and dirt associated with transporting massive quantities of materials to and from the site will have a significant detrimental impact on the neighbouring towns and villages. The reservoir will not be a leisure asset -there will be solar panel rafts across the surface, tight security of the site will be an issue of national importance.</p>	<p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised."</p> <p>This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	
809	<p>I oppose Thames Water's plans to construct an enormous reservoir near Abingdon. Please do all you can to insist that Thames Water get ahead quickly with implementing the far less invasive and cost effective water transfer scheme from the Severn and make progress on other water transfer possibilities, such</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we</p>



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	<p>as from the Grand Union canal, before any more consideration is given to the proposed Abingdon Reservoir.</p>	<p>events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>received about the Severn Thames Transfer.</p>
809	<p>I am increasingly concerned not just about the potentially appalling local impact of such a structure (reservoir) but also that the need for it has not been demonstrated, not least by the use of inflated population growth forecasts.</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements, we do not produce our own forecasts of growth. We have no reason to believe that these forecasts have been inflated. We have then used independent consultants, Edge Analytics, to align this data with our Water Resource Zone boundaries and to extend</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>the horizon to 2075. Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan. Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios. Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	
809	<p>I understand that there are plans to pipe water out of Oxfordshire for sale to other water companies: shareholders' profits should not take precedence in any plans under consideration.</p>	<p>In line with government guidance we have worked with other water companies across the South East to plan a secure and sustainable water supply for customers over the next 50 years. A number of the new water resources proposed are collaborative, shared resources and the investment is likely to follow the successful model of the Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
809	<p>Thames Water need to drastically improve their current very poor record on leak reduction, and water recycling, and to invest far more in sewerage systems.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is</p>	



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		<p>already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p>	
810	Thames Water's case is based on dreamt up figures for population growth in its area, which are much larger than the official national estimates.	All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.	We have provided information in response to your comments, there are no changes as a result of your representation.
810	One can only assume that TW has taken this position in order to profit from destroying a large area of the Vale of White Horse, funding it from residents' water bills over which residents would have no control. All major infrastructure projects in the UK end up massively over budget and time (Cross rail, HS2 etc), and the TW reservoir would be no exception given the immense nature of the work required. TW say they would sell water to other companies, yet the aim of the reservoir which they give is to guarantee supply in times of drought. The	<p>Our water resources are under pressure from a changing climate, the need to protect the environment alongside accommodating future growth. Without action, we could face a substantial shortfall of one billion litres of water a day in the next 50 years. We need to plan ahead to ensure we can provide a secure and sustainable water supply to future generations, whilst protecting the environment.</p> <p>In line with government guidance we have worked with other water</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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	<p>WRSE is probably in favour because the other companies involved would not have the worry, nor have the expense.</p>	<p>companies across the South East to plan the future water supply for customers over the next 50 years. The foundation of the long term plan is tackling leakage and helping customers to use water wisely but we will also need to develop new sources of water. Several new water resources are proposed and the large new resources such as the proposed reservoir are collaborative, shared resources and the investment is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p> <p>Because of the arrangements for financing the reservoir with Affinity and Southern Water the reservoir would not generate profits for Thames Water through sale of the water.</p>	
810	<p>Thames Water should first put all its effort and resources into stopping the leaks. These lose a large fraction of the water capacity of the proposed reservoir each year. Not only are there leaks, but TW constantly pollutes rivers through inadequate sewage treatment. One wonders how on earth we could trust TW to construct a major reservoir!</p> <p>Climate change is given as another reason for a reservoir, yet even if there are bigger fluctuations in rainfall than previously experienced, hosepipe bans and not washing one's car are a much more acceptable inconvenience than a reservoir.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the</p>	



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		<p>comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p> <p>South East Strategic Reservoir Option (SESRO/Abingdon Reservoir) The SESRO scheme, about which you have concerns, is one part of a wider programme of resource development and demand management options. As a water storage solution, it is an important asset in the resilience against potential water shortages arising from forecast population increases and drought. The reservoir has the potential to offer a wide range of opportunities including creating a place that people would want to visit for their health and wellbeing, new accessible leisure and recreational facilities from walking, cycling, fishing, birdwatching and a wide range of water sports for all as well as providing opportunities to host sporting events with access to new facilities for local people. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for the local area and wider Oxfordshire. It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them.</p> <p>Hosepipe bans and non-essential use bans (drought measures) All water companies have a Government approved Drought Plan, which includes a robust sequence of demand reduction and customer engagement actions that are implemented according to water resource status and</p>	



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		<p>demand forecast. Our Drought Plan includes the use of Temporary Use Bans (hosepipe bans) and Non-Essential Use Bans (a set of further water restrictions). These measures are put in place only in periods of extreme drought, following a legal process and customer consultation period, to reduce the amount of additional discretionary water use (e.g. outdoor, garden), which contributes to peak demand periods. The hosepipe ban and range of other demand reduction activities are all aimed to help reduce household and business water use, protecting water availability for more essential services and the local environment.</p>	
810	<p>It appears that Thames Water (TW) has already decided that it feels a huge 'Abingdon' reservoir is its best option, and we are only able to comment on its size! Thames Water ask us which we would favour, -a 100 Mm3or 150 -Mm3 capacity reservoir. We are in favour of NO RESERVOIR. This situation is absurd, and TW needs to reconsider its case for a reservoir.</p> <p>We have not followed any details of just how TW would treat such a massive intrusion into the life of local residents. Ten years of construction misery seems to be unavoidable, with road diversions, traffic holdups, noise and pollution very likely. The carbon cost of the construction would be enormous. We question how such a huge reservoir would be filled from a slowmoving river Thames. Back of the envelope calculations suggest it would take seven years unless a high proportion of the river were diverted. This would cause less flow lower down river from which water might be taken.</p> <p>If it were to be built, a reservoir would present very serious flood problems in the Vale, since flood plains would be lost. The water table is already very high in the area. One also questions how leakproof the containment would be. The huge area of base and walls would have to be made absolutely leaktight or a major disaster could follow. It would always be a threat.</p> <p>In our opinion other sources of water replenishment must be developed as a priority, over and before a reservoir. In particular transfer from the River Severn should be the first course of action. This cannot be as costly as building an enormous reservoir and would provide a constant supply. Other water sources</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>should be developed – desalination, efficient sewage treatment.</p> <p>We object to such a huge threat to the environment of an area of the Vale which is close to the beautiful Downs conservation area. In future the country will need to grow much more of our own food, and the proposed reservoir area should remain in agricultural use.</p>	<p>under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km 	



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		<p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The SESRO scheme is founded in the bedrock clay on the proposed site. It will not therefore require 'waterproofing layers' instead being underlain by layers of impermeable clay which will ensure the structure is watertight. There are small area of permeable geology (greensands) across certain parts of the site that would require sealing but this is standard practice in reservoir construction.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We consider that the best value solution to the adaptive planning problem that we face is to construct the SESRO option to be ready for use from 2040 onwards. This involves beginning the consenting process as soon as possible. Our decision to promote construction of SESRO ahead of STT is based on the assessment that plans in which the STT is used in place of SESRO are more expensive, result in more carbon emissions, and do not deliver the same environmental or resilience benefits, particularly under severe future scenarios. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
846	The Draft Best Value Plan includes (preferred) options such as a large reservoir at Abingdon which is vociferously opposed by a well organised campaign which doesn't yield a particularly large output which won't come on line until 2040 even if it got planning permission tomorrow. More waste water infrastructure and	Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we



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	<p>putting off a water transfer scheme until after 2040.</p> <p>Why prioritise projects with long lead times over better value schemes that have local (including council and business) support? A restored Thames and Severn Canal will greatly enhance the heritage of the Stroud valley and the canal up through to the Sapperton Tunnel and beyond to the Thames. I for one would love to see the canal operating again in my lifetime. Canal restoration projects have been a boon to regeneration in many parts of the country. Consider Birmingham and Manchester.</p>	<p>events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>received about the Severn Thames Transfer.</p>
846	<p>What social and environmental benefits come from buried pipelines, wastewater treatment and god forbid, desalination plants?, Would a pipeline really cost less to build and operate? Why move the goal posts on the pipeline capacity? Up until now only 300MI/d capacities have been considered. I don't see where you could get 500MI/d from except in the winter when transfer wouldn't be required anyway. The technical modelling seems to show less than 200MI/d available by STT pipeline throughout the planning period.</p>	<p>The STT interconnector via canal would bring environmental and social benefits, but it does so a greater cost and with greater operational risks than a pipeline interconnector.</p> <p>The feasible STT options (at 300, 400 and 500 MI/d capacity) available to the model are updated based on the latest understanding of the studies being undertaken as a part of the Strategic Regional Options study.</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.</p>



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	The flag of 'Maybe 500MI/d would be a good idea' serves only to remove the canal option from the models.		
846	<p>Apparently the current plan ascribes a value of the restored canal of £80 million over 80 years. £1million per annum?</p> <p>In 2013 a study for the Mayor of London ascribed a benefit of £5 billion per annum to the parks and other green/blue spaces in Greater London. A rough calculation gives £15 for each square meter of the 35,000 hectares. If you consider a canal to be of the order of at least 10m wide and 60km long you get a figure of £9 million per annum</p> <p>In 2017 the CRT ascribed a wellness benefit of £3.8 billion per annum to its 2000 mile network. £1.9million per mile, This yields a value of almost £70 million per annum to the restored cotswold canals.</p> <p>This correction would make the canal water transfer a best value option.</p>	Thank you for your comments. We have collated the response in Appendix J - Response to consultation representations on STT.	No changes have been made to our plan, for the reasons set out in our consideration
846	<p>As stated in the original methodology of the plan, analysis should include environmental and social benefits. I see that particular point is being grossly underestimated.</p> <p>I live part of the time on an active waterway. It is used by hundreds of people each day as a living space, a recreation space, a work space, a commuting route ... It draws people like a magnet because it is a peaceful, nature filled ribbon through London.</p> <p>It is a boundary, an edge. People are drawn to boundaries whether it is coastline, a river, an escarpment or a canal. People choose towpaths over streets. It is the same in Stroud where we live when we're not in London.</p>	Thank you for your response. The social benefits and disbenefits of our plan have been considered within the SEA and Natural Capital assessment of our draft and revised draft plan. Environmental metrics have been used in the overall programme appraisal of our plan.	No change has been made to the plan as a result of this response, for the reasons set out in our consideration.
874	<p>Where I believe your favoured option, is building a huge reservoir near Abingdon, (which has been talked about for over 40 years already) has this taken so long because of local opposition? Disruption to local population compulsory purchases delays and ever increasing costs, HS2 again?</p> <p>Another favoured option I believe from you is a pipeline.</p>	Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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	<p>Repeat again disruption to local population, compulsory purchases delays therefore ever increased costs, HS2 again?</p> <p>What environmental and population benefits would the pipeline bring? I can't think of a one!</p> <p>If you were to consider the 3rd option the partly restored Cotswold Canals, this would mitigate the problems shown above. The route is already there, so there would be very little opposition along its 30 mile+ route. The restoration so far has been warmly welcomed by local populations. There should be less delays by local opposition and so less inflationary costs. Already along its restored length it has been shown to enhance plant and wildlife, and peoples wellbeing via exercise and tranquility. There are several academic papers showing the benefits (one being from Manchester) The benefits really are too many to expand in this short memo, with references etc, this option is already working very successfully practically and environmentally supplying water from the River Severn to Bristol via the Sharpness Canal. Please take the Cotswold Canals option more seriously.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
880	<p>I write regarding the Thames Water Transfer Scheme. I wholeheartedly agree with the proposals of the Cotswold Canal Trust. The restored Canal is the perfect 'vehicle' to transport water from the Severn to the Thames...thus reducing the amount of additional groundwork needed. The existing route of the Canal is already a huge asset to the environment and to the general public. It would be possible to transport upto 300 million litres of water a day along this water corridor....this is surely a much more economical plan than an extensive pipeline. Aesthetically this is also the best option...as there is no intrinsic beauty in a pipeline!</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>In conclusion, I urge all involved to use the restored Canal to help transfer water from the Severn to the Thames...thereby benefitting the Customer, the Environment and the General Public.</p>	<p>ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
881	<p>My points:</p> <ol style="list-style-type: none"> 1. Why would you pursue a reservoir construction that is Hugely damaging to the environment Widely opposed Takes decades to complete...before doing the water transfer west to east that fixes your problem? 2. Why would you not choose the option that Has SUPPORT, not huge resistance Can be done quickly Is cheap to deliver and creates a resource that ADDS value Has positive impact as well as functional value...the Cotswold Canals water transfer option is (relatively) quick, easy (since the engineering work is already done for you), and delivers popular positive outcomes to your problem. Why not lead a project that the whole community can get behind not resist? 3. Your current plans take decades to deliver. Your problem, fuelled by 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>accelerating climate change, is now. So get on with it. Do the things that can deliver within a few years. CCT offer you a simply engineered water delivery solution, backup reservoirs (around the Cotswold Water Park) that both store and pump prime the main solution, a complete offer that you could enact quickly, starting immediately. And the delivered value of the scheme is positive both environmentally and for the communities affected. Winwin.</p> <p>4. Equivalent pipeline solutions deliver no environmental or community benefit and would face opposition. They are technically more expensive to operate (raising pumped water higher) and offer limited positive benefit. -</p> <p>So please opt for the comprehensive practical solution offered by the Cotswold Canal Trust and solve your South East water problems now, before it is too late.</p>	<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
884	<p>This email is to express my support for the transfer of water to London (in particular) by using existing canal routes where costeffective to do so. Cosideration of costeffectiveness should take account of environmental costs, and health and leisure opportunities and gains and longer term implications for carbon neutral construction and -operation.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
899	<p>I wish to express my support for the Cotswold Canals SevernThames Transfer Option.</p> <p>I do not believe that the “Best Value” aspiration will be met by building a long pipe line in preference to using the restored Cotswold Canals. -A buried pipeline has little to offer by way of environmental or Natural Capital gain compared with the canal.</p> <p>Best Value should include environmental & social benefits which the Canal option clearly demonstrates. -The improvement in biodiversity along restored sections of the canal together with the wellbeing of canal users has been shown. The value of the restored canal to society & the local economy has been calculated based on the Inland Waterways Association Waterways for Today Report, as being £800million over the next 80 years. -This surely should be considered.</p> <p>I understand that there are plans to build a huge reservoir near Abingdon that will take many years to complete, while the SevernThames Transfer scheme via the canal could be completed much earlier, thus providing valuable water security to the Southeast of the country. -What possible environmental & social benefits will be gained by building large wastewater treatment plants, desalination plants or burying very long pipelines?</p> <p>Another factor in favour of the canal option is that reservoirs -at the eastern end of the Severn Thames Canal are easily formed by the extraction of gravel that is currently underway. -These would be a valuable fallback option.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	I am concerned that previous very strong support for the Cotswold Canals transfer option does not seem to be influencing the plans.	Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.	
907	I just want to reiterate my support for the reservoir.	Noted, thank you.	We have provided information in response to your comments, there are no changes as a result of your representation.
909	<p>I would like to show my continued support for the use of the canal network for the transferring of water to the SE.</p> <p>I believe the benefits for future generations far out way the costs,a canal can be seen,walked,boated, cycled and would also enhance the wildlife for everyone to enjoy.</p> <p>A pipe line or reservoir gives nothing to the future generations.</p> <p>Please listen now for a better future.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.	
911	Recycling of water has been proposed. Sewage processing must be brought up to date so that water full of phosphates is not let back into rivers, killing wildlife and polluting streams.	<p>We note your dissatisfaction with the current wastewater treatment standards. Between 2025 and 2030 we will be investing at least £750m to reduce discharges of untreated sewage to sewers, and over £1bn to improve treatment processes at our sewage treatment works.</p> <p>In respect of water recycling, this is common practice as part of the existing water supply system and the level of treatment is defined by the discharge limits set by the Environment Agency. Our current level of treatment aims to ensure we meet the environmental quality standards to protect human health and the environment and provide best value for our customers.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
911	<p>1. Overall the report quite rightly puts heavy emphasis on reduction of leaks. During the drought of Summer 2022 some very large leaks on the Oxford area stayed unrepaired for far too long wasting thousands of gallons of water and impeding transport. Stopping leaks must be our top priority.</p> <p>A whilst smart meters will help people to be more aware of responsible use of water, they are expensive and may be difficult for older people to use. Education remains paramount.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>The timeliness of fixing leaks Some leaks take us more time to identify, locate or fix than we would like. Parts of our plan aim to reduce leakage through improvements in infrastructure, this should lead to less frequent incidents of this kind. Additionally, we have set out further leakage reductions that can be made through "innovations" to leakage management. These innovations are representative of improvement to technique, systems, and information. Our hope is going forward our repair teams will have the information they need to fix leaks quicker and reduce disruption. We are also using our smart meter data to identify continuous flow on our household and non-household meters and use this to identify leaks and contact customers to help fix customer-side leaks and possible internal wastage issues (leaky loos, urinals, leaking taps & showers). We are the first wholesaler to do this for businesses.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%.</p> <p>Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed un-meterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p>	



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		<p>Better metering data for customers All household customers that have had a smart meter installed currently have access to their usage and leakage information through Thames Water online. We are actively promoting online account registration to increase the customers that can benefit from both personalised water efficiency advice and paperless billing. We are currently developing new customer engagement capabilities that use smart meter consumption data to deliver proactive digital engagement for changing behaviours and enabling customer self-fixing of customer-side leakage and internal leaks. On the commercial user side, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access commercial property smart meter data on a live dashboard. The dashboard includes real time data showing any meter with Continuous flow, which can be used by Retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through Retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p>	
911	<p>In terms of new water sources, we live in the driest part of the UK. -During recent droughts, storage reservoirs like the one proposed at Abingdon have dried up in many parts of the UK. There is no stream to dam to provide water here -Rainfall is only 25% of that in the Severn Basin, yet the proposed reservoir would rely on overflow from the Thames, which flows largely through a low rainfall area. If climate continues to become hotter and drier, not only will water in the subsurface aquifer fall but surface evaporation will increase in the reservoir itself.</p> <p>For this reason the Severn water transfer scheme seems to be a much better idea. It's a no-brainer! If Australia can build the Snowy-Tumut water transfer from their eastern coast to the Murrumbidgee/Murray Basin, incorporating underground Hydro Electric Power -Stations, why can't we? Power stations would offset the cost. The proposed reservoir is limited in scope and ambitious -it would cover grade 1 agricultural land, but when rising food prices necessitate the home-grown production of more food</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan.</p> <p>Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West</p> <ul style="list-style-type: none"> The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they’d prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The change in landuse at the proposed SESRO site, from productive farmland into open water and created aquatic and terrestrial habitats, is taken into account in our appraisal of the Natural Capital Accounting (NCA) for the scheme. This is one of the key metrics used to determine the overall best-value plan for the South East, hence the change in land use is taken into account in the decision making framework.</p>	
926	<p>When I was previously involved in a consultation about a proposed reservoir in Abingdon I attended a number of meetings and presentations and, without expressing any opinion about the merits of the scheme, simply asked that before any public inquiry into a planning application, TWUL and/or the EA organise mediation as a means of narrowing the areas of dispute.</p> <p>This chapter in this long running saga actually ended through the inspector dismissing the TWUL appeal where evidence was presented by experts and lawyers on four sides, all at my expense; TWUL through my water rates, the EA</p>	<p>The Water Resources Management Plan is a statutory plan and we are required to follow the statutory process set out by the Secretary of State for the Environment, Food and Rural Affairs who, following consideration of the representations to the consultation and advice from the Environment Agency, will determine the next steps for our WRMP. This may be to approve the plan, request additional work or information on aspects of the plan, or require further scrutiny through a public hearing or a public inquiry.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>through my income tax and the county and district councils through my council tax. A huge waste of time and money but (as one of the lawyers said when I mentioned "mediation" their fees were higher if earned through "trench warfare".</p> <p>There should be a good level of agreement between the various experts involved in this project until their views are distorted (or corrupted) by their employers. It then falls to barristers to untangle the facts and reliable opinions. When this series of consultations has been completed there is no reason why a number of round table discussions are not held, managed by an expert facilitator, so that the need for a public inquiry into the subsequent planning application is reduced if not removed.</p> <p>If TWUL fail to organise the mediation of the important issues I would expect it to pay all the costs of any unnecessary public inquiry.</p>		
932	<p>I agree with the response of GARD to your proposals for a reservoir near Abingdon.</p> <p>Your proposals look very sketchy, and only a rough rehash of your earlier scheme, with no assessment of its environmental impacts.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency. The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		summer periods that would otherwise not be available for use. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan.	
933	<p>I'd like to express my considerable surprise that the Draft Regional Plan does not appear to recognise the significant benefits of the Cotswold Canals SevernTrent Transfer (CCSTT) option.</p> <p>It seems to me that the CCSTT option has the ability to provide a fast (compared to other options) and economically attractive contribution to the water supply needs in the SouthEast, with significant knockon benefits to the communities it would pass through. I do not understand why it is not being more vigorously pursued.</p> <p>With the increasing population and water demand, combined with the impact of climate change, I find it difficult to understand why a fast implementation of CCSTT isn't being put in place first, with longerterm projects being phased later in the plan. Surely a focus on a large, littlesupported reservoir is akin to putting all your eggs in one highrisk, likely to be delayed project.</p> <p>I find it very difficult to accept statements such as the CCSTT being 'a more costly option' without provision of the accompanying analysis. Such a simple, broadbrush conclusion seems to me to have a significant chance of being light on detail, and of excluding the widespread benefits. Perhaps correctly understanding and valuing those community benefits is outside the normal scope of such a review, but I urge those involved to do the necessary deepdive to ensure the benefits are properly values and included: I also urge those making the analysis to publish that detail so all can understand the conclusions.</p> <p>The CCSTT also offers considerable knockon benefits to the greater community. The benefits of proximity to watercourses for members of the public are being increasingly understood and offer significant monetary value: they should not be ignored in such a wideranging and enormous investment decision. The economic benefits of canal restoration and use to the communities involved are well understood and regularly demonstrated (see the recent IWA publication, as an example), and should, again, not be ignored when making decisions which</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>will impact us all.</p> <p>It's clear there is strong support for CCSTT in the communities involved. Why is this support not being fully reflected and taken into account as the consultations move forward?</p> <p>To maximise these community benefits, it's clear the canal restoration option is significantly superior to the buried pipeline. The buried pipeline offers significant and lengthy disruption along its line, but few benefits during its construction or afterwards.</p> <p>I urge the review to properly recognise the benefits of CCSTT, and to put their considerable resources and commitment behind implementing it at high priority.</p>		
933	<p>Are the decisions being made here similar to that shorttermism that allows the scandal of widescale and frequent release of sewage into our watercourses? Surely such decision making is prioritising commercial gain over social responsibility and is ignoring the longterm benefits of working with the wider community.</p>	<p>This is not the case. The whole purpose of the WRMP, and the process to develop it, is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. We consider cost, carbon, environmental impacts and benefits in determining the best value plan for long term water resources.</p> <p>Engagement with local communities is also part of the process, as ultimately we are making decisions for society's future water supply and the levels of service that we can provide and we need to understand communities and our customers views and priorities. Our water resources face significant pressures from our growing population and changing climate and we do need to make decisions on the type of future service we want.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
947	<p>I am writing on behalf of the Darent Valley Trout Fishers, a fishing club that that holds long term licences to fish 5 stretches of the Darent between Shoreham and Farningham. More than 70% of our 55 members live in properties serviced by Thames Water and are therefore your customers.</p> <p>Both the Club and our members, as individual customers) are concerned about the impact of water overuse on the rivers in our area, including the Darent, and beyond across the region. Your draft Water Resources Management Plan recognises these threats but in our view does not go far enough towards resolving them. The plan must commit to greater action to tackle excess use and its causes. This is vital to ensure that future water supplies are sustainable</p>	<p>Thank you for your response and for expressing your concerns. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 Ml/d and taken steps to protect some of our most sensitive rivers but we need to do more to protect the environment. In our plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. The Environment Agency set out scenarios of abstraction reduction in the 'National Framework for Water Resources'. We have considered these scenarios, alongside others, in producing our plan. Between our draft and revised draft plans, we have considered the</p>	<p>We have amended the profiles of abstraction reduction in our Revised Draft Plan, and have adopted the 110 l/h/d Per Capita Consumption Target as a planning assumption.</p> <p>We have not made other changes to our WRMP as a result of this response, for the reasons set out in our consideration</p>



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	<p>in the face of a changing climate and growing population, and are secured with minimal impact upon local rivers, lakes, wetlands and wildlife.</p> <p>The Club and its members add their voices to the calls for more sustainable water use. We want to see your plan:</p> <p>Prioritise nature: Ensuring that having enough water in our rivers to support healthy and abundant wildlife is a top organisational priority.</p> <p>Reduce water use: Helping households and businesses save water and supporting vulnerable customers, and significantly reducing leakage.</p> <p>Use winwin natural solutions: Prioritising naturebased solutions -like wetland creation -to help tackle flooding, pollution, and replenish water supplies, making sure every project improves wildlife.</p> <p>The Club is also responding to the Regional Plan Consultation for this area to let the Regional Water Resources Group know that we want to see greater ambition on ending the harm from overuse, and that we expect a bold regional plan to set the framework for that.</p> <p>we trust you will reflect the above points when refining and publishing your final Water Resources Management Plan. Bringing our waters back to health can wait no longer.</p>	<p>abstraction reduction profiles that we have adopted and have considered whether we could feasibly accelerate licence reductions in any cases. We have amended the timing for some of the potential licence reductions accordingly. Regarding the Darent in particular, we haven't made significant changes between draft and revised draft, as making a large volume of licence reductions in the Darent catchment would require very significant investment (South London & North Kent's supply system is quite different to the rest of London, involving quite a larger number of smaller sources - making a lot of abstraction reductions in this area would mean bringing more water from West London or North East London, which would mean laying very large and long pipes across London). We need to investigate the impacts of our sources in the Darent catchment to ensure that making abstraction reductions would result in sufficient environmental benefit to mean that investing in large infrastructure schemes is a good idea.</p> <p>Regarding water use, we're working with all our customers to encourage them to use water wisely. We've installed almost 700,000 smart water meters so far, and over 50% of our household customers now have a water meter. Our work has shown that having a meter can help each customer's use around 13% less water. Our WRMP is built on a foundation of leakage and usage reduction - we aim to meter as many of our customers as we can by 2035, in order that we can target water efficiency measures effectively, and will reduce leakage by 50% by 2050, as per the current government target. In our revised plan, we have adopted the 110 l/h/d by 2050 Per Capita Consumption target which the government has set. We'll need the government to introduce measures, such as minimum standards on white goods and changes to buildings regulations in order to get there.</p> <p>In the period 2025-2030, we will, as part of the WRSE Regional Group, be considering catchment options in greater depth to establish whether nature-based solutions can provide the environmental benefits needed in the future.</p>	
962	Further to your request for comment I strongly support using the Saul Junction/ Thames canal option for the transfer of water to the south for the following reasons;	Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full



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	<p>The canal can be restored within a few years, much sooner than the scheme that appears to be favoured. There are enormous social, financial and environmental benefits to be had, both locally and nationally, from the restored canal. The restoration of the canal will be less costly than alternatives, taking into account the long term benefits. Your studies show the restored canal value to be £80million. Applying factors from a number of national studies the actual value is of the order of £8090million. Please explain. Restoring the canal could offset the environmental damage from other sections of the project.</p> <p>Please advise me; 1. What possible extra environmental and social benefits are derived from buried pipelines and desalination plants? 2. Why is the reservoir with its long lead time and controversial planning history being prioritised over the Cotswold Canal?</p>	<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
966	<p>It may be boring for Thames Water's engineers but no other business would tolerate or survive financially losing 25% of their product in the distribution chain. TW is only able to accommodate this obscene loss rate because it is a poorly regulated natural monopoly. TW's commitment to fixing leaks is poor. I have reported major leaks several times with action only being taken weeks later. Even then it takes their fitters many days, sometimes weeks to complete the job. When natural gas replaced town gas in the 1970's, the gas industry replaced its entire underground distribution system in a decade. If TW were to grasp the nettle and do the same</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>with your water distribution system you would not need the proposed new reservoir or any other means of increasing your raw water supply.</p>	<p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is</p>	



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		<p>already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>The timeliness of fixing leaks Some leaks take us more time to identify, locate or fix than we would like. Parts of our plan aim to reduce leakage though improvements in infrastructure, this should lead to less frequent incidents of this kind. Additionally, we have set out further leakage reductions that can be made through "innovations" to leakage management. These innovations are representative of improvement to technique, systems, and information. Our hope is going forward our repair teams will have the information they need to fix leaks quicker and reduce disruption. We are also using our smart meter data to identify continuous flow on our household and non-household meters and use this to identify leaks and contact customers to help fix customer-side leaks and possible internal wastage issues (leaky loos, urinals, leaking taps & showers). We are the first wholesaler to do this for businesses.</p>	
966	<p>I am writing to you as a professional climatologist and Fellow of the Royal Meteorological Society to add my objection to your proposal to excavate a large reservoir between East Hanney and Steventon. The reasons for my objection are as follows:</p> <p>1. The extremely high surface area to volume ratio of the proposed reservoir will mean that evaporation rates from the water surface will be very high.</p> <p>This loss of water will be at a maximum in the summer months, when water supplies are most stretched and water levels in the River Thames, which will be used to supply the reservoir, at their lowest. In meteorological terms you want to construct a large, shallow, puddle and we all know what happens to puddles in</p>	<p>Evaporation is taken into consideration in the modelling of the reservoir and associated deployable output. Local climate effects from the reservoir, alongside all other detailed environmental issues, will be investigated in detail as part of the Environmental Impact Assessment (EIA) that would accompany any future application for development consent for SESRO. Any unacceptable impacts identified at that stage would need to be reduced to an acceptable level through appropriate mitigation or compensation measures and agreed with regulators before any consent was approved.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>dry weather. Moreover, with the global climate warming rapidly, and little prospect of this trend being reversed any time soon, the rate of evaporation from the proposed reservoir will progressively increase. You are proposing to extract water from the River Thames simply to evaporate it from your new reservoir. This is hardly environmentally responsible.</p> <p>2. This is a highly inefficient proposal which has more to do with the ego of TW's engineers and management than improving the security of water supplies to their customers. There are other, less grandiose, methods of achieving the same objective. Additionally there is the option of transporting water in a pipeline from the River Severn to the headwaters of the River Thames.</p> <p>3. Anyone who has had any dealings with TW know you to be a monumentally incompetent entity. I would not trust you to build a garden pond let alone a vast earth dam reservoir with the potential to flood a very significant proportion of Oxfordshire with all the death and injury that would involve.</p>	<p>the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of</p>	



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		<p>safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p>	



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978	The plan claims it will increase resilience to population growth. The plan's population predictions are wildly over estimated, considering that the government's latest prediction is that the population is likely to start falling in the next 1015 years.	All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.	We have provided information in response to your comments, there are no changes as a result of your representation.
978	The plan claims it will increase resilience to drought and address the potential shortfall in water from climate change. With regard to climate change, the section on this fails to address its overall effect. Sometimes more water will be available to recharge aquifers and other existing storage. Full aquifers will last much longer through dry periods and is more efficient than a reservoir but this is largely ignored.	<p>While it is true that the pervading climate change narrative is that the future will bring "warmer, wetter winters and hotter, drier summers", this cannot necessarily be translated into a narrative of fuller aquifers at the beginning of every summer. Climate change brings with it an array of risks and the full range of complexity must be considered when assessing climate change impacts. For example, hotter drier summers will mean that, in many years, there will be a large soil moisture deficit at the beginning of the autumn/winter period, meaning that there will need to be more rain before significant aquifer recharge can begin, meaning a reduced window for aquifer recharge and a different set of risks. The methods which we are required to use when assessing climate change impacts are outlined in the Water Resources Planning Guideline supplementary guidance.</p> <p>Regarding the options considered in our plan, we have considered a range of solutions, including new groundwater sources. We have assessed the impact of climate change on options' potential benefits when building our plan, and so do not consider that we have ignored the impacts of climate change when comparing options.</p>	We have not made changes to our plan as a result of this response for the reasons set out in our consideration
978	Plans for leakage reduction, and demand reduction are not adequately dealt with and WRSE should be meeting sector averages in these areas. The reservoir should not even be considered until Leakage Reduction has been drastically improved.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24</p>	



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		<p>hours a day. Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel. In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	
978	<p>I am opposing Thames Water's draft Water Resources Management Plan (dWRMP24) in the strongest possible terms as it is not fit for purpose and is not adaptive or transparent. In particular the SouthEast Strategic Reservoir Option is of major concern. The plan claims it will increase protection of the environment by taking an adaptive planning approach. Plans for better water recycling, wastewater treatment and desalination are not adequately dealt with and WRSE should be meeting sector averages in all these areas.</p> <p>To adapt over time, water transfers are much more flexible. The need for transfer has been known for many years but nothing has been done. Bringing water from</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>areas with more rainfall brings new sources of water to the SouthEast and the plan to start the SevernThames transfer should be starting before 2030. The Grand Union Canal phase 2 water transfer could then be brought forward if needed. These schemes can be on stream much sooner than a new reservoir and at a much lower cost both financially and environmentally.</p> <p>It is necessary to start the water transfer schemes as soon as possible. This along with better water recycling and desalination would remove the need for any reservoir of any size. Currently there have not been adequate studies of flood risks, environmental impact or security issues around the reservoir. The majority of local residents are not interested in leisure facilities surrounding the reservoir. It is far more important to maintain the biodiversity of the area which would never recover from 10 years of destruction. Disruption for local residents would be unbearable when considering dust pollution, carbon emissions and road disruption to name only three. Increased flood risk and blight of our houses are also very major concerns.</p> <p>There are so many issues needing much greater study before the reservoir is considered. It is unreasonable in the extreme to press for the reservoir when other options are cheaper, more environmentally friendly, more effective and quicker to bring on stream.</p>	<p>need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate;</p> <ul style="list-style-type: none"> • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposals have been assessed as part of the Strategic Environmental Assessment (SEA) of the draft WRMP. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. The more detailed environmental appraisal, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Therefore, the potential environmental impacts have been taken into account in weighing up the pros</p>	



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		<p>and cons of the SESRO options compared to alternatives. We have started to explore how some of the most significant impacts might be managed and mitigated when the scheme is designed, as part of our Gate 2 submission to RAPID. For example, section 3.4 of our main report to RAPID (and figure 3.1) explain some of the key landscape issues and how we have taken these into account in deriving an indicative landscape master plan for the 150 Mm³ SESRO option. We will continue to develop our thinking on these issues, in close liaison with the local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p>	
993	<p>I am contacting you to register my support for the proposed Cotswold Canals Severn Thames Transfer (CCSTT) Scheme, details of which can be found on the CCT Website.</p> <p>This scheme would seem to have great benefits to the countryside and the South East, and has great advantages over the competing schemes. I firmly believe that this is both the most sensible, and also costeffective solution to transferring water to the South East in the future.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm³ in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1010	<p>I also believe the proposed reservoir could have been avoidable by long overdue attention to leakage in the water supply.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
1010	<p>In the 1990s I recorded many plants in the area of the reservoir proposed at that time. As a Parish Councillor in Drayton (19952003) I did a comprehensive survey of Drayton's hedges, recording the woody species in 30 m sections. The flora is not outstanding but has much of the variety to be expected in green, largely undeveloped countryside, especially in woodland (Drayton Copse), wetland (ditches, streams, the old canal) and meadows. The area has historical interest and I led parish walks there. The loss of 4 square miles, a bigger area than what I opposed in the 1990s because of its size, would irreversibly destroy a great deal of biodiversity.</p> <p>Around 1970 I wrote for the Natural Environment Research Council a report</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>"Research in Freshwater Biology." An important topic was eutrophication which at the times was troublesome in Farmoor reservoir which is near by and, like the proposed new reservoir, fed from the Thames. The Water Resources Board proposed to solve water shortages, notably in S. England, by water transfers between catchments. The idea impressed me and I was disappointed that it hadn't happened. But I now welcome news that Anglian Water is importing water from the Humber. I welcome the longstanding idea of transferring water from the Severn where there is a bigger and more reliable supply than from the Thames which drains a drier catchment. I understand that this transfer is much cheaper than the proposed new reservoir, could be achieved earlier, and is less environmentally damaging.</p> <p>The proposed reservoir would also be a disaster for our area. The proposed bund would dwarf the nearby houses and any failure could create floods downstream. (It could be a tempting target in a war, not so farfetched, listening to Vladimir Putin).</p> <p>It would cost a tenfigure sum of money and take 12 years to build; perhaps more if it emulates HS2. Its customers would have to pay for it and the benefits would mostly go to somebody else.</p> <p>I am deeply concerned at the climate emergency, and the quantities of materials and vehicles to transport and manipulate them imply a huge carbon footprint. If the reservoir has recreational use it would imply even more construction, cars and tarmac.</p> <p>My sincere request is that water is transferred from another catchment.</p>	<p>country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate;</p> <ul style="list-style-type: none"> • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J. We do include for other water transfers with neighbouring water companies in our plan.</p> <p>The environmental impacts of the proposals have been assessed as part of the Strategic Environmental Assessment (SEA) of the draft WRMP. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. The more detailed environmental appraisal, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Therefore, the potential environmental impacts have been taken into account in weighing up the pros</p>	



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1015	<p>I am writing to respond to your consultation about the water resources for the south east, in particular to urge you to select the Costwold Canal as your preferred solution for supplying water to the London area. I live near Stroud and have enjoyed the recent restoration of the canal. We have parts of the canal back in water with improved access and pathways with more to come in the next 2 years. Canal restoration has improved the environment and diversified wildlife and habitats.</p> <p>As I understand it Canal transfer is proposed as a possible option to move Severn catchment water to supply London. Firstly piping water to Sapperton tunnel, then by pipeline through the existing tunnel at Sapperton, and then by open canal to the Thames at Lechlade.</p> <p>I hope you will look on this canal transfer as a viable and desirable option. Even if it were to cost slightly more than a total pipeline, this option would deliver so much more public benefit than an underground pipeline. I feel wider public benefit should be part of the decision in selecting preferred solutions for large infrastructure projects.</p> <p>A restored canal passing through beautiful countryside must be a benefit worth considering. So many people could enjoy the access it would bring be they walkers, boaters or cyclists. Further it seems to me it comes with other benefits.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm³ in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>It could be developed in the same timeframe as the proposed Abingdon reservoir (even assuming the reservoir is not delayed by local objections) and any water holding lakes for the canal (such as disused gravel pits) could provide a few days of emergency water if ever there was a failure at the Severn</p> <p>I hence hope you will continue to seriously consider the Cotswold Canal water transfer and ultimately to select it as your preferred initial option.</p>	<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1020	<p>As you are aware, the Cotswold Canals Trust to which I am a contributor, has been advocating the Cotswold Canals Severn Thames transfer using a revitalised canal as a conduit for the water transfer.</p> <p>Furthermore, I understand that the option of building a huge reservoir near Abingdon (for which there is substantial local opposition) has a longer lead time -it is likely to be 2040 until it is brought into commission.</p> <p>In any case public opinion these days would look to more of a Best Value Plan. - This would certainly be the case using the canal transfer scheme for part. -The full transfer of water by pipeline offers virtually no additional Natural Capital benefit and may well cause more disturbance of agricultural land and local communities along its path.</p> <p>The use of the Cotswold Canals to transfer water seems to me to be a winwin option, providing the water to the S.E. sooner as well as providing an environmental and social capital gain by way of restoring an amenity which has been calculated to provide substantial financial value to local society and economy.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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1020	<p>I am aware of the consultation taking place in respect of the need to supply extra water to the South East. Whilst I understand that the WRSE view is that the cost of the use of the Cotswold Canals transfer scheme is more costly, I do not see any detailed information to justify this statement.</p> <p>All in all I am disappointed to hear that the strong support in previous consultations for the Cotswold Canals scheme does not seem to be influencing the plans. I recommend that strong consideration be given to the Cotswold Canals proposal.</p>	We note your support for the use of the restored Cotswold Canals, in combination with new pipeline, as the conduit for the water transfer from the River Severn to the River Thames. We have undertaken an options appraisal study to assess a range of potential options to transfer the water from the River Severn catchment to the River Thames, and engaged with the Cotswold Canals Trust and supporters, as part of the appraisal. The work concluded that a new pipeline is the best value option. This is presented in our STT Strategic Resource Option Gate 2 report (www.thameswater.co.uk/SRO). There will be consultation on the pipeline and route corridor option before any final decisions are made.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
1044	<p>The Cotswold Canal exists and is a viable and best value option for the transfer of water to the river Thames.</p> <p>Selecting the pipeline option for the SevernThames Transfer lacks the environmental and social capital ambition that the canal offers. (WRSE & TW dWRMP)</p> <p>Given the imminent shortage of water supplies and ongoing uncertainties in demand reduction, climate change etc., it makes no sense to build the long lead time SESRO first and the shorter lead time STT scheme after it. The CCSTT scheme should be delivered as soon as possible to reduce risk and potentially bring forward environmental abstraction reductions. (WRSE & TW dWRMP)</p> <p>The response to the emerging WRSE Best Value plan demonstrated very strong support for the Cotswold Canals transfer scheme. There is no detailed information to justify the statement “The use of the Cotswold Canals as part of the Severn Thames Transfer rather than a new pipeline, has been explored but is a more costly option” (page 28 of the draft WRSE Best Value Plan). (WRSE)</p> <p>The “Best Value” aspiration of the WRSE Plan is not met by using a long pipeline instead of -using the restored Cotswold Canals. A buried pipeline offers virtually no additional Natural Capital benefit. (WRSE)</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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1044	<p>Cotswold Canal trust is the best value option The Severn to Thames Transfer (STT) . I consider it is the best value option economically and environmentally, and increases the overall benefit to the customers.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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1050	<p>I refer to the latest draft plan published in respect of water transfer from the River Severn. I would be grateful if you would take the following observations into account.</p> <p>When the Thames and Severn canal was constructed in the eighteenth century the owners could not have foreseen the possible use of the canal as a conduit for the transfer of water between these two great rivers. With today's technology a golden opportunity now exists to utilise the canal for this purpose.</p> <p>I understand that the Deerhurst pipeline is, from the design point of view fairly straightforward. However, once a scheme for the Cotswold Canals Thames and Severn option has been developed the technical design could be easily handled and details standardised. This is not a new idea it has been successfully employed elsewhere in the country.</p> <p>The Deerhurst pipeline offers none of the 'Best Value' that the Thames and Severn route would provide. There would be so many collateral benefits which would seem to fit in very well with the Governments Environment Plan. Natural corridors and habitat for wildlife as well as conserving the natural beauty of our landscape. This together with the wider social benefits that such a scheme would bring are immeasurable, and are desirable sooner than the projected timescales for the pipeline and Abingdon reservoir.</p> <p>The use of the canal for walking, cycling, boating and other wider social benefits would provide huge economic benefits to the areas through which it passes. This has been proved many times where canals have been restored. It seems that the financial benefits have been greatly underestimated in the WRMP19 plan.</p> <p>Once built the canal route from the summit will be in a single ownership. The supply pipeline to the summit will be far shorter than the Deerhurst pipeline. Given the possibility of water shortage in the south east in the imminent future, the canal would provide a much faster lead time to completion. This in itself would also save on costs.</p> <p>The Cotswold Canals Thames and Severn Canal is the best way forward. It</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>would offer so many additional benefits to a simple pipeline and should be progressed as the preferred option in the upcoming WRMP24.</p>		
1051	<p>I propose that Thames Water should have as their first major project to secure water supply for the twenty first century using the Thames & Severn canal stretching from Lechlade through the Sapperton Tunnel and the Stroudwater Navigation to the River Severn. -</p> <p>This solution for the water shortage problem has the support of the people of Gloucestershire. -Hundreds of people are involved in the project to restore the canal and hundreds of thousands of volunteer hours have been worked. Since the canal has been reinstated around Stroud, targets in private sector investment, new business start ups, job creation, workspace capacity and new housing have all been exceeded. -Environmentally a new wild life corridor is being created with it's wide range of habitats including open water, channel edge reedbeds and bankside vegetation, spring and summer wildflowers, and adjoining woodlands, shrubs and hedgerow. We have seen the return of species such as otters.</p> <p>Building a large reservoir at Abingdon does not have the support of the people of Oxfordshire. I support the view of Councillor Pete Sudbury, Oxfordshire County Council's Cabinet Member for Climate Change and Environment, who said: -</p> <p>"We have consistently opposed this reservoir proposal, which we believe could turn out to be a damaging white elephant that will not be resilient to the kind of multiyear droughts we are seeing in many parts of the world. It will arrive too late – climate change is worsening rapidly, and this scheme takes 20 years before it does anything. Putting more than a billion pounds into this project will delay quicker and more reliable schemes, including recycling and transfers from less waterstressed regions, which provide the early, powerful climate resilience we believe is urgently needed."</p> <p>Also building a massive reservoir in Oxfordshire will lead to major environmental costs in the building of the reservoir, loss of high quality agricultural land and the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>loss of habitat as well as being a problem for the local residents. - I suspect the well organised opposition will inevitably delay the completion of the reservoir well beyond the planned start date.</p> <p>Given that climate change will reduce available water supplies it makes no sense to build the longer lead time SESRO first and the shorter lead time STT scheme after it. The probable reduction in rainfall will mean that the reservoir will need water delivered via the STT scheme to keep it filled. Therefore, building the reservoir first would be too high risk for the medium term security of the water supply to the South East.</p> <p>I note that the River Severn is the river with the most voluminous flow of water by far in all of England and Wales, with an average flow rate of 107 m³/s (3,800 cu ft/s) at Apperley, Gloucestershire. In contrast, the River Thames has an average flow rate of 65.8 m³/s (2,320 cu ft/s). Also that 'Running through some of the drier parts of mainland Britain and heavily abstracted for drinking water, the Thames' discharge is low considering its length and breadth: the Severn has a discharge almost twice as large on average.' Relying on water from the Severn would seem to be a better bet.</p> <p>I can only assume the tangible costs to Thames Water of the canal scheme must exceed those of building the reservoir. This is probably why Thames Water is going against both the residents of Oxfordshire who have organised to opposed to the Abingdon reservoir, see https://www.abingdonreservoir.org.uk/ and the residents of Gloucestershire who have organised to support the Severn to Thames Transfer (STT) Water transfer see https://cotswoldcanals.org/wxfer/ -</p> <p>The challenge is that only the environmental requirements explicitly required by law are being taken into account. The wider benefits to both the environment and the population generally of the option of transferring water from the River Severn to the River Thames via the canal are being ignored. -</p>		



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1051	<p>A demand management suggestion for reducing demand.</p> <p>Introduce variable pricing. I would suggest the first x litres would be free and then the customer would pay a standard rate for the next y litres and then pay a much higher rate for water over z amount.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
1052	<p>the underlying assumptions of the plan are challengeable and undermine credibility. For example, official forecasts suggest that the UK population will stop growing – and may start to fall – within the next 10 15 years, but the plan assumes a continuing growth in overall population.</p>	<p>We are only aware of low variant scenarios of future population growth that suggests the population will stop growing with even the most recent ONS National Population Projection continuing to show growth across the planning horizon. Growth forecasts used were produced by either local authorities or the ONS. Given this we are comfortable that the multiple scenarios of growth we have included within our plan are robust.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
1052	<p>the impact of climate change is assumed to reduce water available for use, but experience has already shown that there will be more, not less, water available at some times of the year. The focus needs to be on methods of adapting this changing pattern of available rainfall through modification of existing infrastructure rather than simply assuming a new reservoir will be required</p>	<p>It is not the case that our WRMP has made an assumption that climate change will reduce water availability, instead it is the case that we have conducted a lot of modelling (detailed in Section 4 and Appendix U of our WRMP) to properly assess the complex range of impacts that climate change may cause. While it is true that the pervading climate change narrative is that the future will bring "warmer, wetter winters and hotter, drier summers", this does not necessarily imply an increase in our supply capability as there is a large degree of uncertainty and hydrological complexity involved in determining resultant impacts. The most likely outcome highlighted by modelling that we have undertaken is that our supplies will be negatively impacted by the impacts of climate change.</p>	<p>We have not made changes to our plan as a result of this response for the reasons set out in our consideration</p>



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		<p>The methods which we are required to use when assessing climate change impacts are outlined in the Water Resources Planning Guideline supplementary guidance and we have adopted these methods.</p>	
1052	<p>the demand management measures incorporated into the plan are not sufficiently stretching and need to be rejected. The plan explicitly rejects the Government's target for reductions in per capita usage and commits only to a 50% reduction in leakage by 2050. Given the existing high levels of leakage in the Thames supply area, a 50% reduction would still leave the company well behind industry leading standards, which ought to be the minimum threshold before consideration can be given to a major, environmentally damaging new reservoir. It is simply unacceptable for a company to ignore Government targets for reductions in demand – Government policies are only properly challenged through the ballot box, not by the choice of private entities.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	



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1052	<p>As a resident of a village adjacent to the proposed new storage reservoir for the south east, I am writing to oppose the proposed development on the grounds that the case does not meet the criteria for acceptance. -</p> <p>the plan is not adaptive as it requires a commitment to a single major reservoir development at an early stage, cutting off any opportunity to adapt the plan as new data emerges and trends develop. An adaptive approach requires the opportunity to amend plans according to the most up to date evidence, but a capital commitment of the size of the proposed reservoir is not capable of such adaptation without involving the waste of resources involved in stopping development and returning the environment to its preexisting condition the cost and carbon impact of the reservoir are much greater than suggested. To base the claim that the reservoir will have a lower carbon impact than regional transfers on only the operating costs of the reservoir is disingenuous in the extreme. The construction phase will have a huge carbon impact (as well as the cost to customers) and will be incurred whether or not the reservoir is used as forecast. Alternative options have a much lower upfront cost and carbon impact and have the advantage of only incurring both as they are deployed. the -environmental impact has not been adequately considered. The plan relies upon the reservoir being able to supply additional water resources in times of drought – but it needs to be filled to be able to do that. In 2022 the Upper Thames catchment was unable to meet the existing demand without the use of environmentally damaging drought permits, but the need to fill a reservoir the size of the one now proposed will simply extend the duration and scope of environmentally damaging abstractions in the Upper Thames catchment. Moreover, the impact of the reservoir itself on the local environment – and in particular the Thames Valley flood plain upon which is to be constructed – has not been sufficiently modelled or considered.</p> <p>the resource transfer options are underdeveloped and brought in too late compared to the proposed new reservoir. The details of resource transfer schemes set out in the consultation are sketchy compared to the designed plan for the reservoir, indicating that insufficient attention has been paid to their development. This is contrary to the adaptive requirement for the plan as resource transfer schemes can be deployed relatively quickly when needed and</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>Comment on SESRO specific elements below:</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>do not require a major, potentially abortive up front investment.</p> <p>The plan for a new reservoir should therefore be rejected for a third time and alternative proposals be developed. I urge the company, regulators, Government, and elected officials to reconsider and bring forward proposals that better meet a realistic view of the need and conform with the requirement for a plan that is truly adaptive.</p>	<p>The environmental impacts of the proposals have been assessed as part of the Strategic Environmental Assessment (SEA) of the draft WRMP. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. The more detailed environmental appraisal, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Therefore, the potential environmental impacts have been taken into account in weighing up the pros and cons of the SESRO options compared to alternatives. We have started to explore how some of the most significant impacts might be managed and mitigated when the scheme is designed, as part of our Gate 2 submission to RAPID. For example, section 3.4 of our main report to RAPID (and figure 3.1) explain some of the key landscape issues and how we have taken these into account in deriving an indicative landscape master plan for the 150 Mm3 SESRO option. We will continue to develop our thinking on these issues, in close liaison with the local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The operation of the SESRO options is conceptualised to avoid additional abstraction during periods of low flows in the River Thames catchment. The reservoir would be refilled during winter (or higher flow) periods, enabling storage of the water until drier, more water stressed periods were experienced. At this point, the water could be released either for conveyance to London via the River Thames, for piped transfer to Southern Water or for more local supplies, as required. This approach prevents the need for additional abstraction during low flow periods when the river would be more vulnerable to abstraction.</p>	

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1061	<p>Alternative sources:</p> <p>Water transfer from ‘Wet Wales’ via the River Severn and then via the Thames and Severn Canal, was too easily dismissed. The financial assessment was based on costings provided by an unwilling ‘partner’ water company, and they did not use their incremental/marginal costs. Full overhead recovery by the ‘partner’ was said to make the proposal unattractive. However, no attempt had been made to ask Ofwat to intervene and ensure that the appropriate financial numbers were provided.</p> <p>No allowance was made in these calculations for the amenity gain for canal users, or the loss of amenity by using highvalue land for the Abingdon reservoir.</p> <p>Abingdon reservoir:</p> <p>I ran a business on the Culham Science Park, and remember that this proposal was first made over 15 years ago! Why should we now assume that this element of the proposal is serious?</p> <p>Desalination:</p> <p>I’ve not seen the numbers to allow me to comment on the cost/benefit of additional desalination plants, for example one on the Severn estuary, feeding TW via the T&S canal.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
1061	<p>Sewage:</p> <p>I cannot see any numbers to show the impact of the new investments required to provide good quality water throughout the system? If TW are serious, and accept the urgent need to control sewage, this calculation should be done before building a reservoir?</p>	<p>The purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. In the draft plan we provide information on the costs and assessments of the options that we have considered - please see www.thames-wrmp.co.uk - Data tables if you would like to review data on the schemes.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>I am happy to meet you for discussing these issues, when the numbers are available.</p>	<p>In respect of wastewater and investment to maintain and improve our wastewater services, we publish a "sister" plan called the Drainage and Wastewater Management Plan (DWMP) and this sets out the challenges we face and the proposals for investment in wastewater services and infrastructure.</p>	
1061	<p>Leaks: 'Promises promises' for major improvements in leaks have never been achieved. Previous numbers indicated that this reservoir might not be needed if these other matters were addressed successfully.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
1063	<p>I write to express support for the Cotswold Canals SevernThames Transfer option and to support it's being brought forward in the proposed programme.</p> <p>Compared with a water pipeline idea or reservoir, use of the Canal seems to me to have the following advantages</p> <ol style="list-style-type: none"> 1. No extensive loss of countryside needed for a reservoir. 2. Reduced need to take ground water in the South East 3. Multi user benefits compared with single use benefits from a pipeline 4. Use of the canal as part of the water transfer scheme will enable environmental and economic and leisure benefits not available from a pipeline 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>only or reservoir scheme.</p> <p>I do not think the final decision should be based just on economic criteria relating just to the water industry. As a country, we have surely gone past that. Economic assessments should include taking into account</p> <ol style="list-style-type: none"> 1. The benefits to the visitor economy from the restored canal 2. The increase in amenity value 3. The effect on construction employment. 4. The benefits for the national from improved physical and mental well being 	<p>WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1065	<p>I write to support the use of the Cotswold Canals to help transfer water from the Severn to the Thames.</p> <p>I believe that the collateral economic and environmental benefits of this route make it the best value plan available.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1074	<p>I have written objections since this reservoir was proposed, and again there are certain aspects to this proposed reservoir near Abingdon (Oxfordshire) that quite obviously stand out as issues.</p> <p>The wall construction, at the proposed height, is untried and untested. Failure in such a low lying and flat area will be catastrophic. It also smacks of an ideal way in which the cost will massively escalate, year on year, and the water user will pay. The large surface area to volume ratio will result in huge water loss through evaporation. Without doubt the better method is the transfer of water from sources further west, where rainfall is vastly greater. The record of Thames water on leakage repair is very poor, with repeated visits to the same leak (I have reported many) and remedying</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraybury all have dam heights of 12-20m and crest lengths of 4.3-</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>this would go a long way to negating the need for the proposed reservoir. As would the acceptance that we must cut our consumption per household, not continue increasing it, as we have since the 1940's. We have increased our domestic consumption in the UK since 1985 by 70%, when we should be decreasing our consumption.</p> <p>Thames Water have proposed no realistic ways to reduce consumption, not in their interest, when certain other countries do their best to reduce the need for reservoir style supplies. For example, why not demand the introduction of rain water tanks for ALL houses, new and old, that use this to flush toilets, as they do in parts of Australia. The monies would be far wiser spent on the much needed improvement of the present supply infrastructure, which is in an appalling state, thus reducing the disgraceful pollution of our waterways, where there should be none.</p> <p>As a conservation Biologist, the primary concern for me is the resulting immeasurable damage to the last area of flat, lowlying agricultural land in the upper Thames valley. There comes a time when governments and councils</p>	<p>6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the</p>	



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	<p>must call enough to the continued development of this particular area. It is suffering from massive development which has gone a long way towards completing the destruction of the area for wildlife. There is massive space, both for business and houses, further north and west within the British Isles. Incentivise business to move towards the rainfall and the houses will follow. You cannot go on developing this area without the almost total destruction of wildlife values within this area. Wildlife and habitat has continued to decline at a fast and increasing rate during my near 70 years in this area, to such an extent that many species are gone and most of the others are in terminal decline, solely because of human expansion. It cannot go on and must stop. You have a duty to the wildlife to stop this continued selfish development. We are equal to the wildlife, not superior to it.</p> <p>The weak proposals at amelioration of the losses, proposed by Thames water, are just so poor and completely irrelevant. You cannot replace what has gone and putting a small reserve together is nothing but being insincere. The reservoir will attract all sorts of birds, but that is irrelevant, as they will not be birds that the reservoir has removed, agricultural and woodland</p>	<p>expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	



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	<p>birds, they will be largely gulls (roosting and leaving during the day as they do at Farmoor) and few general waterbirds. Suggesting that the reservoir will provide recreation is just as insincere and an insult to the wildlife that will be destroyed by this development.</p> <p>The reservoir holds no benefits and will only bring the near destruction of the wildlife within the area. Expansion of this area must be stopped; a stand must be made. I object most strongly to the proposal. Thames Waters continuation of this proposal is simply an attempt to win by fatigue, but, that will fail as the proposal is inherently flawed.</p>		
1076	<p>I would like to express my support for the Cotswold Canals SevernThames Transfer option and ask that you bring it forward in the proposed programme.</p> <p>As the win, win option benefiting the leisure boating industry – together with all those who enjoy their recreation beside or upon water – alongside providing a viable water transfer mechanism, there is very little not to like.</p> <p>As the best value scheme it clearly meets all the criteria and as such sits head and shoulders above a piped solution which, by limiting itself solely to moving water from west to east through an enclosed pipe, denies the public a wide range of wellbeing benefits.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits;</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1081	Road accidents could increase due to local climate change.	Thank you for your comment - road accidents are beyond the remit of the Water Resources Management Plan and are beyond the remit of water companies. Concerns around the impact of climate change on road accidents should be directed towards your local council.	We have not made changes to our plan as a result of this response for the reasons set out in our consideration
1081	<p>I strongly object to the proposal for the Abingdon Reservoir: During construction, the surrounding watercourses will be substantially disturbed and polluted and may never recover. Rainfall will enter the proposed reservoir and not the local watercourses adversely affecting plant and wildlife. There is not adequate floodplain identified to compensate for the proposed reservoir. Flood risk will increase for surrounding villages. Important agricultural land will be lost forever, more significant now due to the war in Ukraine. The microclimate will change forever, including more fog and frost plus thousands of midges attracted by this 4.7 square miles reservoir. The visual impact will be detrimental to the area, the enormous size of the structure is quite frightening, the inner embankments when the proposed reservoir is not full will look ugly, the extra ancillary structures on the site and the very, very steep 25 metre/80 feet high embankments surrounding the proposed reservoir. All of these are not acceptable in this location.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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	<p>-These extremely high embankments have not been tested, new construction methods will need to be used due to this being the largest type of reservoir ever attempted in Europe. If these embankments fail for any reason 150 million tons of water will flood everything and everyone in its path.</p> <p>The effect of the significant weight of the reservoir on the land is unknown but any movement could be devastating to the surrounding villages.</p> <p>The noise and vibration during the 10 years of construction will be unbearable, affecting the wellbeing of local people.</p> <p>The health and particularly mental health of local people will be adversely affected by the deterioration in air pollution, the increase in fog and the continual daytime noise during the years of construction.</p> <p>Birds will be attracted to the reservoir; they could cause a significant risk of bird strikes to aircraft from the Abingdon airbase which is located approximately 6 miles away.</p> <p>House prices will tumble, people who have recently moved to East Hanney have said when they did a search on the area before purchase the reservoir was not mentioned! Unbelievably house building is continuing close to the proposed embankments.</p> <p>No amount of compensation will ever cover the loss to the environment or the impact on the lives of those living close to this proposed reservoir. This proposal by Thames Water and Affinity Water is not acceptable.</p> <p>The actual size of this reservoir being proposed is so enormous it will be very detrimental to the ancient village of East Hanney plus to the other villages close by. It will change lives for ever, destroy the environment and cause great stress and depression to the local community. The residents of East Hanney chose an attractive Oxfordshire village community to live and raise their children, spend a relaxed happy retirement. They did not expect this abomination to take over their lives and destroy their village and their way of life. This is completely the wrong place to construct an enormous type of reservoir ever attempted in Europe.</p> <p>The 150 million tons of water contained in the reservoir is not even for the local area such as Oxford and Swindon but for London and available to be sold on to the highest bidder from other water companies.</p> <p>-I absolutely object to this proposal, please do not allow it to happen. There are</p>	<p>findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraybury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p>	



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	<p>better options to consider and much cheaper for example, water transfer from the Severn or Wales, reuse of water in the system, desalination, or a mix of all. May be build it in an area where there are already natural lakes or even near to London where it is required.</p>	<p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity</p>	



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		<p>including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	
1097	<p>Use the canal from The Severn to Thames head and beyond to the Thames itself.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm³ in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1117	<p>The figures produced regarding population increase are far too high and are just not credible.</p>	<p>Growth forecasts used were produced by either local authorities or the ONS. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075. Both ONS and local authority plan projections are subject to their own assurance processes with the latter being reviewed by Government planning inspectors. Given this we have confidence in the projections produced and that they are credible and appropriate to be used within our Water Resources Management Plan.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
1117	<p>It will take between 10 to 12 years to build this monstrosity at enormous cost and the fact that foreign investors will reap enormous profits and the Taxpayers of this country the losers is shocking. Not only will foreign investors benefit, but the water (once it has taken a further two years to fill), will not be for the area in which it is built but to other areas miles away in the south east of the country and Sussex.</p>	<p>Our water resources are under pressure from a changing climate, the need to protect the environment alongside accommodating future growth. Without action, we could face a substantial shortfall of one billion litres of water a day in the next 50 years. We need to plan ahead to ensure we have a secure and sustainable future water supply.</p> <p>In line with government guidance we have worked with other water companies across the South East to plan the water supply for customers over the next 50 years. The plan includes measures to make the most of the water we have through tackling leakage and reducing demand as well as developing new sources of water such as the reservoir. The reservoir, like other new water resources proposed are collaborative, shared resources and the investment is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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1117	<p>Follow the science instead of this bull headed idea of a dangerously gigantic reservoir. -The science proves that by laying a pipeline from the River Severn to the River Thames the water can be transferred without the massively outrageous costs of what would be not only a hideous blot on our doorstep but by building this megareservoir in a flood relief zone it will create a very real flood risk. -A very real risk for all the houses built so close to it and possibly in the future Insurance companies would refuse to insure.</p> <p>I am equally horrified by the proposed size and scale, seemingly reduced from 150 million tonnes of water above ground to 100 million tonnes of water, an indescribable risk if the walls were to develop a crack. -Here perhaps I should mention that Thames Water have the worst record for repairs and maintenance, 29% losses are being reported. -There would be so many homes in the immediate vicinity that would have to be evacuated as a reservoir of this size could take up to 3 weeks to drain!!!</p> <p>The destruction to our wildlife would be enormous and irreversible, already these poor animals are suffering by being forced out of their environment onto the roads and killed thanks to the amount of houses being built on every spare field and site surrounding Wantage and Grove. -Included in the environmental impact would also be the fact that the local climate would change due to the very high walls creating a microclimate.</p> <p>The roads are too small and clogged with traffic already to be able to take the amount of plant and infrastructure needed for this. -The pollution over the 12 years (4,380 days) may be a little less if only counting Monday to Friday, for the villages and surrounding area are incalculable.</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-</p>	



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		<p>6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during</p>	



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		<p>lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	
1134	<p>Water Requirement</p> <p>The requirement for new water resources has been overestimated by Thames Water (TW) by 1000ML/day. The reason for this is it fits the TW proposal for their Abingdon bunded reservoir (SESRO). The TW mechanism for this is their exaggeration of future house building from local plans. These numbers are then linear extrapolated using a long time base to give the TW predicted water requirement.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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1134	<p>Environmental Justification</p> <p>The Chiltern chalk streams are important and well used by TW in attractive photographs as reason to destroy the Hanney-Steventon flood plane with a proposed SESRO. The flood plane is also a wild life inhabited area. Environmental damage is NOT tradeable.</p>	<p>Thank you for your response, we note your concerns. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 Ml/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. The National Framework for Water Resources and Water Resource Planning Guidelines set out the approach that should be taken in defining a regional environmental destination, which is what has been included in both the WRSE draft plan and our draft plan.</p> <p>The SESRO reservoir proposal is consistently selected in investment model runs undertaken for the WRSE regional plan as a necessary and appropriate key scheme within the overall regional plan solution to the future water resources challenges that the region is facing.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
1134	<p>On top of this, TW have stated an intention to exceed the government target for individual daily water requirement. This, given the TW record for leak reduction and sewage discharge is hubris.</p> <p>Leakage and the Abingdon Bunded Reservoir</p> <p>The current reservoir proposal of 100M cubic/metres could not be completed before 2040 at the best. Experience of HS2 shows estimated completion dates should be doubled. The current TW leakage is 620 ML/day or 226M cubic metres/year or 2.2 SESRO/year. Save one SESRO/year of leakage and the reservoir requirement is eliminated. TW have neither the intention nor the motivation to do other than sick plasters on the leaks as they occur. The Camden mains burst resulted from an 80 year old iron pipe left to corrode.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target</p> <p>Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Leakage targeting, and its relationship to water supply options</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by</p>	



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		<p>2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>South East Strategic Reservoir Option (SESRO/Abingdon Reservoir) The SESRO scheme, about which you have concerns, is one part of a wider programme of resource development and demand management options. As a water storage solution, it is an important asset in the resilience against potential water shortages arising from forecast population increases and drought.</p> <p>The reservoir has the potential to offer a wide range of opportunities including creating a place that people would want to visit for their health and wellbeing, new accessible leisure and recreational facilities from walking, cycling, fishing, birdwatching and a wide range of water sports for all as well as providing opportunities to host sporting events with access to new facilities for local people. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for the local area and wider Oxfordshire.</p> <p>It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them.</p>	
1134	<p>I wish to oppose the Plan and in particular the SouthEast Strategic Reservoir Option (“SESRO”) which forms part of the Plan.</p> <p>Safety and the Abingdon Bunded Reservoir.</p>	<p>The nearest flow gauge to Culham, which is the proposed outfall location for SESRO into the River Thames, is at Sutton Courtenay. Flow statistics for this gauge may be found in the National River Flow Archive (NRFA Station Mean Flow Data for 39046 - Thames at Sutton Courtenay (ceh.ac.uk)). The Flow</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>It is a statutory requirement that the reservoir should be able to draw down a metre/day in depth for its safety case. For the 4sq Km reservoir area this requires a flow of 46 cu metres/sec into the Thames near Abingdon. The average Thames flow is 60 cu metres/sec, so ten days discharge required to half the water depth brings high risk to flooding and to life. Conversation with TW people at their presentations reveals no modelling or detailed calculation has been made. This is incompetent and gives no confidence in TW statements.</p> <p>Comparative costing with the SevernThames Transfer</p> <p>Without detailed groundwater assessment for the site, TW cannot bound the build risk and costs that will be required for any mitigation. Hence the assertion that the reservoir is the ‘best value plan’ is empty headed and guaranteed to prove false. Clearly the SevernThames transfer (STT) can be achieved quicker with costs that can be accurately predicted as there is large experience of pipe laying. The STT has the added advantage of lower environmental damage and little visibility after installation.</p> <p>Conclusion</p> <p>In the four years I have been involved in this process I have observed the arrogance of Thames Water. You do not listen because you do not wish to unless this is imposed from external agencies. The Abingdon reservoir is opposed by Oxford County Council, the Vale and South Oxfordshire district councils and all affected Parish Councils. The reservoir, as in the 2011 inquiry, is unacceptable and is unanimously opposed.</p>	<p>Duration Curve at this location shows that the flow in the River Thames at this point is at or below approximately 40 cu metres / second for 80% of the time of the gauged record (1973 – 2021). The data records that the highest flood during that data record reached a peak of just over 200 cu m / sec. A flood event with a return period of 1 in 10 years would have a peak flow of just over 66 cu m/ sec.</p> <p>The exact emergency discharge flow rate of the 100 Mm3 option is yet to be established, as the exact footprint, depth and outfall configuration is not yet designed. However, the scale of the scheme is such that the operation of the emergency discharge facility at SESRO would, effectively, add the equivalent of a winter flood event into the River Thames. The drawdown capacity for the configuration of the 100 Mm3 option that was priced into the draft WRMP has been estimated at approximately 58 cu metres / second.</p> <p>We would expect to carry out flood modelling of the effect of this discharge event, to determine the impacts on the downstream catchment, as part of any future Flood Risk Assessment for the scheme. This work will be part of any future scheme consenting and promotion. This work would not normally simulate the combination of emergency discharge with an extreme flood in the Thames, due to the extremely low combined probability of such an occurrence. As a result, we would expect the combined flooding effects of the emergency discharge with average flow conditions in the Thames to be broadly equivalent to a large winter flood event and hence not cause any additional flooding risks or risks to life.</p> <p>With regard to groundwater flood risks, for our Gate 2 submission to RAPID we did undertake modelling and assessment of the groundwater flood risks of SESRO. As noted in Section 4.28 of our main Gate 2 report, this modelling confirms that, <i>“When the planned drainage measures are simulated in the model, groundwater levels are reduced by the presence of the proposed toe drain, flood storage area and watercourse diversions and through the inclusion of the proposed groundwater drain around the embankment. When these measures are included, the increased risk of</i></p>	



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		<p><i>groundwater flooding is reduced to a low level."</i></p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our decision to promote construction of SESRO ahead of STT is based on the assessment that plans in which the STT is used in place of SESRO are more expensive, result in more carbon emissions, and do not deliver the same environmental or resilience benefits, particularly under severe future scenarios. The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
1136	<p>I write today to implore you to prioritise the Cotswold Canals SevernThames Transfer (CCSTT) over the Abingdon Reservoir/Pipeline option. When properly valued the CCSTT is hands down the better option and additionally is achievable within 12 years as opposed to 17 years for the other.</p> <p>Please consider these points:</p> <p>The CCSTT would have massive public support from those all along the canal route in stark contrast to the growing public opposition to the reservoir</p> <p>Huge social capital improvements (wellness, local economies, ecological) would be realised by CCSTT whereas virtually no social capital is achieved by a long underground pipeline. It could be argued that opposition to Abingdon achieves negative social capital.</p> <p>The use of canals for water transfer plans has already been demonstrated and well managed by Canal and River Trust (eg. Gloucester Sharpness Canal</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>

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	<p>providing water to Bristol) Cotswold Canal Trust has a demonstrated ability to partner with local agencies and government to deliver large infrastructure projects in a timely and ecologically beneficial manner whilst bringing enthusiastic public support It is concerning that despite strong support for CCSTT in prior consultations, the new plans still seem to favour high cost, high carbon solutions with no social capital ambitions. The buried pipeline option requires much more energy to pump water up over the Cotswold Hills than the much shorter and lower summit of the CCSTT. Why on earth is the long lead time SESRO considered a good option when recent years weather patterns indicate that water shortages are more likely sooner than expected. CCSTT can be online in just 12 years time whereas Abingdon is slated for 2040 at the soonest and that is assuming local opposition can be overcome Currently the social value of the restored canal is only valued at £80 million over 80 years in the draft plan. A study by the Inland Waterways Association puts the 80 year value at £780 which makes the CCSTT the best value option.</p> <p>Please consider the proper costs and benefits in your plans and you will see the logic and benefits of a canal water transfer plan. Thank you for your attention to this matter.</p>	<p>used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1159	<p>In my view, the reservoir option has a very long lead time and the well organised opposition will delay it even longer. The buried pipeline option will be very disruptive during construction and offer no environmental or Natural Capital gain once operational. The Cotswold Canal SevernThames Transfer gives the greatest benefits to society and the environment while still delivering the required extra water to the SE. The long term benefits from this solution do not appear to have been adequately considered or costed and it would be sensible to start this shorter lead time option soon to get the greatest pay back. It also will create the least public opposition to the construction phase. Please make this the preferred option.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1175	<p>A secure water supply is crucial, but you also need to stop putting sewage into our water courses.</p>	<p>Thank you for taking the time to participate in the consultation on the draft WRMP and we note your dissatisfaction with the performance of Thames Water in respect of sewage overflows. The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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1189	<p>I strongly support the CotswoldCanals SevernThames Transfer scheme, which, it seems, Thames Water does not wish to properly consider in relation to the overall requirements of any water transfer scheme.</p> <p>They appear to be ignoring the enormous environmental, ecological, local economic gains and social benefits that such a canalusing scheme would bring. Through this attitude they are ignoring the absolute requirement to consider the Best Value options. A buried pipeline would bring virtually no such benefits. Thames Water appears to be continuing to ignore the very strong support for the canalbased element of water transfer without any good reason.</p> <p>Not only that, but their overall construction programme logic appears flawed in that the canalbased solution can deliver -needed water to the SE region much quicker than the construction of a new huge (and controversial) -reservoir near Abingdon</p> <p>Thames Water should properly consider the use of the canal – on a realistic Best Value basis – as a major part of the requirement for water transfer from the Severn to the Thames</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
1196	<p>I am a member of the Cotswold Canals Trust (CCT) and having listened to and considered their reports concerning the partial restoration of the canal to support a water transfer scheme from the River Severn to the Thames I write in support of their representations to you and the use of the Canal as part of the project.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>There appear to be very clear environmental and social/mental health benefits to be earned for people by making use of the Canal, as compared to what must be minimal, if any, environmental and social/mental health benefits to be derived from buried pipelines, desalination and wastewater recycling plants.</p> <p>The Canal is a beautiful waterway to behold especially when taking into the account the area of England through which it passes. Partial restoration for the Water Transfer Project would benefit many miles of Canalside compared to looking at an industrial buildings containing various plant and machinery. I also understand that such plant is both expensive and energy hungry to operate when compared to pumping water up to the Canal Summit where it should run naturally by gravity down to the Thames.</p> <p>I gather that you are already prioritising the Abingdon reservoir over the Canal Transfer choice, almost as if you had already decided your preferred option despite evidence to the contrary being made available to support the choice of the Canal option.</p> <p>The monetised benefit value attributed to the restored canal appears to have been substantially understated by perhaps a factor of ten, based on reports prepared by the Cotswold Canals Trust and the Inland Waterways Association (IWA).</p> <p>Given that this value completely changes the supportable decision in favour of the Canal and away from the Reservoir I would have thought that much more attention needs to be given to its appropriate evaluation before reaching a final conclusion.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>An £80m positive financial benefit over 80 years implies a benefit of a £1m per year. This is unbelievably low, given the potential this Canal has for enhanced tourism and hence support to local business from visitors and boaters to the area. The CCT and IWA reports suggest nearer £10m per year on average which seems more plausible at least.</p> <p>I also must say that the reservoir option has a much longer construction period before it can even begin to be operational (2040's) compared to the Canal (2030's) and I foresee much greater objection to a massive reservoir than a Canal restoration, so pushing the projected operational date of the reservoir option even further into the future. The water shortage in the south is here and will only get worse with increasing demand, I do not think you can afford to wait those extra ten years (2040's compared to 2030's), and possibly longer with greater objections to the reservoir.</p> <p>I suggest you need to get cracking on the Canal option please!</p>		
1196	<p>There are clear environmental and social benefits to the Severn -Thames Transfer making use of the Cotswold Canals, compared to buried pipelines, desalination plants, and wastewater recycling I suggest. The Canal is a beautiful thing to behold, especially taking into account the area in the Cotswolds that it passes through. Many miles of the Canal area would benefit, compared to viewing a industrial site which desalinates water or recycles waste water. What social and environmental benefits derive from buried pipelines and industrial building sites?! Very little by comparison I would have thought. Further, such desalination and wastewater treatment plants are both expensive and energy hungry to operate, compared to pumping water up a hill. I understand the creation of the much objected to reservoir near Abingdon is being prioritised over the Canal Transfer choice and I cannot see why, given the very long lead time to even build a functional reservoir. I gather that it will not be</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>

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	<p>operational until the 2040s. I do not think you can afford to wait that long given the increasing difficulties the south of the country has with drought restrictions. I also believe that objections to the reservoir build will be much more vociferous and delaying to the project than any to restoring a historic beautiful waterway in the Cotswolds. The objections will I suspect simply continue to delay the reservoir for far longer than may be anticipated now.</p> <p>I would also question the monetised value being attributed to the restored canal. The CCT, and independently, the Inland Waterways Association, have presented information suggesting the positive financial value of the Canal option has been understated by a factor of ten over an eighty year period at £80m compared to £800m. This is key in a financial evaluation of the Canal as presenting the best value choice.</p>	<p>used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1202	<p>I totally support the Cotswold Canals Severn -Thames Transfer option to be the first stage in the strategy to increase the water supply to the South East. The reasons for making this the first stage are:</p> <ol style="list-style-type: none"> 1. -It can be implemented much more quickly than can the SESRO reservoir option, especially bearing in mind a reservoir in the proposed region has been talked about for some 40 years and will no doubt be very strongly resisted. - Also, the earliest possible implementation of improved supply makes logical sense in the light of the imminent shortage of water supplies and the ongoing uncertainties in demand reduction, climate change and leakage reduction. 2. -There is no Natural Capital benefit in a buried pipeline. -Indeed, in the burying of the pipeline and in at least the early years afterwards, there is a Natural Capital disbenefit resulting from all the damage to trees, hedges and the natural habitat and some of the healing of nature will take decades. 3. -As a consequence of .2, it behoves the constructors of any plan to increase the South East's water supply, to do so with the least Natural Capital disbenefit, in the hope they can achieve a Natural Capital benefit. 4. -The least Natural Capital disbenefit will be achieved by minimising the length of buried pipeline, which would result from utilising the Cotswold Canals on the east side of the Severn -Thames watershed and the Sapperton Tunnel. 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>5. -Utilising the eastern part of the Cotswold Canals would bring a huge Natural Benefit for recreation and consequently for people.</p> <p>6. -Routing the pipeline through the Sapperton Tunnel will reduce the height to which the water would need to be pumped compared to the route for the proposed 'all pipe' system, thereby reducing the pumping power requirements.</p> <p>7. -The financial value of the restored Cotswold Canals to society and the local economy appears to have been largely ignored. -However, the recent Inland Waterways Association's 'Waterways for Today' report puts the additional financial value of restoring the Cotswold Canals could run to about £800 million over the next 80 years, which is the basis on which cost and best value calculations are based.</p> <p>8. -I am concerned that the very strong support for the Cotswold Canals transfer option expressed in previous consultations does not appear to be being taken into account.</p>	<p>Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1208	<p>I would support the Cotswolds Canals SevenThames Transfer option. The draft plan has not given sufficient consideration to the canal transfer option.</p> <p>It is the only option that delivers significant environmental and social capital outcomes. It is both cost effective and provides “Best Value”. The draft significantly underestimates the financial value of the canal transfer option (see, for example, Waterways for Today, report by the Inland Waterways Association).</p> <p>There was very strong support for the canal transfer option in the previous consultation but that does not appear to have been taken into account in the draft plan.</p> <p>Given the imminent shortage of water, increased demand and uncertainties of climate change etc. it is unclear why the plan favours the South East Strategic Reservoir (SESRO) option which would require a much longer lead time to become operational and likely be significantly more expensive compared to the canal transfer option. The SESRO option is subject to significant local and wider opposition.</p> <p>It is unclear why the pipeline transfer option requires a buried pipeline from the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Severn (Deerhurst) all the way to the Thames at Culham. The proposed pipeline route options would require significant additional pumping to summit the Cotswolds compared to using Sapperton Tunnel on the canal. Therefore, the canal transfer option is more sustainable and provides for the possible additional water storage facilities to the east of the Cotswolds (gravel extraction etc).</p> <p>It is submitted that the canal transfer option could be delivered within a shorter time frame compared to other options. It is the only option that delivers additional environmental, social and economic outcomes. It is sustainable, cost effective and already commands significant support from a range of stakeholders.</p>	<p>(PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1216	<p>I am writing in response to strongly oppose the Thames Water South East Strategic Reservoir Option (SESRO).</p> <p>My specific concerns include:</p> <p>Flooding risk: to my family home and East Hanney, the village in which I live. Thames Water's own consultants stated there was insufficient flood compensation area within the proposed site for any reservoir above 75 million cubic metres.</p> <p>The proposed construction will prevent the natural drainage of the existing flood plain, most probably diverting flood waters into the neighbouring villages of East Hanney and Steventon. Both these communities suffered devastating floods in 2007 and 2008, and several other not so serious floods since then.</p> <p>The pressure of water in the proposed reservoir will have an impact on the ground water table, which is already very high.</p> <p>In the absence of any historic knowledge of a construction similar to the one proposed, there are no assurances about potential seepage or more catastrophic a crack in the reservoir walls.</p> <p>The Construction Process: will be very lengthy. Construction traffic will put severe pressure on the local road network which is already exceedingly busy and road surfaces are not in a good state of repair due to damage by heavy lorries.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>The noise and dust during construction will have a very negative impact on our quality of life, living so close to the building site. House property values are likely to drop. The energy consumption of all the construction vehicles will be very significant and not in keeping with government targets for reduction in carbon emissions. Whilst not an area of great natural beauty, the proposed reservoir will be to the detriment of wildlife. Direct loss of habitat and disruption of wildlife corridors will occur, particularly during construction, and the finished reservoir will cause permanent and irreversible harm to the local countryside.</p>	<p>including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally: - Over 1,950 earth embankment dams impounding a reservoir volume of at</p>	



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		<p>least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km</p> <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide</p>	



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		range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.	
1226	<p>I strongly support the Cotswold Canals Severn -Thames Transfer Option.</p> <p>My reasons are :</p> <p>A buried pipeline offers virtually no additional Natural Capital benefit and does not give “Best Value” when compared with a restored Cotswold Canals option. Selecting the pipeline option for the SevernThames Transfer lacks the environmental and social capital ambition that the canal offers.</p> <p>Responses in favour of restoring the Cotswold Canals in previous consultations seemed to have been ignored.</p> <p>A buried pipeline will have little or nothing to offer by way of environmental or Natural Capital gain compared with using the canal.</p> <p>There has been no published analysis of financial value of the restored canal to society and the local economy. The social and health of the population benefits of restoring the Cotswold Canals will be huge.</p> <p>The Cotswold Canals Severn – Thames Transfer should be built first as it will be much quicker to complete than a reservoir.</p> <p>The environmental gains of the canal can be used to mitigate other schemes to transfer water to the south east/</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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1241	<p>I have studied the Thames Water draft Water Resources Management Plan and consider that the Cotswold Canals Severn Thames water transfer plan is preferable to your proposals. -My reasons are:</p> <p>1.The Environmental and Biodiversity benefits, which have been under monetised, are considerably and visually far greater. It has been well established that the mental health benefits derived from time spent by restored waterways is considerable. The restored canal will benefit -and attract walkers , fishermen, boaters and cyclists as well as wildlife over a wide catchment area. This is why the canal restoration solution is so popular</p> <p>2.The canal scheme -in conjunction with chaper -supporting reservoirs in the Costwold Water Park and Cerney Wick areas to be incorporated will provide a better -buffer in the event of high or very low rainfall than the propped Abingdon Reservoir.</p> <p>3. The canal route solution to the pressing water transfer requirement -will be available in a considerably shorter time and avoid the construction of the controversial Abingdon Reservoir.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
1247	<p>I respectfully suggest that rather than spending money on Abingdon Reservoir that a better PRIMARY measure would be to replace the defective supply pipes which result in 20% of all water not reaching its intended target due to leakage !</p> <p>If you do not do this then 20% of 'reserved' water will be lost ? Gert your priorities right !</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our</p>	



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		<p>network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
1248	<p>Safety – Dam safety – reservoir of this type has never been built at this size</p> <p>Terrorist attack, Ideal target. Water flooding down the Thames and London would be affected.</p> <p>Emergency drain down – resultant increase in flow down Thames</p> <p>Basically chances of us being flooded</p>	<p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The nearest flow gauge to Culham, which is the proposed outfall location for SESRO into the River Thames, is at Sutton Courtenay. Flow statistics for this gauge may be found in the National River Flow Archive (NRFA Station Mean Flow Data for 39046 - Thames at Sutton Courtenay (ceh.ac.uk)). The Flow Duration Curve at this location shows that the flow in the River Thames at this point is at or below approximately 40 cu metres / second for 80% of the time of the gauged record (1973 – 2021). The data records that the highest flood during that data record reached a peak of just over 200 cu m / sec. A flood event with a return period of 1 in 10 years would have a peak flow of just over 66 cu m/ sec.</p> <p>The exact emergency discharge flow rate of the 100 Mm³ option is yet to be established, as the exact footprint, depth and outfall configuration is not yet designed. However, the scale of the scheme is such that the operation of the emergency discharge facility at SESRO would, effectively, add the equivalent of a winter flood event into the River Thames. The drawdown capacity for the configuration of the 100 Mm³ option that was priced into the draft WRMP has been estimated at approximately 58 cu metres / second.</p> <p>We would expect to carry out flood modelling of the effect of this discharge</p>	



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		<p>event, to determine the impacts on the downstream catchment, as part of any future Flood Risk Assessment for the scheme. This work will be part of any future scheme consenting and promotion. This work would not normally simulate the combination of emergency discharge with an extreme flood in the Thames, due to the extremely low combined probability of such an occurrence. As a result, we would expect the combined flooding effects of the emergency discharge with average flow conditions in the Thames to be broadly equivalent to a large winter flood event and hence not cause any additional flooding risks or risks to life.</p>	
1278	<p>I am writing to voice my support for Thames Water to fully and adequately consider the Cotswold Canals Trusts' proposals to use the Stroudwater and Thames & Severn Canals as a viable option for Water Transfer between the rivers Severn and Thames (CCSTT).</p> <p>The Cotswold Canals Trust (CCT), of which I am a Lifetime member, is pressing for the canal system that once linked the River Severn to the Thames to be restored with a new dual use to supply London and the South East with additional water to address the needs identified in the current draft Thames Water Resource Management Plan.</p> <p>Best Value:</p> <p>Our proposal, could see up to 300 million litres of water per day being transferred from the River Severn to the River Thames via the canal. The scheme has huge advantages over more traditional solutions like reservoirs and pipelines. With a restored canal, there is no loss of countryside (as with a reservoir) and less need to keep taking water from the ground in the South East. The Trust believes the Cotswold Canals Severn Thames Transfer (CCSTT) is also the best value option -one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.</p> <p>Cost effective:</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Restoring a currently disused canal which has lost much of its former biodiversity value, would also provide much needed additional water over much of the length of the Thames in times when it might otherwise be struggling, in addition to cost effectively providing the water needed to sustain London and the southeast, must surely be a most worthy solution. The current public consultation procedure offers an opportunity for the Cotswold Canals Severn Thames Transfer option to be reconsidered properly. It holds open the opportunity to embrace a more cost effective strategy that carries with it both financial benefits for the consumers of Thames Water and environmental and recreational benefits to a wider population.</p> <p>Added Financial Value:</p> <p>A big omission in the Draft Plan when comparing the canal vs pipeline is the presentation of a well considered analysis of the financial value of the restored canal to society and the local economy. This seems to have been largely ignored but, on the basis of the recent IWA Waterways for Today Report, the additional financial value restoring the canal could run to about £800million over the next 80 years (the basis on which the costs and best value calculations are based). That additional benefit more than offsets the difference in cost between the pipeline and canal options. It also justifies pressing for the full restoration of the canal rather than the minimum necessary to enable the transfer of water alone.</p> <p>It is rather obvious that a buried pipeline has little or nothing to offer by way of environmental or Natural Capital gain compared with using the canal. The same goes for water reuse plants and many of the other forms of water resource development. In this respect restoring the Cotswold Canals could act as mitigation or biodiversity offsetting for other water resource schemes.</p> <p>· Given the imminent shortage of water supplies and ongoing uncertainties in demand reduction, climate change etc., it makes no sense to build the long lead</p>	<p>levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>time SESRO first and the shorter lead time STT scheme after it. The CCSTT scheme should be delivered as soon as possible to reduce risk and potentially bring forward environmental abstraction reductions.</p> <ul style="list-style-type: none"> · Selecting the pipeline option for the SevernThames Transfer lacks the environmental and social capital ambition that the canal offers. Myself and many members of the Cotswold Canals Trust have deep concern that the very strong support in previous consultations for the Cotswold Canals transfer option does not seem to be influencing these plans. <p>I repeat that I would urge Thames Water and the Secretary of State to fully and adequately consider the Cotswold Canals Trusts' proposals to use the Stroudwater and Thames & Severn Canals as a viable option for water transfer between the rivers Severn and Thames to meet the water needs of the South East.</p>		
1293	<p>I write in response to the consultation on the Thames Water draft Water Management Plan, to support the proposal for the Cotswold Canals SevernThames Transfer Scheme.</p> <p>This proposal has the potential to transfer up to 300 million litres of water per day from the River Severn to the River Thames. This option has very substantial advantages over other solutions such as reservoirs or pipelines. Using the restored canal would not require the loss of countryside, and there would be less need to keep taking water from the ground in the South East.</p> <p>In addition to these benefits the SevernThames Transfer is also the best value option. Best value is not simply a question of economic cost but also the economic, environmental and societal benefits that have been proven to result from a navigable canal (see 'Waterways & Wellbeing: Valuing Our Waterways - Aggregate Benefits to Society and the Economy', Canal & River Trust, November 2022).</p> <p>I strongly support this proposal being taken forward as part of your plan.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1300	<p>I completely support the Cotswold Canal Trust -proposal, that could see up to 300 million litres of water per day being transferred from the River Severn to the River Thames via the canal.</p> <p>I agree with the -that the scheme has huge advantages over more traditional solutions like reservoirs and pipelines. With a restored canal, there is no loss of countryside and less need to keep taking water from the ground in the South East. It is the most promising way of restoring the whole 36 miles of the Thames – Severn link.</p> <p>I enthusiastically agree and support the Trust in its belief that the Severn Thames Transfer is also the best value option -one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1319	<p>Your first priority should be to fix the appallingly high rate of water leakage in the Thames valley area.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
1319	<p>We are writing to you to express our very strong opposition to the still proposed reservoir in the Abingdon area. It is a grossly inappropriate giant development which is not necessary and will not provide any of the notional claimed leisure benefits.</p> <p>The alternative proposal to transfer water from the Severn will adequately satisfy future water needs, which have been based on a substantially over estimated population growth, at a lower cost and with far less huge disruption of the environment and far more in keeping with the need to counter the effects of climate change.</p> <p>We live in an area close to the proposed southern boundary of the reservoir which would be substantially at a catastrophic risk if there were ever a break in the huge surrounding boundary mound of the reservoir. We would also be</p>	<p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised."</p> <p>This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>seriously affected by the enormously disruptive effect of the construction activities associated with the building of the reservoir over many years.</p>	<p>cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams</p>	



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		<p>around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North 	



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		<p>West</p> <ul style="list-style-type: none"> The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they’d prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
1426	<p>I should like to respond to the abovementioned by supporting the Cotswold Canals SevernThames Transfer option as it would appear to provide so many environmental and social benefits over the other possible options. The turn around time would be achieved so much sooner than a reservoir the latter which has already raised a great deal of controversy.</p> <p>May I conclude by strongly supporting the SevernThames Water Transfer scheme as representing best value over the other options.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1426	<p>I believe that the full monetized value of up to £700 million over a period of time has been under estimated.</p>	<p>Thank you for your comment. We have followed standard industry methodologies for costing schemes and published the data to enable it to be scrutinised. Ofwat, the economic regulator, has challenges some cost estimates and we will address points raised. We will continue to publish information in an open and transparent way.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
1434	<p>I have given the consultation document some considerable thought and, having considered the suggested options for transferring water from the Severn to the Thames, I believe the best value option is use the existing Thames -& Severn Canal. This not only provides a safe and less disruptive solution but also creates considerable economic -benefit to the surrounding communities – employment, leisure activities etc. I believe your calculation of the economic benefits is flawed when compared with other studies and this needs to be revisited urgently.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1441	I enclose my submission supporting the Cotswold Canals SevernThames Transfer scheme	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		<p>levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1442	<p>I would like to register my support for the Cotswold Canals Severn Thames Transfer (CCSTT) Scheme. This proposal, could see up to 300 million litres of water per day being transferred from the River Severn to the River Thames via the canal. -The scheme has huge advantages over more traditional solutions like reservoirs and pipelines. With a restored canal, there is no loss of countryside and less need to keep taking water from the ground in the South East. It is the most promising way of restoring the whole 36 miles of the Thames – Severn link.</p> <p>The Trust believes the Severn Thames Transfer is also the best value option - one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
1445	<p>In practice cost is also a key issue and I don't believe anywhere near enough weight has been given to the environmental benefits of the canal being restored, either through recreation or wildlife and habitat gains. I have lived alongside the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full</p>



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	<p>canal in Stroud and witnessed first hand from my front room the transformation in usage and pride in the area the restoration has brought. A buried pipe can't possibly achieve anything at all in this area.</p>	<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
1451	<p>I am responding to this Consultation and would like to express concern that the proposal to use the canal system as a means of water transfer from West to East has been omitted for the following reasons:</p> <p>1. There are substantial societal benefits from canal rejuvenation schemes, as have been demonstrated by many such projects and these appear to have been under estimated in the evaluation. Conversely a pipeline not only does not provide any such benefits but has a negative impact due to the sterilisation of the land above it for many purposes.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>2. The difficulty and costs in obtaining the required permissions for a pipeline appear to have been under estimated as compared to an existing canal system, which requires few additional permissions.</p> <p>3. The time required to deliver a scheme would be far lower for the canal option compared to the pipeline and this therefore would be the lowest risk option, a very important consideration should there be an error in the estimation of water demand. The impact on society of the South East running short of water would be very high and the reputation of the water industry would be severely diminished. It would be helpful if an estimation of the cost of a very limited water supply were to be made so this could be compared to the supposed savings of a pipeline scheme.</p> <p>4 The Abingdon Reservoir option has been under consideration for some 40 years and the opposition to it is considerable and unlikely to diminish. It is therefore debatable whether it is viable solution for the near future, the canal option is far more likely to be deliverable quickly. -</p> <p>5. The strong public support for the canal scheme has been given little credence in the Plan with little explanation why this is so. This strong support is not surprising as the canal delivers much public benefit, such as leisure activities, increased biodiversity and general economic expansion from canalside facilities. -The value of public support should not be underestimated, especially at a time when water companies are coming under increasing public scrutiny.</p>	<p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1451	<p>I am responding to this Consultation and would like to express concern that the proposal to use the canal system as a means of water transfer from West to East has been omitted for the following reasons:</p> <p>1. There are substantial societal benefits from canal rejuvenation schemes, as have been demonstrated by many such projects and these appear to have been under estimated in the evaluation. Conversely a pipeline not only does not</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>provide any such benefits but has a negative impact due to the sterilisation of the land above it for many purposes.</p> <p>2. The difficulty and costs in obtaining the required permissions for a pipeline appear to have been under estimated as compared to an existing canal system, which requires few additional permissions.</p> <p>3. The time required to deliver a scheme would be far lower for the canal option compared to the pipeline and this therefore would be the lowest risk option, a very important consideration should there be an error in the estimation of water demand. The impact on society of the South East running short of water would be very high and the reputation of the water industry would be severely diminished. It would be helpful if an estimation of the cost of a very limited water supply were to be made so this could be compared to the supposed savings of a pipeline scheme.</p> <p>4 The Abingdon Reservoir option has been under consideration for some 40 years and the opposition to it is considerable and unlikely to diminish. It is therefore debatable whether it is viable solution for the near future, the canal option is far more likely to be deliverable quickly. -</p> <p>5. The strong public support for the canal scheme has been given little credence in the Plan with little explanation why this is so. This strong support is not surprising as the canal delivers much public benefit, such as leisure activities, increased biodiversity and general economic expansion from canalside facilities. -The value of public support should not be underestimated, especially at a time when water companies are coming under increasing public scrutiny.</p> <p>6. There does not appear to have been any attempt to explore the option of examining the possibility of a joint funding scheme with costs being shared between the water companies and funding bodies such as the National Lottery. The National Lottery has provided much of the funding for the restoration of the Cotswold Canal to date and may well look favourably on a jointly funded scheme.</p>	<p>options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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1474	<p>I wish to express my support for the Cotswold Canals water transfer option having visited the presentation of alternative options at Bingham Hall, Cirencester.</p> <p>Using/restoring the Thames & Severn Canal gives in my opinion the maximum range of additional benefits* whilst providing the much needed extra 300ML/day of extra water resources needed for the South East in times of drought.</p> <p>*benefits not just for wildlife biodiversity but to a much greater proportion of the population too.(people using the canal for walking, running, cycling, fishing, boating, paddle boarding, canoeing etc).</p> <p>In addition, pumping costs and the associated carbon footprint would be reduced in comparison to the longer pipeline option from the River Severn near Tewkesbury. Longer term benefits would also result in terms of employment opportunities.</p> <p>I am a Trustee with Cotswold Boatmobility who offer boating to people with additional needs.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
1481	<p>I want to make my strong feelings known to you about this excellent proposal put forward by the Cotswold Canal Trust which will facilitate the provision of the required extra water in the Thames and the SE area but also saves using land for reservoirs and pipework and the cost of building these structures: it is a far better value option to use the existing canal.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>It would also be the best way to restoring this beautiful canal, for the environment and to improve and develop the leisure amenities for local communities.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1552	<p>I would like to see the proposal by the Cotswold Canal Partnership for water transfer from SW to SE region considered alongside the option put forward by the water companies.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
1552	The water companies have forfeited any credibility with their behaviour over the past decades.	We note your comments regarding trust and dissatisfaction with the water companies. We are committed to making progress in delivering a turnaround plan for the business which will achieve improvements to the levels of service day-by-day for our customers and protecting the environment. We operate within a strict economic and environmental regulatory framework and government and regulators will hold the company to account to deliver against its commitments.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
2250	The TW plans do not make environmental, financial, supply, best value, strategic or sustainable sense.	<p>Our plans are a breakdown of best value assessment carried out at regional level, through Water Resources in the South East. We have set out a preferred pathway and a range of alternatives to explain the decisions we've made.</p> <p>We are open to alternative methods and consulted fully on our approaches before developing the plan with our regional partners.</p>	The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.



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2250	Made my response online and was unable to copy you in, but suffice it to say that I objected on each of the questions raised in the consultation.	Your comment has been noted.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
2250	They should reduce the leaks, bring water from elsewhere, supply hampshire with desalination, reduce demand, introduce sensible targets, etc. Had they taken these actions from the get go the water issue would be a long way to being fixed already.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Water transfers from other companies Our plan includes regional transfers, forming key elements of an emerging water grid.</p> <p>Water Desalination Options We have considered a wide range of potential options including fourteen sites for desalination plants across the south east, two within the Thames Water region, both on the lower reaches of the river Thames. Desalination is part of the regional solution for some companies, but the modelling indicates that we have better value alternatives including water transfer and increased storage, both of which are located in the far west of the region and can also provide for more customers, both Thames Water's and our neighbours', as</p>	



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		<p>the water passes down river. Desalination costs have reduced over the last decade, providing the plant can also produce sufficient power to not be dependent on market prices, but this is a significant energy investment, including in some cases for transfer of water from the coast inland to where much of the water is needed. There are also additional ongoing environmental costs such as membrane production and disposal which have been considered.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	
2250	<p>I have today submitted a strong objection to the TW plans for water management, specifically for their proposal to build an enormous reservoir in our area.</p> <p>As our local political representatives please do everything in your power to prevent the reservoir being built.</p>	Noted, thanks for your feedback.	We have provided information in response to your comments, there are no changes as a result of your representation.
2290	the proposed reservoir is not needed (population and water shortage exaggeration).	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements. Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required. The number post the local plan period do not use linear extrapolation instead ONS Sub National Population Projections growth is applied to 2050 and post 2050 ONS National Population growth is applied.</p>	
2290	the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).	Our draft WRMP has detailed information on assessments we have undertaken on the options considered, including information on the cost and environmental assessments. Please refer to Section 7 of the draft WRMP and the accompanying appendices which include detailed Data tables.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
2290	Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	
2290	<p>I wish to object to the Thames Water Planned Reservoir for the following reasons:</p> <p>Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large</p>	



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		<p>reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	



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		<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
2324	<p>the proposed reservoir is not needed (population and water shortage exaggeration).</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
2324	<p>the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>Our draft WRMP has detailed information on assessments we have undertaken on the options considered, including information on the cost and environmental assessments. Please refer to Section 7 of the draft WRMP and the accompanying appendices which include detailed Data tables.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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2324	<p>Financial and Commercial facts: The Thames Valley customers pay. Thames Water’s shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we’re working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
2324	<p>We wish to object to the Thames Water Planned Reservoir for the following reasons:</p> <p>Environment: it will cause massive environmental destruction and damage, in construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination -these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it bearing in mind their dreadful record with leaks/sewage?</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the</p>	



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		<p>water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm³ option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; 	



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		<ul style="list-style-type: none"> Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>We also continue to investigate water recycling schemes in London as part of the RAPID process. Our preferred plan includes for a new river abstraction at Teddington supported by water recycling from the early 2030's.</p>	
2344	<p>I used to work for Thames Water and was on their OFWAT submission team for a number of years. Their plan each time was to maximise the cost of the work they said was essential be done over the following 5 years. Once their submission had been discussed with OFWAT, amendments made and a rate increase agreed, their work would really start.</p> <p>They'd then examine exactly where they cut cut corners to reduce their agreed</p>	<p>We note your comments on your experience of the previous regulatory process and distrust that the process will deliver the best outcomes.</p> <p>Thames Water has made a number of public announcements regarding sewage discharges and is working in an open and transparent way aiming to rebuild trust with customers.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>spend & allow more money in profits that they could pay out to shareholders & top managers.</p> <p>If they stated in their agreed plan that they would refurbish 150 sewage pumping stations, they'd actually plan to do the work at around 145. Though the most expensive jobs would be removed & replaced with work at low cost sites. A similar exercise would be undertaken at Sewage Treatment Works, with expensive jobs being down sized to save money.</p> <p>Due to their policies, river pollution from storm overflows, sewage pump stations and sewage works would actually increase instead of decreasing as their plan had claimed.</p> <p>It is this policy that has seen river pollution increase year on year since 1990. Of course, with EA inspections all but ceasing, this is not picked up on till many rivers have become totally dead.</p>	<p>Between 2025 and 2030 we will be investing at least £750m to reduced discharges of untreated sewage to sewers, and over £1bn to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>There are no quick fixes to the sewage challenges, population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	
2344	<p>On the clean water side, Thames has never been serious about reducing leaks in London & the surrounding areas as doing such work is very expensive. They just allow losses of clean water via leaks to continue while pushing plans for a new reservoir to meet demand. If they get their new reservoir proposal accepted, then they will never seriously attempt to reduce the % of water lost via leaks.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	



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2427	<p>I wish to object to the Thames Water Plan for the following reasons:</p> <p>Need: the proposed reservoir is not needed (population and water shortage exaggeration).</p> <p>Environment: it will cause massive environmental destruction and damage during construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p> <p>Transparency: the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p> <p>Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the</p>	



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		<p>River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
2460	<p>I am emailing to oppose the proposed Abingdon reservoir. It will spoil an area of countryside which is home to many, destroying the local area, roads, villages and wildlife for something that is unnecessary and badly planned. There are many other ways to deal with the water issues which have not been fully researched.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan, including the impacts on biodiversity, traffic and landscape and visual amenity from both local and regional viewpoints including the North Wessex Downs AONB. Furthermore, any future promotion of one of the</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
2476	<p>There must be better ways in these times of “Climate emergency” to guarantee water supply -in the UK’s south east and London area in the next decades? Ways that are resilient, environmentally sensitive, lowkey, and can be flexibly</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a</p>	<p>We have provided information in response to your comments,</p>



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	scaled up as needs arise (rather than basing them on exaggerated large population projections) ?	range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available. Both resilience and environmental impacts are included within our best value planning modelling and we consider that our preferred programme is a best value solution.	there are no changes as a result of your representation.
2476	my objections are not based on your runoffthemill local NIMBYism, but on global -and national climate concerns: surely , with a climate emergency on our hands, -we should -reduce demand, and look for solutions to resource challenges that are the lowestcarbon possible? -The moment for heroic “big cement infrastructure projects” -must be a thing of the past, as we need to halve our emissions by 2030 to meet the UK NetZero plan -starting now .	<p>Our Water Resources Management Plan is built on a foundation of demand management, both through leakage reduction and helping our customers to use less water. In our revised draft WRMP24, we have set out our plan to reduce leakage by 50% and to play our part in reducing our customers' per capita consumption to 110 l/h/d by 2050.</p> <p>Even with the large programmes of leakage and customer usage reduction that we have outlined, our planning shows that large, additional sources of water will be needed. For each option that we consider, we estimate the carbon emissions that would result from construction and operation of that option. When building our plan, we aim to produce an overall Best Value plan, considering the costs, emissions and environmental impacts of each scheme. Our planning has shown that adopting other options would likely to increase the overall carbon emissions associated with providing a reliable water supply over the long term, when considering both the emissions needed to build different options and the emissions that would arise from their use.</p>	We have revised our programme appraisal (please see Sections 10 and 11 of the rdWRMP) as a result of changes in the WRPG and as a response to comments from our regulators and stakeholders, but have not made changes due to this consultation response as our consideration is that our methods for programme appraisal are appropriate.
2476	It turns -out that generous subsidies - are available from the government for the entire building project - paid for through taxes by the general population ; It is is not intended for Oxford; maybe -London and the south east in the future, though there is no need currently for it ; but certainly also further afield in other countries - wherever water can be sold at a profit but instead the reservoir guarantees generous returns to shareholders for the next 150 years - water utility users -will be paying for that, through higher	We note your comments on trust and performance. Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. The investment in new water infrastructure is likely to follow the Thames Tideway Tunnel, which is	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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	<p>invoices for a long time to come. Not much help there with the cost of living crisis, either!</p> <p>And lastly a very relevant point, when dealing with -a large project for which only plans exist so far: -can we trust Anglia Waters to do as they say? What is their track record in terms of honesty, care for nature, citizens and customers? Can we have “good faith” relations with this company?</p> <p>The continuing and large scale failures of Thames Water on sewage spillages and on reducing leakage coupled with extraordinarily generous financial rewards to their shareholders and their management has completely destroyed their credibility – and specifically when it comes to their plans.</p>	<p>being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>On the discharges of untreated sewage, this is unacceptable, it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>In respect of the reservoir, we face significant pressures on our water supply from our changing climate and the need to protect our environment, and we have been working with other water companies across the South East, and other water users, to plan our long term water supply over the next 50 years, whilst protecting the environment. The consequences of not planning properly are huge for our economy, society and the environment. The work completed to date has shown that we need to invest in our existing infrastructure, work with government and customers to ensure we use our water resources wisely, as well as develop new sources and the reservoir is one of a combination of proposed schemes. We set out our decision making in our draft WRMP.</p>	
2476	<p>Encouraging behaviour change in customers, and lessening demand, rather than providing for it, is the climatefriendly way to go; and it does not involve much sacrifice on the side of customers. UK water users are some of the most wasteful in Europe and small lifestyle changes would go a long way for reducing daily water use.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
2476	<p>I am voicing my objections at your renewed effort to push for this megareservoir, though this time in the “reduced “ size of “only” -100 million cubic metres.</p> <p>Let us look at -what we know of the details for this reservoir:</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>1. Tenfifteen years building time ; 2530 metres high walls; a massive area the size of Gatwick (4 square miles) ; 5000 people employed to build it ; all using current roads, already more than busy with Oxford traffic. I don't need to be an environmental consultant to guess at the huge carbon footprint: extracting stone; transport it; building -the reservoir, - all using heavy machinery or trucks</p> <p>2. The water reservoir -is an engineering mega project - both in areasize, and height -of -walls: this -has never been built before. There is no precedent to learn from, this is uncharted territory. If the reservoir walls were to develop crack - how does that affect nearby properties?</p> <p>3. The size of the reservoir is still such that houseinsurance might not be satisfied that this is safe -to insure - so what happens to properties nearby if they -can't find insurance?</p> <p>4. Building -the water reservoir on a “floodplain” -runs counter to any common sense: what happens if rainfall is torrential (“rainbombs” are said -increase -with climate change, particularly in the UK) and accumulated waters need the flood plain to safely and slowly recede? There is the dangerous implication that the - risk of flooding is greatly increased by building a -water reservoir -on top of a floodplain .</p> <p>5. Lastly: the project for sure guarantees -to destroy biodiversity and nature currently existing on this floodplain - with the unlikely -promise of more - “biodiversity” after destroying it with a tenyearlong building -project (for trustworthiness of Anglia Water’s promises - please see point below).</p> <p>So - is all that sacrifice for locals (1215 years of dust and air pollution, noise and clogged up roads), tax and utility payers worth it in the end? Does it serve an essential need that can't be otherwise -provided for ? Are there better - alternatives?</p> <p>It turns out , they are three cheaper and especially more climatefriendly and lowkey propositions; and some of them will solve longstanding problems of Anglia Water, longdelayed :</p> <p>6. 138 million gallons of water, equivalent to the daily usage of around 1.75 million households, are wasted every day because of an ageing, Victorianbuilt</p>	<p>value plan, alongside information on the economic and carbon costs of the construction and operation of the options. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed</p>	



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	<p>water supply system in which Anglian Water has consistently underinvested. This is double the amount of water the reservoir would hold! If Anglia Waters - are truly concerned about safeguarding our water supply - would THIS not be the place to start with?</p> <p>7. Storing water in a massive tank does not make sense -in the context of climate change: after all, we have recently seen plenty of images of depleted water reservoirs in newspapers, due to climate change induced droughts! Instead, -transferring NEW WATER through the “Severn Thames Water Transfer”(STT) -is a more sensible proposition, bringing additional water from the wet west -to the waterstarved southeast of the UK: it’s cheaper and faster to build, makes use of already -existing infrastructure, -and it thus crucially resolves the immediate water stress. AND -it causes significantly less disruption and environmental damage.</p> <p>8. Desalination, water reuse or recycling can complement the STT described above .</p> <p>So why then has this reservoir even -been suggested? Does it serve the local population?</p>	<p>SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p>	



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		<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
2485	<p>The basis for my objections to the WRSE draft plan is Its highly selective use of statistics to overstate water demand within the WRSE region.</p> <p>The WRSE population projections overstate water demand in the region, which undermines the credibility of the WRSE draft plan. This issue has been raised many times with WRSE officials, but brushed aside by maintaining that use of these particular projections is sacrosanct: a 'fixed requirement' of the process. - Although future projection is always an area of statistical uncertainty, it is likely that future population in the region will not follow the local authority forecast projections that WRSE has adopted. It is not clear why other forecasts were rejected, such as the ONS ones. -The reasons for future projections being lower relate to less migration following Brexit, no unexpected improvements in life</p>	<p>All growth forecasts used by Thames Water, and WRSE, have been produced by ONS or a local authority. Our regulators within the Water Resource Planning Guidelines have clearly set out a requirement for all English water companies to use local authority plan based projections of future growth and that our Water Resource Management plans must plan to meet the predicted water demand should these developments be delivered.</p> <p>ONS forecasts have not been rejected and feature within our adaptive plan with their own demand forecasts. ONS projections are additionally used within the housing plan based scenario. Local authority plan projections typically extend 10 - 15 years into the future. As our planning horizon</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>expectancy and lower longterm fertility rates. -It is therefore hard to see how WRSE can justify the choice in the 'reported pathway' of projections associated with high population growth within the region. Adoption of these projections has the consequence of claiming that SESRO would be needed in all three scenarios of the WRSE draft plan. The consultation document uses graphics to present this highly uncertain information as 'fact', with 695 Ml/day required to supply a growing population, frightening readers into believing that 'if we do nothing we could face a shortfall of nearly 2.7 billion litres of water per day by 2027.'</p> <p>Although the plan goes on to say that the future is uncertain, there is nothing adaptable in the 'adaptive plan' about a proposed reservoir of 100 million m3.</p> <p>It is important that a revised WRSE plan should be based on more realistic population projections. as it makes no sense to wait until 2030 under the 'adaptive plan' to make such a revision.</p>	<p>extends to 2075 . We also revert to using growth based upon ONS projections once the end of the of the local authority plan period is reached.</p> <p>We have no reason to consider the projections have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	
2485	<p>The proposal is underpinned by the highly selective use of population statistics that overstate water demand within the WRSE region and put needless extra costs on Thames Water customers to meet an unrealistically high projected water demand.</p> <p>The population projections used by WRSE overstate water demand in the region, which undermines the credibility of the Thames Water draft Water Resources Management Plan. This issue has been raised many times with Thames Water and WRSE officials, but brushed aside by maintaining that use of these particular projections is a 'fixed requirement' of the process. Although making future population projections is always an area of statistical uncertainty, it is likely that future population in the region will not follow the local authority forecast projections that WRSE has adopted. It is not clear why other forecasts were rejected, such as those developed by ONS which have most recently suggested a much slower rate of population growth than they had previously projected. The reasons for future projections being lower relate to less migration following Brexit, no unexpected improvements in life expectancy and lower longterm fertility rates. It is therefore hard to see how WRSE can justify the choice in the 'reported pathway' of projections associated with high population growth within the region.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth within local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>Adoption of these projections has the consequence of claiming that SESRO would be needed in all three scenarios of the WRSE draft plan. The WRSE consultation document uses graphics to present this highly uncertain information as 'fact', with 695 Ml/day required to supply a growing population, frightening readers into believing that 'if we do nothing we could face a shortfall of nearly 2.7 billion litres of water per day by 2027.' Although the plan goes on to say that the future is uncertain, there is nothing adaptable about an 'adaptive plan' about a proposed reservoir of 100 million m3.</p>		
2485	<p>Climate change is more than just drought risk: WRSE has a set planning objective of achieving a one in 500 year level of drought resilience by 2040. However, there are other important aspects of climate change likely to significantly impact the hydrology of the area over coming decades and the environmental impacts of the SESRO proposal. Of particular concern is the relationship between severity of flooding through increased rainfall intensity and the physical impact of keeping a large body of water artificially on the Upper Thames flood plain.</p>	<p>Thank you for your comment, we appreciate your concerns. We acknowledge that climate change impacts are not limited to drought risk, and that climate change will have consequences for flood risk.</p> <p>The interaction between the SESRO proposal and flood risk is considered primarily through the RAPID Gated Process, and the SESRO Gate 2 report contains consideration of the flood risk impacts of the option. In the WRMP context, flood risk was one of the criteria considered when assessing different reservoir site options. It is important to note that different technical studies are undertaken at different points in the planning process. Given the volume of different potential options being considered in the WRMP, it is not feasible to undertake full Environmental Impact Assessments for each option, and so higher-level assessments are undertaken at the conceptual design stage. As we progress with more detailed design and consenting processes, detailed flood risk assessments will be undertaken in due course.</p>	<p>We have not made changes to our WRMP following this response. Detailed flood impact studies associated with the SESRO proposal will be carried out through the EIA process.</p>
2485	<p>Insufficient assessment of environmental impacts and a lack of alignment with the UK's legal obligations in relation to Net Zero targets. Much of the WRSE work on environmental impact is incomplete or based on third party data and unsubstantiated assumptions. It is therefore difficult to comment on how options will impact on habitats and whether or not the 'biodiversity net gain' can be verified. Nor is it clear what would be lost under the SESRO site, as modelling ignores the carbon sequestration value of the land taken for development. If the UK is to meet Net Zero obligations large areas of</p>	<p>Thank you for your response. The water industry has committed to achieving net zero carbon emissions across its operations by 2030, in line with the Government's target of net zero emissions by 2050, and Thames Water has committed to going beyond this to achieve net negative carbon emissions across its operations by 2040. Our plan has been created within the context of these commitments, and across our business we are taking action now to decarbonise our operations (for example, by electrifying our fleet and generating our own renewable energy) and working with our supply chain to</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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	<p>agricultural land will be needed to improve carbon sequestration in the soil, including the use of alternative land management regimes with this purpose in mind (for instance under Defra’s EMS).</p>	<p>decarbonise our capital works too. The actions we are taking as a business will pave the way for our plan to be delivered with as low a carbon footprint as possible. More specific measures to decarbonise the delivery of our SRO schemes have been described within our Gate 2 documents, and this work will be further developed in subsequent gates.</p> <p>Our options and plan have been progressed through a suite of environmental assessments at a level appropriate to the nature of this strategic plan. Further environmental assessments, including surveys and monitoring as needed, will be progressed as part of the planning application stage.</p> <p>The impact of the proposed SESRO scheme on carbon sequestration has specifically been considered within our draft plan (as it has for all options within the plan as relevant). The results of this assessment are in Appendix AA of our draft and revised draft plan, and have been used within the WRSE modelling as part of the Natural Capital metric. We have also considered carbon emissions (capital and operational) within our programme appraisal, and have incorporated the social cost of carbon into the "Net Present Value" cost calculation, according to government guidance.</p>	
2485	<p>Much of the work on environmental impact is incomplete or based on third party data and unsubstantiated assumptions. It is therefore difficult to comment on how options will impact on habitats and whether or not the ‘biodiversity net gain’ can be verified.</p> <p>Nor is it clear what would be lost under the SESRO site, as modelling ignores the carbon sequestration value of the land taken for development and the opportunity costs of alternative carbon sequestration uses. If the UK is to meet Net Zero obligations large areas of agricultural land will be needed to improve carbon sequestration in the soil, including the use of alternative land management regimes with this purpose in mind (for instance under Defra’s EMS). For the land taken by the different SESRO site options, there are significant opportunity costs associated with sacrificing the land verses alternative uses that</p>	<p>The options we have considered, including SESRO, have been progressed through a suite of environmental assessments at a level appropriate to the nature of this strategic plan.</p> <p>The impact of the proposed SESRO scheme on carbon sequestration has specifically been considered within our draft plan (as it has for all options within the plan as relevant). The results of this assessment are in Appendix AA of our draft plan and revised draft plan, and have been used within the WRSE modelling as part of the Natural Capital metric.</p> <p>In our WRMP we are required to determine the options which ensure a resilient supply of water for our customers, and so our consideration is of different options which achieve this aim. A plan including SESRO involves less carbon emissions overall than a plan excluding SESRO.</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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	<p>optimise carbon sequestration. Natural capital gained through carbon capture and different land management practices in place of building a reservoir would be aligned to the UK netzero pathway and would also represent a far higher biodiversity net gain than any of those claimed by the incomplete assessments presented in relation to SESRO.</p>		
2485	<p>Public trust in water companies is currently at an alltime low due to poor performance in looking after customers, anger about sewage discharges (illegal or otherwise) and failures in meeting leakage reduction targets. Recent reports of water company lobbying to ‘water down’ a tougher regulatory approach to storm discharges have not been well received by the public. Against this backdrop, it is difficult to trust the WRSE proposals as being in the public and the environment’s best interests, rather than being designed primarily to meet those of shareholders. Water companies, which are mostly owned by interests outside the UK, have a perverse incentive to build large pieces of infrastructure rather than fix some of the problems associated with existing infrastructure.</p>	<p>We note your comments on trust and performance. Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we’re working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. The investment in new water infrastructure is likely to follow the model used for the Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>On the discharges of untreated sewage, this is unacceptable, it’s understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>Our water resources are under pressure and the purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. We do need to plan ahead if we are to ensure a resilient water supply in the face of our changing climate and protect the environment.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
2485	<p>Overall, I consider that a better approach for the Thames Water draft Water Resources Plan would be to bring forward the SevernThames Water Transfer scheme. This is a cheaper option with a lower carbon</p>	<p>We note your preference for the Severn to Thames transfer (STT), we have considered the transfer alongside other schemes and the work completed to date shows that the that a new reservoir is a better first option, ahead of a</p>	<p>We have provided information in response to your comments,</p>



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	<p>footprint, with greater drought resilience and is more aligned to the 'adaptive' planning approach. It is also important that a revised plan should be based on more realistic population projections.</p>	<p>transfer from the River Severn, as it:</p> <ul style="list-style-type: none"> • is less expensive overall, with lower running costs; • is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; plus forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why our customers tell us they'd prefer a new reservoir over other schemes. <p>In regard to population projections, we have considered a range of population forecasts and complied with regulatory guideline in preparing the forecasts. Since the draft WRMP we have updated the population forecasts utilising the most recent ONS population and household data, and updated information from local planning authorities.</p>	<p>there are no changes to the plan as a result of your representation.</p>
2485	<p>Thames Water continues to make illegal discharges of untreated sewage into the freshwater environment, whilst still paying dividends to its shareholders. This situation does not instill much confidence in the real motivation behind the SESRO proposal.</p> <p>Public trust in water companies is currently at an alltime low due to poor performance in looking after customers, anger about sewage discharges (illegal or otherwise) and failures in meeting leakage reduction targets. Recent reports of water company lobbying to 'water down' a tougher regulatory approach to storm discharges have not been well received by the public. Against this backdrop, it is difficult to trust the Thames Water proposals as being in the public and the environment's</p>	<p>We note your comments on trust and performance. Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. The investment in new water infrastructure is likely to follow the model used for the Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>On the discharges of untreated sewage, this is unacceptable, it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>best interests, rather than being designed primarily to meet those of its shareholders. Water companies, which are mostly owned by interests outside the UK, (including the China Investment Corporation), have a perverse incentive to build large pieces of infrastructure rather than fix some of the problems associated with existing infrastructure and poor environmental performance.</p>	<p>investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>Our water resources are under pressure and the purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. We do need to plan ahead if we are to ensure a resilient water supply in the face of our changing climate and protect the environment.</p>	
2485	<p>The basis for my objections to the WRSE draft plan is a lack of trust in water sector to put forward proposals that meet the wider interests of the public and environment, rather than acting primarily in the interests of their shareholders (e.g. by favoring the construction of large pieces of infrastructure over other options).</p>	<p>We note your lack of trust in the water sector. Whilst we are a privately owned company we, and the sector, and highly regulated with Defra, the EA and Ofwat monitoring our performance and holding us to account. The investment in new water infrastructure is likely to follow the successful model applied for the Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
2485	<p>A lack of trust in Thames Water to put forward proposals that meet the wider interests of the public and environment, rather than acting primarily in the interests of its shareholders (e.g. by favoring the construction of large pieces of infrastructure over other options, such as fixing leaks). This is evidenced through the poor record of Thames Water on fixing leaks and in curtailing illegal sewage discharges into rivers. The recent BBC series by Paul Whitehouse 'Our Troubled Rivers' is just one example of many indicating why this lack of trust has developed.</p> <p>Thames Water was also the water company that leaked the largest volumes of water in 2021/22, according to the industry body Water UK, losing 217bn litres of water over the year. More demanding targets are needed for fixing these leaks and driving more rapid efficiency gains from existing water</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	supplies.	<p>increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be</p>	



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		<p>identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p>	
2485	<p>efforts to reduce water loss through leakage and better demand management are still very unambitious and moving at a slow pace (16% by 2030). In the case of Thames Water, if targets for a 50% reduction are met by 2050, the rate of loss will still be double that of some of the other WRSE water companies.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
2485	<p>I am extremely disappointed at having to submit further objections to the proposed SESRO. The reasons for its previous rejection are still valid and there is nothing in the current draft plan that has changed my views.</p> <p>The UK is committed to Net Zero by 2050 and it is therefore</p>	<p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>imperative that new infrastructure plans choose options with the lowest possible carbon impacts. The current proposed SESRO is not the lowest carbon option and the plans are not aligned to the UK's legally binding Net Zero targets.</p> <p>My deep concerns relating to increased flood risks associated with the SESRO 100 Mm3 reservoir located at a site in the middle of the Upper Thames flood plain. SESRO must be viewed as unproven and experimental as a location for a reservoir, with likely increased risks of severe flooding for the area's residents and businesses.</p> <p>Climate change impact is more than just increased drought risk: WRSE has been set the planning objective of achieving a one in 500 year level of drought resilience by 2040. However, there are other important aspects of climate change likely to significantly impact the hydrology of the area over coming decades and the environmental impacts of the SESRO proposal. Of particular concern is the relationship between severity of flooding through increased rainfall intensity and the physical impact of keeping a large body of water artificially on the Upper Thames flood plain. There is no precedent for the location of such a reservoir on this scale on a UK flood plain, so in this aspect the proposal is a flood risk experiment, increasing the severe flood risk to local inhabitants and businesses. Although no independent modelling of the flood risk aspects posed by SESRO has been carried out, basic physics dictates that a body of 100M m3 of water will exert a considerable pressure on the underlying and surrounding water table within a wide radius of the site perimeter. This will result in a rise in the water table in areas of residential housing in surrounding villages and new build estates. Although this doesn't feature within the costeffectiveness analysis of the SESRO option, costs of this impact would be externalized and not carried by the SESRO operator. Instead these costs will fall on homeowners and businesses and a general decline in property values. It is likely that insurance premiums will also need to rise to cover the increased flood risk and that in some</p>	<p>Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>With regard to groundwater flood risks, for our Gate 2 submission to RAPID we did undertake modelling and assessment of the groundwater flood risks of SESRO. As noted in Section 4.28 of our main Gate 2 report, this modelling confirms that, <i>"When the planned drainage measures are simulated in the model, groundwater levels are reduced by the presence of the proposed toe drain, flood storage area and watercourse diversions and through the inclusion of the proposed groundwater drain around the embankment. When these measures are included, the increased risk of groundwater flooding is reduced to a low level."</i></p> <p>The carbon footprint during construction and operational phases of the SESRO options has been calculated, as for all other options considered by the WRMP. This information is taking into account when deriving the overall optimum best-value plan for the South East. This analysis for the Best-Value Plan takes a 'worst-case' assumption assuming no future mitigation in construction phase carbon emissions; hence any future reductions in construction phase carbon through, for example, alternative plant or low carbon materials will be an additional benefit.</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we supply is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we've got a plan to fix it. We remain committed to reducing total leakage by 20% by 2025 and as part of our draft WRMP we're aiming for a 50% reduction by 2050.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water</p>	



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	<p>cases insurance might be declined.</p> <p>The carbon impact of the SESRO proposal and scenario assessments are unacceptably high and cannot be supported when efforts to reduce water loss through leakage and better demand management are still very unambitious and moving at a slow pace (16% by 2030). For Thames Water, if targets for a 50% reduction are met by 2050, the rate of loss will still be double that of some of the other WRSE water companies. The UK has a legal requirement to meet its Net Zero targets, yet the SESRO environmental impacts are high with mitigating actions mostly wishful thinking and very sketchy. Modelling work on carbon impacts includes a menu of mitigating actions, but many of these are infeasible within the SESRO proposed timelines and amount to greenwashing (e.g. use of EV's within construction process, or green hydrogen).</p> <p>Taking the highest impact SESRO scenario (80+42Mm3 capacity variant), the wholelife carbon impact is projected to be 510,860 tCO2e and the least impactful (30 Mm3) would be 289,000t CO2e. There is a high level of uncertainty associated with these estimates (+/30%) as well as some very provisional assumptions and some missing elements (e.g. impacts during decommissioning, possible GHG emissions from the surface of the reservoir as it ages, particularly from methane). Most of the modelled emissions are associated with 'capital carbon' (i.e. during the construction phase). To put these numbers in context, the HS2 project has a 'before use' impact of 1,451,000 CO2e and the construction of CrossRail has a carbon impact (scope 1,2 and 3 over a 120 year period) of 1.7Mt CO2e. These comparisons, although with different types of construction projects, illustrate that the SESRO carbon impact projections are very significant on a national scale and at odds with the UK's Net Zero pathway. There is therefore a pressing need to take wholelife carbon impacts from the study documents and</p>	<p>for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to</p>	



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	<p>compare them against alternative options to improve water supply (e.g., water transfer schemes, water demand management, and investments to reduce water leakage).</p>	<p>the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>We also continue to investigate water recycling schemes in London as part of the RAPID process. Our preferred plan includes for a new river abstraction at Teddington supported by water recycling from the early 2030's.</p>	
2485	<p>I am extremely disappointed at having to submit objections to the WRSE draft plan and specifically the proposed SESRO.</p> <p>- My deep concerns relating to increased flood risks associated with the SESRO 100Mm³ reservoir located at a site in the middle of the Upper Thames flood plain.</p> <p>There is no precedent for the location of such a reservoir on this scale on a UK flood plain. Although WRSE has not conducted independent modelling of the flood risk aspects of SESRO, basic physics dictates that a body of 100M m³ of water will exert considerable pressure on the underlying and surrounding water table within a wide radius of the site perimeter. This will result in a rise in the water table in areas of residential housing in surrounding villages and new build estates. -Although this doesn't feature within the costeffectiveness analysis of the SESRO option, costs of this impact would be externalized and not carried by the SESRO operator. Instead these costs will fall on homeowners and businesses and a general decline in property values. It is likely that insurance premiums will also need to rise to cover the increased flood risk and that in some cases insurance might be declined.</p> <p>-The carbon impact of the SESRO proposal and scenario assessments are unacceptably high and cannot be supported. The UK has a legal requirement to meet its Net Zero targets, yet the SESRO environmental impacts are high with mitigating actions mostly wishful thinking. Modelling work on carbon impacts includes a menu of mitigating actions, but many of these are infeasible within the SESRO proposed timelines (e.g. EV's, green hydrogen).</p> <p>Taking the highest impact SESRO scenario (80+42Mm³ capacity variant), the wholelife carbon impact is projected to be 510,860 tCO₂e and the least</p>	<p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>With regard to groundwater flood risks, for our Gate 2 submission to RAPID we did undertake modelling and assessment of the groundwater flood risks of SESRO. As noted in Section 4.28 of our main Gate 2 report, this modelling confirms that, "<i>When the planned drainage measures are simulated in the model, groundwater levels are reduced by the presence of the proposed toe drain, flood storage area and watercourse diversions and through the inclusion of the proposed groundwater drain around the embankment. When these measures are included, the increased risk of groundwater flooding is reduced to a low level.</i>"</p> <p>The carbon footprint during construction and operational phases of the SESRO options has been calculated, as for all other options considered by the WRMP. This information is taking into account when deriving the overall optimum best-value plan for the South East. This analysis for the Best-Value Plan takes a 'worst-case' assumption assuming no future mitigation in</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>impactful (30 Mm3) would be 289,000t CO2e. There is a high level of uncertainty associated with these estimates (+/30%) as well as some very provisional assumptions and some missing elements (e.g. impacts during decommissioning, possible GHG emissions from the surface of the reservoir as it ages, particularly from methane). -Most of the modelled emissions are associated with 'capital carbon' (i.e. during the construction phase). To put these numbers in context, the HS2 project has a 'before use' impact of 1,451,000 CO2e and the construction of CrossRail has a carbon impact (scope 1,2 and 3 over a 120 year period) of 1.7Mt CO2e. These comparisons, although with different types of construction projects, illustrate that the SESRO carbon impact projections are very significant on a national scale and at odds with the UK's Net Zero pathway. There is therefore a pressing need to take wholelife carbon impacts from the study documents and compare them against alternative options to improve water supply (e.g., water transfer schemes, water demand management, and investments to reduce water leakage). For the land taken by the different SESRO site options, there are significant opportunity costs associated with sacrificing the land verses alternative uses that optimise carbon sequestration. Natural capital gained through carbon capture and different land management practices in place of building a reservoir would be aligned to the UK netzero pathway and would also represent a far higher biodiversity net gain than any of those claimed by the incomplete assessments presented in relation to SESRO. Overall, I consider that a better approach for the WRSE plan to take, would be to bring forward the SevernThames Water Transfer scheme. This is a cheaper option with a lower carbon footprint, with greater drought resilience and is more aligned to the 'adaptive' planning approach that the WRSE plan so strongly advocates.</p>	<p>construction phase carbon emissions; hence any future reductions in construction phase carbon through, for example, alternative plant or low carbon materials will be an additional benefit.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	



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		<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p>	



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		<p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p>	
2490	<p>I would strongly advocate the greater use of canals & rivers for transfers for water supply.</p> <p>This would have far greater benefits for the environment, provide far more social and health benefits, be more resilient than an enormous reservoir and probably be more economical. Gravity (free!) can be used for half of the waters' journeys! I would also strongly recommend a pipeline along the route of the Stroudwater & Thames and Severn Canals (Cotswold Canals) uphill as far as the eastern end of Sapperton tunnel and then using the restored canal down to Inglesham and the Thames.</p> <p>A pipeline would probably be best for the uphill western end as using the canal and a series of pumps might be rather vulnerable, although having that option with mobile pumps for emergencies might be useful. So using the route of the western end of the canal for the pipeline, maybe under the towpath would be sensible and cheaper than purchasing numerous parcels of land for an alternative route. Putting a pipeline through the base of the tunnel would save on pumping costs than if the route were to go higher over the Cotswolds. Once through the tunnel, gravity and a series of bywash channels can be used alongside the locks. It would also be sensible to install a power line along the canal side to provide recharging facilities for boats. To provide greater resilience some reservoirs along the route would be advisable. Some of these can be used as leisure facilities thereby bringing potential sources of income. -Also to add extra resilience I would advocate also using a restored Wilts & Berks Canal on a</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm³ in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>similar basis thereby bringing water to the Thames near Abingdon. I also think that some of the gravel pits along the Thames valley could be reengineered to be reservoirs, again for greater resilience. The biodiversity net gain from all of this could be considerable.</p> <p>These canals would bring tremendous benefits for wildlife and nature recovery especially as wildlife needs corridors. The towpaths are a wonderful social asset and can be used as sustainable travel routes as well as for leisure. The health benefits of these are great.</p> <p>This is in stark contrast to SESRO which is of little environmental or social benefit and is extraordinarily unpopular. It will also take a long time to plan, construct and fill ready to use. From a truly best value point of view, valuing environmental factors and social benefits as well as the economics of a case, restoring the Cotswold canals to bring water from the Severn to the Thames must be better by far and quicker and easier to deliver. This is very important with our current climate uncertainties and huge population growth in the south east. Having public support should be helpful for you too. Please get started on this as soon as possible!</p>	<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
2490	<p>I would like to see more cooperation between water companies and navigation authorities -CRT and EA and possibly some more smaller ones in other areas.</p> <p>The inland waterway system in England is a much undervalued network and I believe that water companies could well make much more use of it, not only to move water around the country from areas with plenty to areas under water stress but also for additional storage adjacent to the waterway system. See https://waterways.org.uk/wpcontent/uploads/2022/11/WaterwaysforTodayREVIS-EDNovember2022FORWEB.pdf for the many benefits -social, economic and environmental of our system.</p>	<p>Thank you for your comment. We have worked with several navigation authorities on aspects of the draft SE plan and our draft WRMP for example the Canal and River Trust, the Wilts and Berks Canal Trust, and the Cotswold Canals Trust but your suggestion is noted, and we are keen to consider opportunities for improved watercourses and wider opportunities with partners.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
2490	<p>Of course the water in these resources flowing down the Thames would be of a higher quality if Thames Water could clean up and improve the STWs along the route which in itself would greatly benefit all of us and the environment.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of</p>	<p>We have provided information in response to your comments,</p>



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		<p>Response document.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p>	<p>there are no changes as a result of your representation.</p>
2490	<p>Yes, we do need more reservoir capacity. But we do not need the monster proposed near Steventon/Abingdon. I believe that would pose a big security risk and it will take so long to build and fill that other provision is really necessary.</p> <p>Along the Thames valley and its tributaries are many water bodies, often former gravel pits. With appropriate engineering some of these could be utilised as reservoirs for water supply. The hole and the water are already in place so it should be much quicker to utilise them than your grossly unpopular monster. A greater number of dispersed storage areas should be much more resilient than one monster. And by utilising the inland waterways system you could move water from the west to our area through the Cotswold Canal and the Wilts & Berks canals and possibly even the Kennet and Avon Canal.</p> <p>Please do think more creatively about your water supply system and drop the monster!</p>	<p>The feasible options list for the draft WRMP included a wide range of alternative options and alternative reservoir sites. In general, the gravel pits along the River Thames are not considered as feasible options for new water abstraction due to the small scale of storage they could supply and the fact that they are often in hydraulic connectivity with the main River Thames, therefore abstraction during low flow periods could create unacceptable impacts on the river and would be unlikely to be licensed. SESRO provides the opportunity to store excess water during high flow winter periods, store it 'off-line' and then return it to the river during lower flow periods providing both an environmental benefit and a new water resource.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
3500	<p>I make the following submissions on Thames Water's proposals for water transfer from the River Severn to the River Thames.</p> <p>My first comment is that I see no mention in the latest Thames Water report on using the Cotswold Canals' route, i.e. the historic route of the Stroudwater Canal and the Thames & Severn Canal. -Thames Water still seems to 'stuck' on their longrunning proposal for a reservoir at Abingdon fed by piping from the River Severn. -This is the same proposal that a government inspector rejected a decade ago for environmental reasons and also because of objections from the people of Abingdon. -And in the meantime, despite spending time and expense over the past decade in evaluating possible use of the Cotswold Canals' route, the latest TW report makes no mention of the benefits/drawbacks of using that route. -I can't help but say, with due respect, that it has just paid 'lip service' to serious consideration of the Canals' route for water transfer and has never taken it seriously.</p> <p>According to what I read in the TW report, the main factors to consider in evaluating water transfer proposals today are (i) the longterm environmental impact, and (ii) cost. -My submission is use of the Cotswold Canals' route would</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>be superior to Abingdon Reservoir plus piping on both (i) and (ii).</p> <p>In regard (i), reopening of the remaining unreopened Thames & Severn Canal would provide about 25 miles of twosided environmental area for animals, birds, insects that cohabit on water banks, so approximately 50 miles for such cohabitation. -If a reservoir were say a quarter mile in diameter, that would still only provide about 1 mile of water bank for similar cohabitation. -The Cotswold Canals themselves were about 35 miles long, but the Stroudwater Canal section of about 10 miles at the western end of the Canals' route is already essentially reopened thanks to National Lottery Funding and volunteers. -So I have only compared the remaining 25 miles of canal to what would probably be the perimeter size of a reservoir like the one earlier proposed at Abingdon.</p> <p>In regard (ii), TW did cost evaluations for a reservoir at Abingdon with various piping routes and for use of the Cotswold Canals' route for 300million litres/day of water transfer -and both were similar in cost. -TW has said that only the reservoir proposal could handle 500million litres/day of water transfer if it were needed, but that runs into the reality that the Severn River could not give up more than 300million litres/day very often to a water transfer scheme without having negative consequences for water demand downstream on the River Severn. -So the possible greater need for water flow to a reservoir seems to be, with due respect, a red herring and just a factor introduced to put a block on proper consideration of the Canals' route.</p> <p>Also, in regard (ii), one has to consider the actual financial benefits between the two water transfer schemes. -If the Canals' route were to be used, it would be ready for water transfer within a decade whereas the reservoir would not be fully functional until about 40 years' time. -So in making a comparison on financial benefits, consideration has to be given to the benefits to those living along the Canals' route over the intervening 30 years. -Not only would boaters be able to move between the Severn and Thames Rivers on a reopened canal, they would also be spending money on their travel in towns such as Stroud and Stonehouse and Gloucester. -An Abingdon reservoir would provide no similar benefits to communities even when finished in 40 years' time. -And what if increased</p>	<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>Thames Water flow is needed before 40 years? -Better to have the extra water available within a decade, giving more time to plan out just where/how a reservoir should be built at Abingdon or elsewhere in the Oxford area.</p> <p>A reservoir near Abingdon may be needed at some future time, but why is Thames Water prioritizing such reservoir over a Canals' route scheme? -Surely, it should be the other way around. -Get extra water flowing in just over a decade and then look to the longer term. -Incorporating increased water transfer with reopening of an historic canal route is such a plus/plus that it has to be given some consideration and not just fluffed off by TW. -If Thames Water should be concerned about losing control over water flow, it shouldn't be. -It would have ultimate control just as much as if it were controlling the pumps on piping to a reservoir. -And as far as disruption to communities along the Canals' route during construction, that would not be a problem. -The Cotswold Canals Trust has developed a route using the path of an old rail line that would run around Stroud. -Besides, everyone I've spoken to in Stroud on using the Canals' route have been extremely positive and enthusiastic.</p> <p>These are my thoughts on comparing a reservoir plus pipeline for water transfer with a scheme using the Cotswold Canals' route.</p>		
3500	<p>Surely a Best Value Plan has to be a plan that gives proper weight to all factions that might benefit -those in the lower Thames who would not have to ration water in future years BUT ALSO those closely involved with and living beside with the chosen water transfer path. The inclusion of a serious discussion of possible inclusion of the canal route in water transfer would demonstrate that greater thought and consideration is being given than simply building a massive water reservoir and then building a pipeline almost three times as long as one that would be needed for the canal proposal. The water companies should appreciate that any pipeline from the Severn that did not include the canal route would have to extend over 200 feet greater in height than one making use of the Canal's Sapperton Tunnel. And, as far as a pipeline through Stroud causing problems for the town and its inhabitants, every person in the town whom I've spoken with would welcome the resulting temporary upheaval to the benefits that would accrue from a reopened canal. Surely more serious consideration</p>	<p>While it is true that the STT option incorporating the Cotswolds Canal would bring additional recreation benefits, it is important to assess this in the context of the additional cost of adopting this solution (the pipeline option being around 25% cheaper). The STT canal option also limits the capability of the scheme to 300 MI/d, when 400 or 500 MI/d options may be preferable. The choice of STT route has been discussed more fully in the Severn Thames Transfer SRO documentation.</p>	<p>Our consideration is that we have appropriately considered the Severn Thames Transfer option and so we have not made changes following this response</p>



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	<p>has to be given to use of the canal route than the single sentence on page 28.</p> <p>I do hope that some of what I have written will be given due consideration by the WRSE and will not simply be discounted.</p>		
3500	<p>In your Plan I just read a single sentence on page 28 regarding the possible inclusion of the route of the Cotswold Canals as part of a SeverntoThames water transfer plan -and that sentence was disparaging. It's obvious to any reader of the Plan that the "pumps and pipes" people who run water companies simply do not want to look at any option other than a reservoir near Abingdon and pipes and pumps to feed water to it from the Severn. Despite that, I'm taking the time to point out that your document was titled 'WRSE Best Value Plan', and was supposed to encompass ALL of the factors involved with transferring water, including environmental factors and social factors.</p> <p>The Plan makes obvious that a reservoir near Abingdon would not be ready for receiving water until the mid2040s, and would take years after that to fill. The plan that he Cotswold Canal Trust proposes would be ready by the early 2030s, with water flowing into the Thames at that time. Given that time difference of perhaps 15 years, the WRSE should be weighing as part of its Best Value the cost benefits that would be accruing from that earlier initial water transfer, for instance, the economic benefits to municipalities along the canal and the expenditures of those travelling along the canal. There are also benefits to having an enhanced water flow on the section of the Thames between Lechlade and Abingdon that an Abingdon reservoir could never offer, even after the reservoir was built -such as providing of water for housing or business developments along that section of the Thames. There was no discussion of those considerations which I -and no doubt other persons -had made in their submissions prior to the issuance of the 'Best Value Plan'. Why weren't any comments included in the Best Value Plan as to why the WRSE apparently has more or less discounted water transfer using the canal route? I well remember a government inspector a decade ago pointing out the problems with a large Abingdon reservoir and telling Thames Water to come back with a modified plan. Yet all this Best Value Plan comes back with is the same old tired scheme involving a large reservoir near Abingdon and pipes and pumps to fill it, and with</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>its long lead time.</p> <p>The WRSE Best Value Plan states that the canal route would limit water transfer to a flow of 300 million litres whereas 500 million litres could be needed. With respect, this is a red herring. 500 million litres could only be achieved in the most exceptional of circumstances, given the amount of water that flows at present in the Severn and discounting any future needs for water along upper reaches of the Severn. It seems to be just another attempted impediment being placed by the water companies, particularly Thames Water, against including the canal route from being properly included as an option.</p> <p>The Cotswold Canal option for water transfer would offer greater environmental benefits than the alternate Abingdon plan. The WRSE Plan mentions that a large reservoir would have a large waterbank length, i.e. perimeter, for wildlife such as birds and animals and insects to cohabit, but that has to be compared to what the canal route would offer. Assuming that the reservoir might be perhaps 1/4 mile across, such reservoir would provide about one mile of waterbank length for wildlife. In comparison, the 35 miles of canal would provide about 70 miles of waterbank length for that cohabitation. This surely is an environmental benefit of using the canal route that needs to be considered. There is nothing in the Plan comparing the environmental benefits of the reservoir versus the canal route.</p>	<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
3711	<p>I am also concerned that there seem to be a number of long term water leaks in the wider area which must cause the wastage of hundreds of gallons of water the authority has spent money in treating. Double wastage in my eyes and something that should be top priority.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p>	



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		<p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
3711	<p>My main concern is as an active river user and a nature lover. I cannot see how this removal of water and reintroducing replacement fluid which is not of the same standard can be acceptable. This area is thriving with both wildlife and leisure use. A small change in water composition or temperature will have a large impact on the wildlife.</p> <p>If the water is of the same standard as the water being extracted why is it not being pumped directly to East London?</p>	<p>Thank you for your response to the consultation and raising your concerns, which have been noted.</p> <p>The Teddington DRA scheme is a drought resilience scheme, and it would only be fully operational during drought periods, to help maintain water supplies – typically during late summer through to late autumn on an intermittent basis. There would be strict rules guiding when and how we could use the scheme and we would need agreement from the Environment Agency.</p> <p>Protecting and enhancing the environment is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>The reason that we do not propose to pump the treated water directly to East London is one of risk management. The Thames Lee Tunnel (TLT) is currently used for the transfer of "raw water" for treatment into "potable" water at several Water Treatment Works (WTW) in NE London.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>Whilst it is technically possible to put highly treated effluent directly in to the TLT, the proposed Teddington DRA design takes a precautionary approach in line with current best practice.</p> <p>Any treated effluent that would be discharged into the TLT would be re-abstracted via Lockwood reservoir for drinking water treatment so would be considered as planned direct potable reuse (DPR).</p> <p>The water utilised for drinking water production falls under a different set of legislation than that covering environmental discharges (The Water Supply (Water Quality) Regulations 2016 (England)). Drinking water is self-evidently treated to a far higher standard than that required by the environmental legislation covering discharges to rivers. Drinking water supply involves a risk assessment approach, documented in a Drinking Water Safety Plan (DWSP). By definition, the risk assessment methodology adopts a precautionary approach to the drinking water treatment process and assessment of new water sources.</p> <p>This supports our aim to continue achieving high compliance with drinking water regulations and promote schemes that will gain widespread public acceptance. The suitability of our approach to assess and mitigate risks was confirmed by Professor Jennifer Colbourne, former Chief Inspector of the Drinking Water Inspectorate as part of WRMP19.</p> <p>Teddington DRA will be required to conform with all environmental legislation as overseen by the EA. Whilst still rigorous, these permitted limits are different and distinct to those covered by The Water Supply Regulations. Furthermore, existing water supply systems that are managed under a Drinking Water Safety Plan (DWSP) and are considered safe, should not be impacted by additional planned discharges in the catchment.</p> <p>Therefore, indirect options for reuse are considered to be a lower risk to drinking water safety, as compared to the option of direct discharge to the TLT.</p> <p>In line with this position, any discharge from Mogden STW direct in to the TLT would require full Advanced Water Treatment (AWT). The additional</p>	



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		<p>treatment would need space for a new treatment plant, which isn't available at Mogden STW and we'd therefore need to buy additional land, which would increase the overall environmental impact and cost. In addition, AWT processes are more energy and resource intensive, increasing the carbon footprint, and as per the WRSE assessments, don't reflect best value to our customers when compared to the Teddington DRA scheme. Schemes in East London have been looked at as part of the plan but have been shown to be more expensive for equivalent sized schemes.</p>	
3729	<p>Cotswold Canals offer the best Severn/Thames Water Transfer option. As a retired civil engineer, I am greatly concerned that the Water Authority's plans have been set for many years, and there now seems to be great reluctance to improve them despite changing times and new priorities. -A single purpose buried pipeline, and a huge new reservoir do not seem to reflect the wider spread of public benefits that this project could offer. -Nor does it reflect the creative cooperation shown by Network Rail and the Highway Agency towards the Cotswold Canals restoration..</p> <p>The restoration and use of the Cotswold Canals for water transfer from the Severn could augment flow in the Thames by up to 300 million liters (300,00 cu.m.) per day in a fairly short time frame (10 years ?) -This is a massive increase, relieving pressure on the water resource for many years. -Restoring the canal will have the ancillary benefit of creating a major new recreational and environmental amenity, something that has already been demonstrated by the Kennet and Avon Canal restoration in the 1990s. -Using the existing Sapperton Canal Tunnel provides the lowest crossing of the Cotswolds, significantly reducing pumping energy requirements. -As will the reduced friction from using an open channel for much of the route. -At Siddington, where the canal drops through several Locks, a hydro generator could recover some of this pumping energy. -By contrast. the current proposal for a buried pipeline has NO amenity value, and could well become an embarrassment to the unimaginative entities who sponsored it. - A showcase for bad decision making.</p> <p>Further water supply enhancement is available by adapting some of the old gravel pits around Cricklade and Fairford/Lechlade for seasonal water storage. -</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>There are between 12 and 15 square kilometres of old gravel pits in these areas, and more are still being excavated. -These were once rich agricultural bottomland that have been permanently destroyed. -Some of them have acquired recreational uses, and most also offer wildlife benefits. -But they also have huge potential for short term water storage, balancing the flow obtainable from the Cotswold Canal Water Transfer to match seasonal needs. -Typically the water level in the ponds might fluctuate about a metre or so, up or down around a mean level, thus providing for a summer surge or even some winter flood mitigation. -A big plus of this approach is that the canal water could flow into many of the ponds by gravity, and that the capacity of the storage could be increased over the years as more gravel pits are dug out. Maybe some can even be filled and returned to agriculture, using the overburden waste from the gravel operations or from any pit modifications needed to adapt them for water storage. -Further benefit might come from enhanced groundwater recharge, which could then become available during times of drought. -</p> <p>Compare this environmental friendly storage plan with the proposed Abingdon reservoir, which will likely cost far more; destroy many acres of prime agricultural land; take years to build; and is strongly opposed by the local community!</p> <p>To summarize: It would appear that a better plan could be developed centered around restoring the Cotswold Canals, which was not a realistic option when water transfer was first considered many years ago</p> <p>Using the Cotswold Canals to transfer water from the Severn could add up to 300 million litres of new supply into the Thames, sufficient for many years of growth.</p> <p>Using the Cotswold Canals would bring forward the completion of the ongoing canal restoration, and all the benefits associated therewith. -A measure of credit will likely reflect on the water authorities.</p> <p>-The Canal route offers the lowest Cotswold crossing and the least energy</p>	<p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>required for pumping. -Some of this energy could be recovered by a generator at Siddington.</p> <p>The many acres of existing and future gravel pits that border the canal route offer an opportunity to store water to meet seasonal demand without further destroying agricultural land, or significantly impacting existing recreational and wildlife amenities.</p> <p>And none of this plan would foreclose on further water supply expansion beyond the current planning horizon.</p> <p>I very much hope that the present pipeline/reservoir plan will be reconsidered to include the Cotswold Canals.</p>		
3729	<p>I am writing to comment on your proposed water resources expansion plan.</p> <p>I am disappointed that you have not given more priority to using the Cotswold Canal as part of your plan to augment water supply in the Southeast. -Using the canal would contribute a sizable increase in the available water in the Thames catchment, and could draw this water from the Severn at the tide point, where the water is about to be lost to the sea.</p> <p>It seems to me that the study staff are not familiar with how important the Cotswold Canal will be as a future amenity, and how its restoration will reflect beneficially on the entire water resource expansion effort. The Cotswold Canal Transfer will not, on its own, be sufficient to meet the anticipated demand, and I would urge more evaluation of the following:</p> <p>- - - - Use of the Cotswold Water Park to absorb a measure of winter rains, and release same during the summer. -even a metre of fluctuation would provide a massive increase in the Thames water supply. (and be far less costly and destructive than the Mega reservoir mistakenly included in the Plan)</p> <p>- - - - Maximize low impact abstraction by drawing water as far down the river as possible (ie before it gets salty) -This could apply on the Severn, Thames, S</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>rivers, and maybe the Wye.</p> <p>And let's prioritize these augmentation projects so that the best ones are done first (eg Cotswold Canal), and the less effective follow. -And hopefully there will not be a need for a costly new reservoir to destroy all that Oxfordshire farmland at all.</p>	<p>preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3729	<p>Long range plans are always at risk of becoming outmoded by evolving events, such as changing growth projections over the next 40 years, the reality of climate change, particularly increased rainfall, and the expectation that major infrastructure investments should also include broader public benefits.</p> <p>To summarize: Long range plans are at risk of becoming outmoded by evolving events. Future growth and climate change could well upend current projections.</p>	<p>We agree that changing events results in changing projections over time. This is why through our adaptive planning approach we have produced forecasts which cover a wide range of potential futures. This allows us to be confident that unforeseen changes in the futures will remain within the range of scenarios we have considered.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
3729	<p>The current plan appears to reflect a lack of imagination that has typically been associated with single purpose bureaucracies, and is out of keeping with broader public priorities.</p>	<p>Thank you for your response. The National framework for water resources' sets out how water companies need to plan future water supplies. It sets out that water companies should work together in regional groups to plan for our future water needs while protecting the environment. Following this guidance, we have worked with five other water companies in WRSE to develop a plan for the whole of the South East region. We consider that we have undertaken an inclusive and robust engagement and consultation process. Throughout the preparation of the draft SE regional plan, and our draft WRMP, we have actively engaged with a wide range of stakeholders to enable them to contribute to our approach, technical work and decision-making, and input to the preparation of the draft plans. This engagement has included presentations to parish councils and local communities in the localities of proposed new water resources infrastructure.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
3729	<p>Use Pricing, preferably variable pricing, as a means to better match water demand to water supply. This is now being used in traffic engineering to match traffic demand to roadway capacity</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	
3730	<p>You are now saying you need to invest to prevent drought....what a disconnect there is there! You don't appear to have made sensible long term investments for either too much or too little rain.</p>	<p>Investment to mitigate the risk of flooding and drought risk is distinct and quite separate, with floods and droughts posing very different problems</p>	<p>No changes - our plan appropriately considered the factors which we need to consider when ensuring resilient supplies for the future</p>
3730	<p>TW's failure to take the environmental impact of its actions seriously over the past decades and to properly invest in environmentally safe and sustainable water resourcing mean that there is a significant level of distrust in your plans. bearing in mind that you have been sending untreated sewage into it for years (and in increasing amounts) without investing to improve the situation</p> <p>Environmental impact: your report does very little to assuage concerns around TW's approach to the environmental impact of its plans. What does "we have chosen to aim for the highest level of environmental improvements" even mean - what defines an 'environmental improvement'?you are currently dumping huge amounts of sewage into the river in which I swim because you haven't invested sufficiently in dealing with high levels of rain.</p> <p>It isn't enough to say you will 'track and monitor' and 'adapt our approach' - we know from bitter experience that you will likely ignore what becomes obvious until you are forced to take action – by which time the health and environmental damage may well be irretrievable. There seems to be very little incentive for you to do the right thing given any sanctions available do not appear to be a sufficient deterrent.</p>	<p>Thank you for your response. We recognise the requirement to improve our track record compared to past performance in some areas. This is why we have announced our turnaround plan, which will address issues related to waste discharges. Our plans for waste are covered in our DWMP whereas our WRMP focuses on water resources issues.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent.</p> <p>Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p> <p>The National Framework for Water Resources and Water Resource Planning Guidelines set out the approach that should be taken in defining a regional environmental destination, which is what has been included in both the WRSE draft plan and our draft plan.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>



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3730	<p>Thanks for consulting. How you are going to show that you are going to take our comments (which take time and effort) very seriously and act on them in a meaningful way in relation to the plan?</p>	<p>We have given full and detailed consideration to all the representations received to the public consultation and set out how we have considered and changed our draft WRMP. We have also taken account of the feedback on specific schemes and the aspects of concern and have taken these into account in further studies. We will continue to work openly and transparently and engage with stakeholders and local communities as we progress studies and refine our long term plans for water supply.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3730	<p>At the absolute forefront of your plans should be to do better with the way you treat the River Thames. you have not been using profits to invest in infrastructure for too long and now you appear to be looking for the cheapest solution? TW currently use the Thames as a dumping ground as well as a resource, for what appears to be profit/gain. I agree that you need to plan for future water usage...I absolutely disagree that you should be planning for the cheapest way of doing it. Water and environmental impact are both critical...why not be a world leader rather than doing the least you can as cheaply as possible...just because our government doesn't hold you properly to account doesn't mean you should do the bare minimum for the sake of your shareholders. Thames Water and DEFRA.....please,please, please show some genuine leadership by spending the money required to do this properly and safely for future generations , with all river users, human and animal/bird at the absolute forefront of the plans rather than the pockets of shareholders.</p>	<p>We note your comments and concerns with regard to ensuring we respect and protect the environment. Our draft WRMP has been developed to protect and improve the environment and we would not be permitted to progress any measures which deteriorate the environment.</p> <p>We do not consider that we have simply planned on the basis of providing the cheapest solution to the planning problem which we face. We have undertaken a robust Best Value Planning approach which considers carbon emissions, the environment, and resilience into account. However, with concerns over the cost of living at the forefront of people's minds at present, it is also our consideration that cost to our customers should be an important consideration in our planning. It must also be stressed that the cost assessment and cost-minimisation within our programme appraisal is focussed on the costs which our customers will pay, not the costs to Thames Water.</p> <p>Specifically with respect to the proposed Teddington DRA scheme. We are working closely with the Environment Agency, Natural England, and the Drinking Water Inspectorate as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys, focusing on the river and the riverbank. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. Following the assessments so far, we have reduced the scheme size to ensure we protect the environment. We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise, air quality and landscape.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>

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3730	If you tell people that you are going to take huge amounts of water out of the river and replace it with 'treated' sewage- you are not likely to get a favourable response ...DEFRA please start holding TW to account.	Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. The programme of studies includes the assessment of the water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. We will do more detailed assessments, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
3731	Whilst I fully appreciate the need to increase London's water supply for future years, I am concerned that choosing the cheapest option is not the best decision to protect our environment. I therefore urge a change of plan to a solution that benefits the environment, not harm it.	Thank you for your response. In developing the WRMP24 and wider plan for the South East, a fresh and objective look has been taken at the challenges facing the region and how best to solve them, looking beyond the boundaries of individual water companies to identify the options that will provide resilient supplies more efficiently and provide wider benefits. In terms of new infrastructure, water transfer from the River Severn, desalination plants and water recycling are viable potential options which could form part of an overall plan for the south east. For further information on the scheme see our Statement of Response and revised draft WRMP. The selection of options is guided by modelling that considers cost, environment/social and resilience factors.	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.
3731	I attended a Thames Water consultation at Richmond Town Hall on 16th January. The presentation was very professional, but unfortunately, was completely biased on selling the company's proposal to the public. There was no attempt at discussing and informing the public about alternatives, or a discussion about benefits weighed against downsides. As such it was an attempt to only present a positive picture.	We note your comments. The public consultation is on the draft Water Resources Management Plan, and in the draft plan we set out the range of possible options we have considered to address the future water resource challenges and the basis and decision making for our long term plan. This information is included in the draft WRMP, was included on the exhibition panels at the event and representatives of Thames Water's water resources team, who lead the work to develop the draft WRMP, were at the Richmond Town Hall event and would have been happy to discuss the draft WRMP in detail with you. The event was designed to enable open and unbiased conversations with attendees on the draft plan.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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3731	<p>However, there are significant downsides which need addressing. The River Thames, along with most of our waterways, already fails water quality measurements. By extracting large volumes of water, and replacing it with treated water from the Mogden sewage works will only lower the quality of Thames water further, I understand the reintroduced water will raise the temperature of the river. Although the rise in temperature will be small, it will affect the river ecosystem to the detriment of fish and other life.</p> <p>We were told that the reintroduced water would pass legal quality tests. This may be so. However, the Thames team couldn't or wouldn't go into details about the chemical composition of the reintroduced water, i.e. it will not be the same as the extracted water.</p>	<p>We are committed to environmental protection and environmental enhancement. We have been thoroughly investigating the chemical quality of both the River Thames at Teddington and the chemical quality of our treated sewage at Mogden sewage treatment works in order to determine the amount of additional treatment that is appropriate to ensure absolutely no worsening of chemical quality. This is a complex issue and we are sorry that appropriate experts were not available to discuss this with you at the workshop.</p> <p>We note that planned discharges, like this scheme, are not being considered by government regulators as "normal" sewage works discharges. They are being required not only to demonstrate that with designed-in advanced treatment that they will not deteriorate river water quality, but also that they will not jeopardise the river from achieving its target (good) water quality. This is for all chemicals with environmental quality standards to protect wildlife - please see the WFD Directions [https://www.legislation.gov.uk/ukxi/2015/1623/pdfs/ukxi0d_20151623_en_uto.pdf] and the other operational chemicals included in permitting [https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit]. As such the scheme would not reduce water quality. As you note the River Thames fails water quality measurements and this scheme would support overcoming this. We also note that when the scheme is operating, the amount of chemicals discharged from our Mogden sewage treatment works to the tidal Thames, which operates under permit from the Environment Agency, would reduce. This scheme would contribute to the overall reduction of chemicals entering the water environment. From review of the chemical datasets we continue to collect, we are identifying which chemicals need advanced treatment to make them suitable for discharge to the River Thames at Teddington Weir, and by how much. We are currently setting out laboratory tests to determine the most appropriate advanced treatment processes to achieve this.</p> <p>We are working closely with the Environment Agency to ensure this is effective. This will safeguard chemical and ecological quality of the river. If this cannot be demonstrated then the scheme will not go ahead.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>You also note water temperature effects. Our measured datasets, which record hourly, show that the River Thames at Teddington Weir has a different seasonal temperature profile to the treated effluent at Mogden sewage treatment works. We are confident that a scheme will not increase the temperature of the River Thames at Teddington Weir in a way that effects ecology - our assessment to date identifies that at highest river temperatures, operation of the scheme would reduce temperatures slightly, but there are risks of small increases in autumn akin to delaying autumn by a week or so, once every 20 years in drought circumstances. If the risk is too high the scheme will not go ahead. Conversely there will be reductions in water temperatures at Brentford as the warming effect of our current discharge from Mogden sewage treatment works on the tidal river reduces. We are continuing to investigate this and any risks to ecology including fish.</p>	
3732	<p>At a public consultation on 16 January 2023 Thames Water showed plans to remove river water from the Thames and replace it with an equal volume of treated sewage. This would be done in very high volumes at the time of a drought.</p> <p>The attached document shows that during the consultation itself, and for a total of over 20 hours, Thames Water was discharging sewage overflow into the Thames from the notorious Mogden works.</p> <p>We cannot trust Thames Water to operate the existing sewage infrastructure, never mind giving it a licence to pump more waste into the river.</p>	<p>We note your concerns. The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>The Teddington DRA scheme follows the principles of our normal water supply system whereby we take water from the river, treat it to a high standard for our customers to use, and once it has been used we treat the wastewater and discharge it to the river, complying with the environmental permits. upstream of Teddington Weir, numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		thriving. The Environment Agency will regulate the scheme if it is taken forwards.	
3733	Thames should publicly comment on proposed housing developments and these new developments should not be allowed to go forward if there are substantial objections. There should be required rules for water and waste emissions for new developments.	As a business we do not consider it our place to hold views on proposed housing development except where it would have a direct impact on our operations. Even should we have views Section 37 of the Water Industry Act place a general duty that requires that we develop and maintain the system of water supply so that we supplies available to persons demanding them. We therefore need to plan for this irrespective of any view on proposed housing development. Rules for water and waste emissions for new developments are a matter for Government, local authorities and housing developers and should be addressed to them directly.	We have provided information in response to your comments, there are no changes as a result of your representation.
3733	At a high level I would recommend: Thames Water to commit to meeting current and future UK and EU regulations. -They should meet the most strict of the two rules. -Needless to say I don't have any confidence in the regulatory regime in the UK -I would strongly recommend that funding for the Environment Agency be moved from the government to the water companies as a levy. -The EA needs to have independence from the government in terms of staffing and ability to issue fines when appropriate.	We note your concerns. The level of treatment would be defined by the discharge limits set by the Environment Agency. Our current level of treatment aims to ensure we meet the environmental quality standards to protect human health and the environment and provide best value for our customers. The level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Thames Tideway and if a higher level of treatment is required we will build this into our design as it develops.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
3734	I am writing to oppose the scheme to remove water from the Thames and replace it with treated water. This is due to the, seemingly, unknown impact on both wildlife and human users of the river, which is at the heart of the local community.	Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. Thames Water is aware of how well used this stretch of river is and through the consultation process we hope to work closely with river users and community groups to ensure the river continues to be used. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. Following the assessments so far, we have reduced the scheme size to	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.



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		<p>ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. For further information on the scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
3735	<p>I cannot believe that this has even been mooted! Do we not already have enough sewage being discharged (mostly illegally) into the river?</p>	<p>The Teddington Direct River Abstraction (DRA) scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged.</p> <p>This scheme is not related to the discharge of untreated sewage, which is unacceptable. Between 2025 and 2030 we will be investing at least £750m to reduced discharges of untreated sewage to sewers, and over £1bn to improve treatment processes at our sewage treatment works, including £97 million to upgrade Mogden Sewage Treatment Works. The Teddington DRA scheme is unrelated to storm overflows.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3735	<p>My wife and I live on a houseboat in Thistleworth Marine, just downstream from Richmond Lock, and immediately upstream from the Mogden discharge site. Sewage discharges already blight our life; when the tide is right, discharges are clearly apparent, without looking at the river - the smell is unmistakeable. Any</p>	<p>Thank you for taking time to respond to the consultation and for your comments.</p> <p>The Teddington DRA scheme proposes discharging recycled water into the freshwater section of the River Thames upstream of Teddington Weir,</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during</p>



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	<p>further discharges would seriously affect our quality of life, most likely resulting in a semi-permanent pond, not to mention the deleterious effect on our abundant wildlife.</p> <p>In my opinion, the solution is to separate the storm runoff from the sewage system, with the intention of treating both separately, with extreme circumstances allowing the storm water to be discharged into the river pre-treatment (as is the case currently), without the sewage. I quite appreciate that would be an expensive solution, but would solve the problem once and for all.</p>	<p>requiring a greater level of treatment. The level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames, downstream of Teddington Weir. We acknowledge that Mogden STW is one of our works that struggles to treat the required volumes of sewage under rainfall conditions. In order to deal with heavy rainfall at Mogden, we have eight storm tanks at the moment that currently hold about 40 Olympic-sized swimming pools of storm water contaminated with sewage. The new treatment plant at Mogden would not impact existing storm tank capacity. We are proposing modifications to increase its capacity. It is also worth noting that Thames Water is investing to improve Mogden STW to replace and upgrade critical assets, as part of a wider investment of over £1 billion in Thames Water sewage treatment works. The entire programme is aimed to be completed during 2027.</p>	<p>periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
3736	<p>You are clearly NOT choosing to aim for the highest level of environmental improvements.</p> <p>You first suggested the plan in 2019, but it was rejected by the Environment Agency because of the anticipated unacceptable impact on the environment of releasing millions of litres of treated effluent into the river. The effect would be to raise the temperature and salinity of the water and have an adverse impact on its ecology, particularly affecting migratory and indigenous fish.</p> <p>I, my family, REJECT YOUR PROPOSALS. PLEASE DO NOT CONTINUE WITH THIS HARMFUL AND ILLEGAL APPROACH THE CUSTOMERS ARE AGAINST YOUR DRAFT PROPOSALS.</p>	<p>Thank you for your response. We note your concerns, but please note Teddington DRA is a drought scheme and therefore will be used at full capacity infrequently and only in times of drought. Evidence suggests that the Teddington DRA scheme will have no significant impact on the environment. The treated wastewater effluent from Mogden STW would have an extra stage of treatment at the STW, which is required to meet environmental consents to allow the water to be discharged into the non-tidal section of the river ie above Teddington Weir.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this. The scheme will also have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
3736	<p>You company leaks 630m litres a day from its network</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of</p>	<p>Our demand management and leakage reduction proposals have</p>



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		<p>Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next</p>	<p>been extended in our revised draft plan.</p>



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		<p>2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
3736	<p>Reports have come out this week which evidence your intention to draw off tens of millions of litres of water a day from the Thames and replace it with treated effluent from the large Mogden sewage works in west London. and say you are putting forward a "water recycling" plan to cope with shortages resulting from the rising population and predicted droughts caused by climate change over the coming decades.</p> <p>The abstracted river water will be replaced by treated effluent from Mogden, one of the biggest sewage plants in the UK. But technical documents within your OWN resources management plan show there were still environmental concerns with the water reuse proposal.</p> <p>the proposals will have potential to cause increased water temperatures and a change in the salinity of the river. There could be impacts on freshwater and estuarine fish, their migration patterns and the life-cycle of macroinvertebrates – insects in their nymph and larval stages, which are a key indicator of river health.</p> <p>The proposals could also harm other key parts of the river ecosystem and could breach regulations on the chemical status of the river, which measure the levels of pollution in a waterway.</p>	<p>The discharge of recycled water will ensure the volume of water passing from the river to the tidal river is retained - this volume of water is a key issue for the ecology of the river and the movement of fish between the estuary and the river and back. We are committed to environmental protection and environmental enhancement. We have contracted the expert aquatic modellers of HR Wallingford [https://www.hrwallingford.com/] to understand the potential for water temperature and salinity effects of the scheme. We are confident that a scheme will not increase the temperature of the River Thames at Teddington Weir in a way that effects ecology - our assessment to date identifies that at highest river temperatures, operation of the scheme would reduce temperatures slightly, but there are risks of small increases in autumn akin to delaying autumn by a week or so, once every 20 years in drought circumstances. If the risk is too high the scheme will not go ahead. Conversely there will be reductions in water temperatures at Brentford as the warming effect of our current discharge from Mogden sewage treatment works on the tidal river reduces. We are continuing to investigate this. We are confident there will be no risk of changes in salinity in the tidal river or the estuary, including with climate change, and there is no risk of the River Thames at Teddington becoming brackish as a consequence of this scheme.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>English rivers are already suffering from the impact of chemical and biological pollution from treated effluent released by water companies, and runoff from agriculture and roads. No English river is considered to be in a good biological or chemical state.</p>	<p>Regarding chemicals. We note that planned discharges, like this scheme, are not being considered by government regulators as "normal" sewage works discharges. They are being required not only to demonstrate that with designed-in advanced treatment that they will not deteriorate river water quality, but also that they will not jeopardise the river from achieving its target (good) water quality. This is for all chemicals with environmental quality standards to protected wildlife - please see the WFD Directions [https://www.legislation.gov.uk/ukxi/2015/1623/pdfs/ukxi0d_20151623_en_au.pdf] and the other operational chemicals included in permitting [https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit]. As such the scheme would not reduce water quality. As you note the River Thames fails water quality measurements and this scheme would support overcoming this. We also note that when the scheme is operating, the amount of chemicals discharged from our Mogden sewage treatment works to the tidal Thames, which operates under permit from the Environment Agency, would reduce. This scheme would contribute to the overall reduction of chemicals entering the water environment.</p> <p>From review of the chemical datasets we continue to collect, we are identifying which chemicals need advanced treatment to make them suitable for discharge to the River Thames at Teddington Weir, and by how much. We are currently setting out laboratory tests to determine the most appropriate advanced treatment processes to achieve this. We are working closely with the Environment Agency to ensure this is effective. This will safeguard chemical and ecological quality of the river. If this cannot be demonstrated then the scheme will not go ahead.</p>	
3738	<p>I emailed you on 17th January, and have not had even an acknowledgement. I find that sad,, as it shows you do not really care. please do not refer me to endless websites which your marketing department has carefully constructed to gloss over what is actually the reality...</p>	<p>Thank you for your representation to the public consultation on the draft Water Resources Management Plan. We set up an auto-acknowledgement to all submissions to the consultation which you should have received to advise that we had received your representation, this is noted below in italics. We also provided an email address if you wanted to get in touch with specific questions. We have promoted the public consultation widely and will give due consideration to all representations received.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>Auto acknowledgement "<i>Thank you for taking time to provide feedback to the consultation on our draft Water Resources Management Plan 2024 (WRMP24). Your feedback has been recorded. We'll carefully consider all the feedback we receive, and in June we'll publish a report which sets out the changes we've made to our draft plan in response. If you have any questions on water resources or the consultation, please don't hesitate to get in touch at info@thames-wrmp-co.uk.</i>"</p> <p>We've also reached out to you via email on 6 March providing more detail on the Teddington scheme and explain the consultation process.</p>	
3738	<p>I have looked at your consultation document on line. I want to congratulate your Public Relations Team for coming up with something that reads very well and promises great things, while I know, from having lived in this area for 50 years, that Thames water does very little indeed to put things right.</p> <p>Please when answering my email, do not refer me to websites and other PR material. It would be lovely to have an executive answer me.</p>	<p>Thank you for taking the time to participate in the public consultation, and providing feedback. Thames Water is committed to improving its performance and delivering a turnaround plan which will achieve improved levels of service day-by-day for our customers and protect the environment.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3738	<p>Thames Water is paying its shareholders millions and polluting rivers and lakes. This is not a responsible attitude, nor is it caring for the future of the environment.</p> <p>As an economist, I can tell you that such actions are injurious to the long term survival of our country...I feel it is really time that people were put before profit.</p>	<p>We note your comments and concerns. The purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers, whilst protecting the environment. Our draft WRMP includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	
3738	<p>This is to let you know that I am absolutely appalled by the behaviour of Thames Water...The fact that the chief executives were paid £6.1 m last year and yet Thames Water pollutes the Thames and other water sources regularly truly beggars belief. This pollution is public knowledge, in the public domain. How can that be justified? I have written several times to my MP about this matter. If I am permitted to be slightly sarcastic, perhaps earning a bit of the £6.1 million might show willingness to actually address the real problems that were caused by water privatisation. The creation of local monopolies was foreseeable and was foreseen at the time. What is going on at present with the unbelievably destructive pollution of rivers, lakes and the seaside was foreseeable. I am an economist, and I was at the time of privatisation against it, as the very raison d'être of private companies is to maximise profit and disregard the negative externalities caused by the pursuit of pure profit... We see it in climate change, we see it in the slightly more local issue of polluted water sources.</p>	<p>Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3738	<p>And now I believe Thames Water wants to discharge treated sewage water into the Thames at Teddington, my local area of the river, while abstracting water from the Thames . There is no way this can be right.</p>	<p>Thank you for your response to the consultation.</p> <p>The abstraction of water from rivers and aquifers, as well as the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of Teddington Weir numerous water works and sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring that we provide a valuable resource, meet our statutory obligations, and rivers and tributaries keep flowing and wildlife thriving.</p> <p>Water is essential for everyone; we need to take the key decisions now if we are to future proof our water supply. Our WRMP24 proposes investing to give greater protection against a changing climate and more extreme</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		droughts, as well as improving the environment. The SRO schemes such as Teddington DRA are proposed as part of this adaptive plan.	
3738	I am emailing you to suggest that perhaps abstracting up to 75 million litres of water daily from the Thames near Teddington Weir and then replacing this with treated effluent from the Mogden sewage work should not be a viable option for you. This is simply not dealing with the externalities your operations create.	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need.</p> <p>Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. With reference to the externalities of operations, the discharge of untreated sewage is unacceptable, and we are committed to tackling this problem. Between 2025 and 2030 we will be investing at least £750m to reduced discharges of untreated sewage to sewers, and over £1bn to improve treatment processes at our sewage treatment works. We will continue to invest in upgrading the Mogden Sewage Treatment Works site to increase capacity and reduce the number of storm discharges. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
3740	<p>I attended the Thames Water WRMP Consultation on 16/01/23 at Richmond Town Hall. I managed to speak with several TW personnel but could not meet with all disciplines.</p> <p>The term “environmental improvement” appears numerous times in your brochure, we (the public) will be holding you to this aim, even if lacklustre Government departments allow TW to ride roughshod over “regulations”!</p>	We note your feedback. We acknowledge that some aspects of our recent performance have been unacceptable such as sewage spills, and it’s understandable that the public are demanding that we, and other water companies, improve our performance, but we are committed to environmental protection and enhancement.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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3740	<p>This is the right time to revise TW’s contract obligations closing loopholes and stopping illegal discharges into seas and rivers.</p> <p>The Thames Tideway Tunnel will take sewage from 34 OF THE 64 Combined Sewage Overflows (CSO) currently discharging raw sewage into the Thames. These 34 CSO’s are noted most polluting. How polluting are the remaining 30 CSO’s.</p>	<p>As part of the studies to inform the design of the TTT, thirty-six CSOs were identified to discharge flow that could cause a material level of pollution to the tidal River Thames in a typical year and based on the work it was decided that the TTT would intercept and control thirty-four CSOs, the two remaining ones will be dealt with by the Lee tunnel and a project at Wick Lane. The remaining CSOs that you refer to were determined, in conjunction with the EA, to not be polluting enough to incorporate in the TTT.</p> <p>The selection to intercept 34 of the 64 CSO’s was done by the EA. They used three criteria to assess each CSO against. They are:</p> <ul style="list-style-type: none"> • Impact the CSO discharge has on the dissolved oxygen levels in the river. • The Impact of aesthetics (i.e. waste products (that should not be flushed down toilets) that cause a visual litter impact). • The potential human health risk associated with CSO discharges. <p>The assessment was done in 2004 based on the sewer model and historic rainfall incidents. It was refreshed in 2011.</p> <p>Using these criteria each CSO was categorised into one of four categories. They are:</p> <ul style="list-style-type: none"> • Category 1: Discharges that have an adverse environmental effect and occur frequently during periods of rainfall, which cannot be defined as unusually heavy. • Category 2: Discharges that have an adverse environmental effect but only operate infrequently, during periods of heavy rainfall. • Category 3: Discharges that do not have any significant environmental effect. • Category 4: Discharges that occur at a similar frequency to category 1 but have been assessed as not causing a significant adverse environmental impact. <p>The 34 CSO’s you refer to are the Category 1 and 2 CSO’s while the remaining are the Category 3 and 4 CSO’s. Category 1 and 2 has been named the “actively managed CSO’s (directly or indirectly)” while Category 3 and 4 is called “not actively managed but influenced” CSO’s.</p> <p>The design of the tunnel was based on a typical year of rainfall. The tunnel will ensure that all “actively managed” CSO’s will discharge 5 or less time in</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>a typical year and the “not actively managed but influenced” CSO’s will discharge 10 or less times in a typical year. The means that all 64 CSO’s will reduce their discharge from current rates due to the London Tideway Tunnel. National Government has recently released long term requirements for all CSO’s under the “Storm Overflow Discharge Reduction Plan” specifying all CSO discharges to be reduced by 2050. The requirement is for “no ecological harm” which needs to be determined on for each unique location. As a plan needs to be provided to Government in the short term, all sewerage undertakers in England and Wales have used an interim surrogate of “no more than 10 spills per annum” to equate to “no ecological harm”. This will be revised as ecological assessments are completed on the CSO’s. We developed plan to achieve this target for CSO’s which can be found in our Drainage and Wastewater Management Plan (published in May 2023). The 64 CSO’s in your query all meet the “no more than 10 spills per annum” requirement once the London Tideway Tunnel is in operation and are therefore excluded from the DWMP. This may change once ecological harm is determined.</p>	
3740	<p>TW must invest more to reduce leakage from the system. 2050 to reduce by 50% is insulting.</p> <p>We the customers are being charged for this lost resource.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the</p>	



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		<p>comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
3740	<p>Extracting water from upstream of Teddington Lock should only be done in extreme conditions as backup. Due to this part of the Thames being non tidal it relies on rain falling on it's catchment to maintain an operating level, back filling with effluent from Mogden STW sounds like a disaster. Eventually this stretch of water will become stagnant and die. Where is the environmental improvement here.</p> <p>Your proposal to construct a new reservoir is welcomed but we will need many more.</p> <p>Back in the seventies severe droughts, the Government proposed a National water distribution system but this never got off the ground. This surely is the right time to initiate such a system.</p>	<p>The Teddington DRA scheme would be a drought resilience scheme and therefore only operational during periods of prolonged dry weather and when reservoir storage levels and river flows are below a set threshold, typically every other year and during August to November. As part of development of the scheme we have investigated the risks a scheme poses to the environment and for a scheme of the size proposed we predict a low risk of environmental effects. More work is required over the next couple of years to refine the assessments, design and mitigation for the scheme and the outputs of these ongoing studies will be made available and published on our website.</p> <p>As part of the national water grid, We now work regionally, and have regular meetings across the 5 regions our England (and part of Wales) is split up into. This reviews the ability to move water around the country with the support of the regulators, Environment Agency and Ofwat. This is the reason options such as transfers from the river Severn have been considered.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
3741	<p>I wish to strongly object to the proposed 'sewage release' near Teddington. I live less than 100 yards from the river Thames (9 church street, Hampton) and frequently walk along the river path. I would hate the river to be contaminated.</p>	<p>Thank you for your response to the consultation and for making us aware of your concerns. Protecting and enhancing the environment is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>In addition, a Water Quality Assessment has been completed which concluded that the scheme will have a negligible impact on the majority of WFD chemicals, EQSD chemicals and Olfactory water quality. There are some water quality parameters which require further assessment to understand the level of additional treatment that might be required to ensure that the discharge water quality is appropriate.</p> <p>Further assessments on water quality are underway and we will share data on these once we have them. Please rest assured that additional treatment processes will be added as required and we will target particular determinands to meet the EA discharge limits.</p>	
3742	<p>educate people and think of another solution not based on the cheapest rather than damaging the natural biodiversity of the River Thames.</p>	<p>Thank you for your response. We note your concerns, but please note Teddington DRA is a drought scheme and therefore will be used at full capacity infrequently and only in times of drought. Evidence suggests that the Teddington DRA scheme will have no significant impact on the environment. The treated wastewater effluent from Mogden STW would have an extra stage of treatment at the STW, which is required to meet environmental consents to allow the water to be discharged into the non-tidal section of the river ie above Teddington Weir.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this.</p> <p>Evidence suggests that the Teddington DRA scheme will have no significant impact on the environment.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>Teddington DRA is part of a wider long-term programme for balancing supply and demand across the South East of England. The selection of options is guided by modelling that considers cost, environment/social and resilience factors. The need for the Teddington DRA is principally driven by the</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>



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		<p>requirement to improve drought resilience. We are required to have a supply system resilience to a 1:200 drought ASAP and a 1:500 drought by 2040. Teddington DRA is the largest and least impactful option available within a reasonable lead-in time and has strong cost benefit, so is regularly selected by the modelling. We appreciate the concerns of local residents about the option, but current evidence suggests the scheme is feasible. Investigations are ongoing as part of the regulator-led Strategic Regional Options programme. In the revised draft WRMP24 (as in the draft) we have completed several sensitivity tests on alternatives, so stakeholders can see what they are and their impact on best value.</p>	
3742	First, fix the leaks	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly,</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
3742	<p>I am writing to register my strong objections to Thames Water's proposal to abstraction millions of litres of water per day from the Thames at Teddington replacing it with treated sewage water from Mogdan.</p> <p>Thames Water recognises other schemes but proposes this one first as being the cheapest to deliver. This says it all!!!</p> <p>Given the recent track record of Water Companies discharging raw sewage into</p>	<p>Teddington DRA will be required to conform with all environmental legislation as overseen by the EA. Whilst still rigorous, these permitted limits are different and distinct to those covered by The Water Supply Regulations. Furthermore, existing water supply systems that are managed under a Drinking Water Safety Plan (DWSP) and are considered safe, should not be impacted by additional planned discharges in the catchment.</p> <p>Therefore, indirect options for reuse are considered to be a lower risk to</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as</p>



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	rivers and seas I have no confidence in Thames Water’s ability to be transparent about any discharge. Also, the Environment Agency and OFWAT budgets have been cut to a level where again I have no confidence in their ability to monitor any changes to the environment caused by treated sewage water.	drinking water safety, as compared to the option of direct discharge to the TLT.	such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
3743	Following your public consultation in Richmond upon Thames on 16 January, there has been considerable public discussion and disquiet at your plans, as you might well expect from the number of people who tried to speak with you on that afternoon. - Please rest assured that any response you are able to provide will be shared promptly with people in this vicinity, and might shape any response they give to your consultation by 21 March. In the weeks remaining for the public’s responses, I hope that you will arrange further public consultations in this area. -If I may be direct, there’s a lot of interest in this matter, and a material amount of illinformed comment and suspicion. -It would be in everyone’s interest to get the facts straight.	We note your feedback. We recognise there is a lot of interest in the proposed new water abstraction scheme in west London in the area of Richmond and Twickenham. Following the event held in Richmond we organised a follow-up community information event in Twickenham and held a webinar to share clear and correct information on the scheme with the local communities and answer questions. We have also held a river users forum to facilitate more detailed discussion on the scheme and further studies that are planned. We will respond fully to the points raised to this consultation in relation to the scheme and are committed to continue to engage with the local community.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
3743	I attended Thames Water’s public consultation in Richmond on 16 January 2023. Two of the points I made were of sufficient interest that I was explicitly asked to include them in my response to the consultation. Of course, I will do that in due course, but this email is to set out the full details for your consideration.	Thank you for taking the time to participate and provide feedback to the consultation.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
3743	There’s one small point on which you might be able to provide further information, as the impression given during the consultation was inconsistent but it’s of significant concern to people around here. It concerns the visual impact of the proposed extraction point, which will be situated on a scenic part of the towpath, an area frequented by hundreds of people daily. How big will it be? There are rumours it will exceed ten metres in length and be four metres above the water level: are those rumours well-founded?	Thank you for your response to the consultation. As we develop Teddington DRA further we will undertake assessments and build in mitigation to minimise any potential visual effects. The scheme is still at a concept design stage and hence we do not know either the exact location of infrastructure or the exact dimensions. As we develop the design we will ensure the infrastructure is as discrete as possible and has the least effect on people and the environment. Future scheme consultation will seek community views and ideas around landscaping of a scheme. It should be noted that any scheme will need to compile with a range of legislation and best practice, which in some cases will govern the size of some of the development. Importantly, we have opportunities within the design to include planting and landscaping to best reflect the surrounding environment, provide screening and opportunities for environmental and biodiversity net gain.	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.



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3743	<p>First, a point of fact. -The tide in the Thames estuary does not always stop at Teddington weir. -I live on Trowlock Island, several hundred metres upstream of the weir. -A particularly high tide coming up through London will overtop the weir, and I can then see the Thames moving inland for up to maybe an hour or so. -Then it changes direction and accelerates seaward for a similar period before settling down to its usual speed. -This can clearly be seen in the screenshot below, which displays the Environment Agency's measurements of the Thames flow at Kingston Bridge, about two kilometres inland of the weir.</p> <p>The operational significance of this is that it will take the effluent inland past the point of abstraction. -I suggest that Thames Water will wish to monitor this, and cease extraction temporarily while this is happening. -At the Thames Barrier are staff who monitor the tide and the variations which are forecast meteorologically; they would be well placed to warn, at a few hours notice, when extraction should be paused. -These times will be around high spring tides ('spring' in this context is as mariners understand the word -nothing to do with the season between winter and summer). -</p> <p>Second, a suggestion as to precisely where to insert the treated effluent into the Thames. -At the consultation, there were different descriptions of Thames Water's intentions, though each of them suggested it will be from the east/Kingston/Ham Lands side, possibly 150 -200 m above the weir. -That will be unpopular with the swimmers and anglers who use that space. -There's a better place, and an even better place. -The better place would be to locate the outflow at the end of the lock cut: that'll remove quite a few objections from swimmers and anglers. -I suggest that it would be straightforward to arrange it so as not to impede navigation. -</p> <p>The best place of all to locate the outflow would be to move it further out into the river from there: -as can be seen on the Google Map satellite photo attached, there's space between the weir and the piles which guard it. -That space is as long as the weir, and varies in width upwards from a couple of metres to several metres at the Lensbury Club end. -That space is clear of anglers, swimmers and passing craft of all types. -But during this very dry summer, the area did</p>	<p>Thank you for your response to the consultation. We have been open about the significant work that needs to be done in order to improve the ecological health and water quality of our streams and rivers. Protecting and enhancing the environment is central to our Water Resource Management Plan (WRMP). We have already committed to ensuring there is no possibility that the Teddington scheme will introduce raw or treated sewage into the freshwater Thames.</p> <p>We are aware that on occasions there is tidal incursion above Teddington Weir and this will be taken into account as we develop our operational protocol for the scheme. Safeguards would be built into the scheme whereby we would monitor tidal levels downstream of the weirs and stop abstracting when there is a risk of spring tides backflow over the weir and for a period of time after to allow freshwater to flush out the brackish flow. Tidal overtopping of Teddington weir would therefore have no operational impact on the proposed scheme.</p> <p>We are still investigating the exact location for the intake and outfall and undertaking a full options appraisal exploring the engineering, environmental, planning aspects to decide the ideal locations. This work will be shared and we will seek feedback on options through scheme specific consultation in due course and as we progress our design refinement through 2024.</p>	<p>The draft WRMP plan selected Teddington Direct River Abstraction (2030). During the 2022 drought the water available for abstraction from the lower River Thames was less than expected. We are carrying out work with the EA to further investigate the water available in the river and the observed shortfall from the 2022 drought event. For the revised draft WRMP we have chosen to delay the delivery of this option to 2033 to allow for this activity to be undertaken.</p>



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	<p>experience some antisocial behaviour, including a very few adventurous types swimming over to the corner of piles. -That space is much the best in the whole reach to put the outflow, and the effluent could mix quickly with the water cascading over the weir.</p> <p>You may well be aware that the River Thames Scheme (https://www.riverthamesscheme.org.uk/) intends to create five additional gates at Teddington weir in the foreseeable future. -Maybe there's scope for collaboration between your plans and theirs?</p>		
3777	<p>in response to the consultation I would like to add my voice to strongly object to the Teddington Direct River Abstraction scheme.</p>	<p>Thank you for your response to the consultation. Your views have been noted. For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
3797	<p>I would prefer that Thames Water fix their leaks and invest in improving the infrastructure instead of proposing to build an extraction plant and reintroduce treated sewage to the Thames without fully understanding the impact on the environment or the people who use the river.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p>	



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		<p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
3808	<p>My key concern is their plan ignores the 698 MI/d the report says Thames water loses due to leaks. As well as the magnitude of the waste this concerns me because part of the plan is to build a new extraction site at Teddington and remove 75 MI/d from the river Thames. But Thames Water loses nearly 10 times this a day. Surely if the leaks were reduced it would remove the need to extract water at Teddington. Unbelievable the report says their ambition is to only reduce the leakage to 447 MI/d in 2030 which is still more than 5 times the amount they say they need to extract at Teddington in order to meet demand.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
3808	<p>My second main concern is the criteria Thames Water want to use to justify their decision. Their analysis states the decision to select Teddington extraction was because it's the cheapest. But reviewing their analysis I didn't see inclusion of the costs of poor health or the cost to the environment. These impacts can be expressed in monetary terms and when these are factored into the cost analysis I doubt you will reach the conclusion that the Teddington extraction is the cheapest. I'd like to see this cost analysis made public for scrutiny before Thames Water can move ahead with any part of the plan.</p> <p>Finally, there is the direct health and environmental impacts themselves of the proposals. In the report the discussion about the environmental impact was very brief and lacked specific detail and there was no mention of the negative impact on human health of their proposal.</p>	<p>The Teddington DRA scheme has been selected as a best value option through the Water Resource South East regional model. Best value has been determined through the analysis and modelling of cost, resilience, environmental and customer preference metrics. Full details of the methodology used to determine best value can be found on the WRSE website at the following link - https://www.wrse.org.uk/media/3oah3rep/wrse-best-value-planning-method-statement-december-2022.pdf.</p> <p>Thames Water has published on its website the environmental appraisal of the Teddington DRA scheme. Work to date has shown that there maybe some localised negative but largely temporary effects during construction. The risk of significant environmental effects during operation are low and where impacts are predicted mitigation measures are available to reduce the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>The river Thames at Teddington is a site that is intensely used by the public for water sports, including swimming. I saw no mention in the Thames Water plan to improve the quality of the Thames to designated bathing quality. It also doesn't sound like the proposal to replace the extracted water at Teddington with treated effluent is clean enough to not impact either the environment or water sport usage. There is a discussion about comparing Beckton reuse option and the Teddington option and it says the Becton reuse is more expensive because the quality of the water being put in the river is higher than what the Teddington would receive. Until we have more detail and a rationale not to require Thames Water to ensure the Thames is designated bathing quantity at Teddington I don't think the proposal by Thames Water should be allowed to progress.</p>	<p>scale and magnitude. Our environmental impact assessment work is still at an early stage and further work is required over the next couple of years to refine assessments, the design and mitigation measures to ensure we develop a scheme that does not impact people and the environment. These environmental assessments once completed will include assessments of impacts on all water users.</p>	
3844	<p>As a long standing resident of Teddington and an avid kayaker, I am greatly concerned as to why, when the water companies lose extraordinary amounts of water on a daily basis, they cannot rectify and invest in reducing the leaks rather than the 'treated sewage' plan.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Teddington Direct River Abstraction (DRA) The Teddington DRA scheme, about which you have concerns, allows us to capture water resource from Mogden STW that currently flows out to sea in order to increase resilience to drought for our water supplies. This scheme enables us to provide greater resilience to drought earlier than would otherwise be the case. The scheme is flow neutral and at the reduced volume proposed, and does not cause deterioration to water quality and ecology. The treated wastewater effluent taken from Mogden Sewage Treatment Works, would go through an additional stage of treatment (tertiary) to ensure there is no deterioration to the water quality in the river. There are many existing abstraction and discharge points between Egham and Teddington in operation that do not limit the amenity of those who use the river.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>

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3844	<p>I cannot emphasise enough how a short term 'economic' measure will drastically reduce the welfare and goodness of the Thames at Teddington and areas around.</p> <p>We are subject increasingly to polluted rivers affecting humans, wildlife and flora and fauna. The seas are increasingly affected so that pleasures such as swimming, are no longer possible.</p>	<p>Our draft WRMP sets out our vision and plans for the long term and utilises best value modelling undertaken by WRSE to look at which solutions within the south-east of England offer best value to the customer to secure the regions water supplies for the future.</p> <p>Within the south east we face a significant challenge of requiring an extra 1 billion litres of water per day over the next 25 years. Our draft Plan is multi-faceted and includes fixing leaks and decreasing customers demand however, this alone will not solve the future deficit in water across London. Thames Water's proposals include creating new sources of water and will require a number of new schemes including water recycling, increasing storage through a new reservoir, and transferring water from other regions.</p> <p>The Teddington DRA scheme has been selected as a best value option through the Water Resource South East regional model. Best value has been determined through the analysis and modelling of cost, resilience, environmental and customer preference metrics. It is not only a cost based assessment. Full details of the methodology used to determine best value can be found on the WRSE website at the following link - https://www.wrse.org.uk/media/3oah3rep/wrse-best-value-planning-method-statement-december-2022.pdf</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
3845	<p>I am writing to state I fully support the use of the Stroud Water Canal for transporting water from the Rivers Severn to the Thames.</p> <p>Why build a longer pipeline that will cause environmental damage, higher use of energy therefore more carbon into the atmosphere when you have a ready made channel that can do the job required.</p> <p>I understand that one of the reasons for not using the canal is that it does not carry enough water and that you want 500ml/d which the Severn can only have available in high rainy conditions and surely, if the Severn is high, the Thames will be high as well. For all other reports 300ml/d appear to be adequate which the canal route is able to deliver reliably.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>In addition the canal brings a host of environmental and social benefits to a community which a buried pipeline won't. It can also be delivered in a shorter timescale which is surely of paramount importance given the recent hot, dry summer we have and which we are told are going to occur more frequently.</p> <p>I live in Gloucestershire and have family in both Gloucestershire and London and I would like to think that my family in Gloucestershire can enjoy the benefits the canal development will bring and that my family in London will receive water reliably from this county.</p>	<p>used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3847	<p>Secondly, the population forecasts show ranges (as you do with the impact of climate change), but where is the growth is likely to happen? (If the growth includes a higher proportion of older people, for example, their water needs will be different from younger people).The analysis needs to be taken to a finer level and monitored regularly to check where we are.</p> <p>Fourthly by allowing new and existing housing and industrial developments to pave over land, we are making the water runoff into drains problem worse and wasting water in the process.</p>	<p>Our demand forecasting methods include variables to account for differences in water use between adult and child populations. A full description of our demand forecasting method is included within Appendix F - Household Water Demand Forecast. Additionally we continually monitor our water resources plan through an annual process where a full report is produced, reviewed by the EA and published.</p> <p>Water which runs off into our sewer system is returned to the environment after treatment and will remain in the water cycle and therefore is not wasted.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
3847	<p>First, there should be a clearer set of priorities, starting with collecting and managing the ever scarcer water we will have. This means that top priority should be reducing leakage. Losing 24% a year is not nearly good enough given climate change and expected population growth. More ambitious targets are essential, regardless of Government leakage targets.</p> <p>Thirdly, not nearly enough is being done to encourage homes and business to harvest the water they have. What are the potential losses? Couldn't Thames Water lead by offering fixtures for channelling rain water into tanks for garden use for example? What measure are being taken to require washing and</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>washing up manufacturers to design their products to run on lower water requirements?</p>	<p>investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined</p>	



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		<p>scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Grey water reuse and rainwater collection Rainwater harvesting has been considered as a demand reducing measure. We have previously offered water butts for garden usage and continue to promote rainwater capture within our multi-channel customer engagement activity. Scaling up, the difficulty is that retrofitting either rainwater and/or greywater system technologies into existing properties is extremely challenging and the fittings are not readily market available. We believe there are better opportunities to increase water use systems into new developments, particularly large ones, at the design stage. We have recently launched an industry first Environmental Incentive for developers, offering financial incentives to embed water efficiency fittings, water reuse technologies (RWH/GWR) and deliver 'water neutrality' for any new housing development in our supply area. This incentive model is being promoted to developers, planning authorities and regulators. We have also worked closely with Defra and other government areas, on efforts to strengthen future Building Regulations, so that water reuse technologies and requirements become business as usual.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p>	



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		<p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Government-led water use reduction policies In addition to the actions we can take, the government is planning to introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits. Direct incentives are unlikely to be large enough to influence house builders. We are working with several government-led steering groups to scope future mandatory water labelling and strengthen the water efficiency standard of new build properties and tighten water regulations. These standards may see alignment with the proposed mandatory water labelling scheme, and fitting of grey and rainwater harvesting systems become business as usual. Expectations that the government will take future action are included in our forecasts.</p>	
3847	<p>On the large scale measures to deal with water scarcity, I do not think you are being ambitious enough. More needs to be done to explore the possibilities of transferring much greater quantities of water from the Welsh mountains to the South east via giant pipelines linked to new reservoirs (which could be used to provide hydro electric power).</p>	<p>Thank you for your response. We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. WRSE considered over 2,000 options including national and regional water transfers, desalination, recycling treated wastewater, reservoirs and catchment schemes - all are viable, potential options which could form part of an overall plan for the South East. We'll need a combination of measures to address the shortfall. Our draft plan sets out a 2 pronged approach to meet the challenge:</p> <ul style="list-style-type: none"> • Make every drop count - We'll plug around 80% of the shortfall by tackling leaks, we have set a target to halve leakage by 2050, and revised regulatory 	No changes requested.



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		<p>and government guidance since the draft WRMP to work with our customers to reduce usage to 110 l/h/d by the same date, and new targets for non-household customers too, to make every drop count. To assist with these targets we are installing a further 1 million smart water meters in customers' homes.</p> <ul style="list-style-type: none"> Invest in new sources of water - We'll provide the remaining water by building new infrastructure. The draft WRMP plan selected Teddington Direct River Abstraction (2030), SESRO 100Mm3 (2040) and the Severn to Thames Transfer (2050). We set out in the draft WRMP24 Section 11 – The overall best value plan how a new reservoir is a better first option ahead of a transfer from the River Severn. For the revised draft WRMP24 we have further examined the range of possible future scenarios and have considered the wide range of risks that we may encounter in the future and given the range of risks which exist, have selected Teddington Direct River Abstraction in 2033 and SESRO 150Mm3 in 2040 to provide security for the regions supplies. The Severn to Thames Transfer (STT) is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. <p>SESRO would be a new storage reservoir in the Upper Thames catchment, south west of Abingdon in Oxfordshire. The reservoir would be filled with water from the River Thames during periods of high river flow. When river levels drop or demand for water increases, water would be released back into the River Thames for re-abstraction downstream. The STT would transfer water from the North West and Midlands to the South East for use during a drought. This water would come from the River Severn itself, with Severn Trent Water and United Utilities providing additional sources of water if needed. The water would then be moved from the River Severn to the River Thames either by a new pipeline or by a combination of new pipeline and restoring the Cotswold canals. We have considered additional benefits that</p>	



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		<p>may be achieved by operating SESRO and STT in combination and opportunities for renewable energy generation, we will continue to investigate these potential benefits and opportunities as the options are developed further.</p>	
3848	<p>I am writing concerning the current WRSE draft Best Value Plan and would like the following points to be taken into account when revisions of the draft are undertaken:</p> <ol style="list-style-type: none"> 1. The Cotswold Canals SevernThames Transfer (CCSTT) scheme appears likely to start delivering water transfer earlier than the scheme based on the south east strategic reservoir option (SESRO). I understand the reservoir element of the SERSO scheme is expected to be completed in 2040 while the CCSTT has a project timescale of around 12 years, indicating it could be delivered as early as 2036 if the scheme is approved in 2024. 2. There is a significant risk that the reservoir element of SERSO will be severely delayed or never built because of difficulties obtaining the necessary planning consents. I understand that Thames Water has proposed several versions of this scheme over the past 40 years and has failed to gain planning permission for any of them. There is extremely strong local opposition for the current plan, making it likely that Thames Water would find itself in a protracted battle to gain approval for the reservoir (and may even fail entirely to get permission). The team behind the CCSTT scheme can, in contrast, offer strong support from the stakeholders (such as landowners, planning authorities and the local community) who will be affected by the restoration of the canals and the other elements of the CCSTT scheme. The current draft plan does not seem to correctly reflect the role local support will play in the risk profiles of the two projects. 3. The CCSTT scheme offers considerably greater environmental benefits than the SERSO scheme. A range of wildlife is thriving along the lengths of the canal that have already been restored and the CCSTT team is very experienced at delivering nature and environment gains, as these are a key pillar of the canal restoration project. In addition, the CCSTT scheme offers social and health 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>benefits to a wide range of people, including boaters, paddlers, cyclists and walkers. The long, buried pipeline required by the SERSO project offers almost no environmental (or social or health) benefits and may even have a negative impact through its construction. This tilts the balance of Best Value very firmly in the direction of CCSTT scheme on this criterion.</p> <p>4. The draft plan appears to have underestimated the financial value of the restored canal to the local economy and to society by an order of magnitude. Based on figures in the IWA's recent Waterways of Today report, the additional financial value of restoring the canal is likely to be of the order of £800 million over 80 years, rather than the £80 million figure given in the plan. When this correction is made, the difference in cost between the CCSTT scheme and SERSO is more than offset and the CCSTT becomes the Best Value option in terms of financial as well as environmental and social value.</p> <p>Based on these points, I believe the CCSTT scheme is the outright winner in terms of Best Value and I am firmly in favour of it becoming the solution chosen in the final plan.</p>		
3849	<p>I wish to register my support for the Cotswold Canals Severn Thames Transfer (CCSTT) scheme for helping to mitigate the inevitable shortage of water in London and the South East -as against other proposals which have been promulgated.</p> <p>I understand that both the CCSTT and the scheme proposed by Thames Water (TW) involve pipelines, and although I understand that sometimes there is no alternative I believe their use should be minimised. Pipelines are costly to run, and add no benefit to the environment, biodiversity, or Natural Capital. The CCSTT uses the minimum necessary length of pipe. And will use less power than the Deerhurst -SESRO pipeline as it crosses the Cotswolds at a lower height, via the Sapperton Tunnel.</p> <p>I understand that there is much support for the concept of restoring the Thames and Severn Canal and using it to transfer water to the Thames -but cannot see any acknowledgement of this in the plans of Thames Water. To the extent that it seems that TW have underestimated the financial value of using the canal by an</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>order of magnitude. A report by the IWA estimates the additional financial value of the canal scheme, based on drawing from a number of independent studies, to be £800 million -not the £80 million posited by TW.</p> <p>The Thames and Severn canal, the proposed water channel, runs close to the Cotswold Water Park where there are current and future gravel pits -large ones, which can and should be used in parallel with the canal to provide necessary resources to provide mitigation in times of problem -either heavy rainfall (capturing and storing the excess until needed), or some breakdown (providing necessary water to the Thames).</p> <p>Can the statement that the CCSTT scheme is more expensive be justified? Surely not if the shortfall mentioned above is taken into account. But worse - much, much worse -is the discrepancy in the timings. The water shortage crisis is here now, getting worse, and not going away. So why, oh why, is it suggested that the SESRO scheme be adopted -which will not initially supply sufficient water, and will not do so until at least 2040. The pipeline from Deerhurst is not planned to start until after that!!! The canal can be restored before that and supply the necessary volume of water. The CCSTT scheme should be implemented bringing less uncertainty to the water supply, and greater environmental, social and economic benefits.</p> <p>I wish to add my strong support to the CCSTT scheme.</p>	<p>have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3850	<p>The Severn Thames Transfer (STT) appears to be the most effective way of moving water from the west of England but the potential of the Cotswold Canals SevernThames Transfer (CCSTT) to both transfer water and improve local wellbeing, economy and biodiversity (Natural Capital benefit) seems to have been missed and not taken into account in your “best value” calculations. It is likely to be able to provide water more quickly than pipeline construction and certainly more quickly than the proposed massive reservoir in Abingdon. This option seems to have been rejected as “more expensive” than a pipeline without considering the other benefits this could bring, as set out in the 12 benefits identified in the -Inland Waterways Association report “Waterways for Today” (https://waterways.org.uk/campaigns/waterwaysfortoday).</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>As a narrowboat owner and as someone concerned about our environment I would strongly urge you to look again at the Cotswold Canal option and take into account not just water delivery but wider social factors.</p>	<p>ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3850	<p>I feel that some of the assumptions about population change, leakage reduction and climate change may not come true in the timescales you have set out, however I would agree that plans and investment are needed for additional water supplies particularly in the light of the “dry summer” of 2022 and the increasing likelihood of further droughts in the future.</p>	<p>Thank you for your balanced comments.</p> <p>The Water Resources Planning Guideline requires that we consider a population growth forecast which is based on local authority plans. An expert consultancy has produced such a forecast on our behalf, alongside many others. While our preferred programme is based on a local authority plan-based demand forecast, we have also adopted an adaptive planning approach whereby we have considered a demand forecast based on ONS projections.</p> <p>We have considered a wide range of climate change scenarios in producing our WRMP, using data from the UKCP18 projections and adopting methods for assessment aligned with the Water Resources Planning Guideline supplementary guidance on the subject. Our 'high', 'medium', and 'low' scenarios of climate change represent approximately 75th, 50th and 25th percentile forecasts for climate change impacts that we may see, and all three are considered within our adaptive plan.</p>	<p>No changes - our consideration is that our approaches are robust</p>



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		We feel that our leakage reduction plan is ambitious but deliverable. Our plan involves hitting the 50% leakage reduction 2050 target set by government.	
3850	Having looked at the plan in some detail I am still unsure about the ways in which “best value” are calculated and the weighting given to each of the criteria. I would suggest environmental and bio-diversity criteria should be enhanced particularly in relation to the UK Biodiversity Action Plan and Nature Positive 2030.	Thank you for your response. The definitions and methodologies for Best Value Planning were developed and consulted upon at regional level. We have summarised the process in Section 10 of the WRMP and there is an extensive library with more detail available on the WRSE website. No weighting is applied to the metrics in the BVP analysis. We appreciate different stakeholders will have different views on the priorities, so we have chosen to present the results without weighting and describe narratively how they have informed our decisions on the overall BVP.	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.
3851	<p>I am a member of The Cotswold Canals Trust which has assembled a group with impressive knowledge and experience to work assiduously on this solution. -I join them in believing the Cotswold Canals SevernThames Transfer is also the best option -one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.</p> <p>This proposal could see up to 300 million litres of water per day being transferred from the River Severn to the River Thames via the canal. The scheme has huge advantages over more traditional solutions like reservoirs and pipelines. The three principal ones are:</p> <ol style="list-style-type: none"> 1. no loss of countryside 2. less need to keep taking water from the ground in the South East 3. best value option now and for the long term <p>It is certainly the most promising long term solution to delivering muchneeded water to southeast England.</p> <p>I sincerely hope you will consider it.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3851	<p>An alliance of the six water companies that supply drinking water across London and the South East England, have submitted draft proposals for addressing the region's vulnerability to serious water shortages. Sadly, the sustainable Cotswold Canals Severn-Thames Transfer proposal is not included.</p>	<p>Thank you for your response. The National framework for water resources' sets out how water companies need to plan future water supplies. It sets out that water companies should work together in regional groups to plan for our future water needs while protecting the environment. Following this guidance, we have worked with five other water companies in WRSE to develop a plan for the whole of the South East region. We have completed the required assessments to understand the environmental impacts of our water resource schemes, in line with the Environment Agency's guidelines. We consider that the schemes we have included in our plan are environmentally resilient and appropriate to include in our viable options list. The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>	<p>Since our draft WRMP further guidance has been received from the Environment Agency, Ofwat and Defra that sets a clear policy pathway to 110 l/h/d by 2050, and 122 l/h/d by 2037/38, and new targets for NHH too. We will aim to achieve these new household and non-household targets in our revised draft plan through some improvement in our reductions and further government led reductions. We made it clear in our draft WRMP that further customer reductions were challenging from the analysis carried out to date.</p> <p>The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target</p>



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			not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.
3852	<ul style="list-style-type: none"> The WRMP shows value criteria and objectives for a 'Best Value Plan', however there are no definitions of the criteria and unclear assessment metrics for "best value" <p>The TW decisions should be challenged because of lack of consideration of the environmental and social cost within some proposals.</p>	<p>Thank you for your interest in this topic. The metrics against each of the value criteria are set out in Section 10 of the WRMP Main Report. Further information is provided in the Regional Plan (WRSE) Best Value Planning Method Statement.</p> <p>The environmental metrics we use contain a mix of costed (Natural Capital, Carbon) and qualitative (SEA benefit and disbenefit) metrics.</p>	The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.
3852	The company's two stars out of four rating by the Environment Agency for its performance in 2021 and it's a "red" rating for 12 serious pollution incidents out of a total of 271 during the year, plus it's multiple fines for bad practice gives me no faith in the Company's assurances that usage not be increased and will be according to at the standards set by the EA, that there will be monitoring and control mechanisms, and over the very large number of other concerns raised about the Teddington proposal	<p>Thank you for your response. We recognise the requirement to improve our track record compared to past performance in some areas. This is why we have announced our turnaround plan, which will address issues related to waste discharges. Our plans for waste are covered in our DWMP whereas our WRMP focuses on water resources issues.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent.</p> <p>Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p> <p>Regarding Teddington, the scheme is at a conceptual design stage as such the precise locations have not been confirmed. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time. We would work with local partners to ensure</p>	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.



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		the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.	
3852	<p>I wish to register my dissatisfaction with the consultation process:</p> <ul style="list-style-type: none"> • short/insufficient notice of the only initially proposed day of consultation • extra day and webinar only because of community protest • there are question on 27th Feb webinar yet to be answered – communities cannot wait for the answers before making their response • too many of the communities’ challenges and questions in relation to the Teddington proposal were met with the response “it is too early to say”; “the proposal is still at the conceptual stage”; “we need more data”; ‘we haven’t done that yet” • research on water quality implications has not been undertaken/completed as part of the process • too many key issues regarding the proposal are still to be decided <p>Insufficient information/data has been collected and provided for an informed consultation response; the process is therefore inadequate and thus cannot be considered as proper.</p> <p>There appears to be lack of full transparency at the earliest stages of the proposal and the original unwillingness to consult, as evidenced by the provision of only one planned consultation event; this is extremely concerning.</p> <p>In Summary: I wish to record that I believe</p> <ul style="list-style-type: none"> • the consultation process has not been proper • insufficient information and data have been provided for a considered response • the information given has not been transparent • it has not increased confidence in the company’s poor reputation 	<p>We note your feedback in relation to the public consultation on our draft Water Resources Management Plan (WRMP). Our approach to the consultation was designed to reflect the strategic nature of the draft WRMP and the purpose of the consultation, which is to seek feedback on our proposed water resources strategy, not on the detail of individual projects. We recognise there is a lot of interest in the proposed scheme near Teddington and frustration that at this stage we could not fully answer all the questions that were raised, as the work completed to date on the scheme has been to determine the feasibility and conceptual design of the scheme. If the scheme is included in the final WRMP it will then progress through planning and there will be multiple opportunities for scheme-specific engagement and consultation with local communities. We would like to reassure you that we are committed to work openly and transparently with all stakeholders, and community engagement and consultation is an important part of this. We have recently appointed a dedicated engagement manager for the Teddington DRA scheme which will help to ensure we engage effectively with the local community going forwards.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3852	<ul style="list-style-type: none"> • TW’s way of dealing with the challenge of new water supply does not seem to reflect the stated criteria and objectives, such as they are, and seems to be financially driven 	<p>Thank you for your representation to the consultation and we note your dissatisfaction with Thames Water and the proposed Teddington Direct River Abstraction Scheme,</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<ul style="list-style-type: none"> there is inappropriate overweighting to supply solutions in choice of strategic options and the choices seem financially driven <p>Small supply infrastructure proposals, to satisfy financially driven objectives, should not be put into effect until several actions, that could prevent the need have been resourced, promoted and had time to be evaluate.</p> <p>In summary: I believe that TW has been widely reported as a company which repeatedly puts shareholder returns before the interests of customers, communities and the environment; this scheme seems to follow this pattern. The Teddington Direct River Abstraction Proposal (TDRAP) seems to be based on MONEY SAVING and TURNAROUND TIME with INCOMPLETE and DISTORTED INFORMATION and LITTLE REGARD for the RIVER, it's ENVIRONMENT and the LOCAL COMMUNITY</p>	<p>We have a statutory duty to prepare a WRMP to ensure we can continue to provide a secure and sustainable water supply. We engaged with regulators, stakeholders and our customers throughout the development of the draft plan and have ensured the plan complies with legal requirements and the regulatory guidelines. We appreciate that some consultees do not like aspects of our draft plan but we do need to progress measures to ensure we can continue to provide a secure water supply for the next 50 years.</p> <p>Our plan includes measures to make the most effective use of available water resources including smart water metering and tackling leakage, as well as developing new sources of water. The decision making takes account of cost, but also a range of other factors including carbon, the environmental impact and resilience to ensure our plan is best value and fit for purpose.</p> <p>The Teddington Direct River Abstraction (DRA) scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged. Protecting and enhancing the river environment and ecology is central to our work to develop Teddington DRA. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it.</p> <p>Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the</p>	



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		<p>Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	
3852	<p>The choice to build infrastructure to supply, rather than deal with demand or efficient distribution, suggests the wrong weighting has been applied.</p> <ul style="list-style-type: none"> • Tackling leaks, by putting extra resources into this work, could negate the need for small scale new water projects • Concerted actions to lower demand and empower water saving (meters and education) and so reduce the amount of new water necessary should precede the implementation of shortterm infrastructure measures to meet shortfall <p>Alternative new water sources with less negative environmental impact and more supply potential should take precedent over 'quick fix' proposals.</p> <ul style="list-style-type: none"> • targets for reduction in demand and supply systems leakages should be more ambitious and should precede the implementation of shortterm infrastructure measures to meet shortfall 	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government</p>	



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		<p>policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial</p>	



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		<p>customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%.</p> <p>Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Water source and storage options We have assessed a number of new water sources and storage solutions for our current WRMP. We have put forward what we consider to be the best plan based on a best value balance of cost, environment and resilience. We have used adaptive planning to make sure that the plan we have selected is sufficient for a wide range of futures. We will continue to monitor the situation and will react to changes in our forecasts to ensure supply.</p>	
3852	<p>I wish to register my dissatisfaction with the strategic resource option choices in the Thames Water Resource Management Plan 2024 (WRMP). There are better new water sources than those being proposed -</p> <ul style="list-style-type: none"> • with greater volume potential and existing infrastructure e.g desalination plants which should be pursued urgently before small supply infrastructure proposals. • which respect the environment - capture of rainfall is preferable to using treated effluent in rivers as part of an abstraction proposal <p>I wish to STRONGLY OPPOSE the Teddington Direct River Extraction proposal; Choice of TDRA is inappropriate because:</p> <ul style="list-style-type: none"> • There are alternative processes for new water, and other locations which could be less invasive and provide greater quantities e.g Beckton Desalination, Mogden/Walton scheme • Teddington has been chosen on cost and turnaround time without any evaluation of the environmental and social costs (a point accepted by TW representatives) 	<p>Thank you for your response to the consultation and for raising your concerns, which are noted.</p> <p>Work to date on all water recycling schemes has been based around the expectations and objectives set by RAPID and has focussed on preparing a concept design for schemes and undertaking an environmental appraisal to understand potential environmental risk. This level of information has allowed Thames Water to demonstrate that the Teddington DRA scheme is a viable and feasible scheme for providing a new source of raw water and therefore appropriate to be included within its latest Water Resources Management Plan (WRMP). Once the WRMP is finalised the scheme can progress through the planning process whereby Thames Water will seek a Scoping Opinion from local authorities and complete a full Environmental Impact Assessment (EIA) alongside holding dedicated scheme consultation prior to submitting a planning application in several years time.</p> <p>We will work closely with local planning authorities as we develop the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<ul style="list-style-type: none"> • “There are other schemes that we could deliver within eight years, such as a water recycling scheme in Beckton, East London, but these are more expensive” • “Teddington appears to be best value with quickest turn around” <p>Choice of Teddington as a Location for TDRA is inappropriate because The TDRA would NEGATIVELY AFFECT the river, the river bank, aquatic life, wildlife, and the extensive recreational users of the stretch of the river. Proposed Method would have a negative environment impact on the river environment and its users with potential greater negative impact.</p> <ul style="list-style-type: none"> • There is recorded research that shows irreparable changes in fish because of pollutants as a result of the outfall of treated effluent. • Outfall of treated effluent into a low flow, warmer water environment has unquantified and unknown impact on the river environment, the aquatic life and the human users of the river, with of potential significant health risk <p>The latest published information on water quality is a short appendix in TW's WRMP Gate 2 submission and shows: a) since Gate 1 the risk level across some basic water quality measure has increased b) additional new risks have been identified</p> <ul style="list-style-type: none"> • TW assessments have concentrated on traditional inorganic chemicals without mention of newer pollutants - residual hormones, antibiotics and chemicals (PFAs). • There appears to be no or low appreciation or modelling of some key river flow dynamics which are well known to local residents. e.g the occurrence of "back flow" of water above the weir at high tides, reversing flow well upstream and beyond Trowlock Island. <p>This flow would mean that the outfall would be pushed upstream- be through both outfall and abstraction areas, and thus pose a significant risk to the area heavily used by swimmers and all the other river users within the proposal area.</p> <p>Teddington has been chosen without knowledge of the locality, and without any environment and social impact assessment.</p> <p>USAGE:</p>	<p>scheme and we are in the process of setting up Planning Performance Agreements with each local authority that the scheme interacts with to allow for pre-planning advice.</p> <p>The Teddington DRA scheme has been selected as a best value option through the Water Resource South East regional model. Best value has been determined through the analysis and modelling of cost, resilience, environmental and customer preference metrics. Full details of the methodology used to determine best value can be found on the WRSE website at the following link - https://www.wrse.org.uk/media/3oah3rep/wrse-best-value-planning-method-statement-december-2022.pdf</p> <p>We appreciate the level of use of the River Thames around the Teddington area by recreational users. This recreational value and the potential risks of a DRA scheme to that value are being assessed as a dedicated topic in our assessments in 2023 and 2024. From our prior assessments (i.e. to end of 2022) which have relevance to recreational usage, we currently assess that:</p> <p>The discharge of advanced treated effluent will ensure the volume of water passing from the river to the tidal river is retained - this volume of water is a key issue for the ecology of the river and the movement of fish between the estuary and the river and back. Around the discharge and abstraction location above Teddington Weir, we are committed to ensuring there is no change in the water level or river currents from operation of the scheme. This is to ensure no effect on river users or river ecology, in particular fisheries. As stated above, our water quality assessment work identify necessary treatment which will safeguard the ecological quality of the river. If this cannot be demonstrated then the scheme will not go ahead. All of these issues will be assessed in greater detail through 2023-2024, including potential impacts upon recreational users.</p> <p>As you state, The Teddington DRA scheme is a drought resilience scheme, and it would only be fully operational during drought periods, to help maintain water supplies – typically during late summer through to late autumn on an</p>	



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	<ul style="list-style-type: none"> Thames Water representatives were totally unaware of the WIDE AND EXTENSIVE USE of this stretch for recreational river pursuits; this is very disturbing. <p>As the first non-tidal stretch of the Thames, throughout the year this area is used extensively, by several clubs for training - rowing including those of local schools, , sailing, canoeists and swimmers, it is further used by paddleboarders and anglers and is The Lensbury Club water sports area.</p> <p>In the summer, the time when the proposal would most probably be in use and the river levels low,, there is a significant rise in river swimming. Because of the advent of inflatable crafts and boards there is also a very large increase in recreational river usage with small crafts. The Kingston Maritime Volunteer Service group felt it necessary to have a weekend patrol boat in summer months to advise river users of good/safe practice for this stretch.</p> <p>The Swimming area of the reach should be protected for use by the 1,000 members of the local area associations. It is planned that the area will be designated as having Bathing Water Status</p> <ul style="list-style-type: none"> There has been no TDRA environmental social impact assessment: therefore the usage has clearly not been a determinant or a consideration in the decision to choose this location; this unacceptable when the proposal has progressed to the current stage and is seen as the preferred option. <p>ENVIRONMENT:</p> <ul style="list-style-type: none"> In the choice of this location the proposal has not taken into account the intrusion the proposed plant and processes would have into this area which is which is designated as part of the North Riverside Conservation Area and adjacent to the Thames Path. The riverbank and open space of the adjoining Ham Field are extensively enjoyed for leisure time having been “reclaimed” through community pressure from the intrusive and anti-social occupation by illegal mooring and “slum boat” activities the plant and process , building and noise, would pose risks to the area’s woodland and extensive and varied wildlife . <p>TDRA OPERATIONAL RISK: RISK OF FURTHER NEGATIVE EFFECTS</p>	<p>intermittent basis. There would be strict rules guiding when and how we could use the scheme and we would need agreement from the Environment Agency. The concept design reports and presentations have consistently described the need that in order to keep the equipment and pipeline in good working condition, we would need to run the system at a low-volume – known as a “sweetening flow” -during normal conditions so that the scheme is ready to be used when it is needed. The actual operation and timing and location of the discharge of the sweetening flow is still be decided, but our modelling has shown that the level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames, downstream of Teddington.</p> <p>The Teddington DRA scheme would have no direct connection to the storm overflow at Mogden STW. The new treatment facility would have real time monitoring at a number of points for required WQ parameters and will initiate an auto shutdown of flow in the event of a failure in water quality meeting set thresholds. Any failure would trigger an automatic ‘fail safe’ via a run-to-waste back to Mogden STW. There is no risk for untreated sewage, storm overflow or even treated effluent to be released at Teddington.</p> <p>We are working closely with the Environment Agency, Natural England and the Drinking Water Inspectorate to understand the existing water quality of the River Thames. We currently sample monthly for over 350 different chemicals so that we are able to fully assess the proposed discharge against current legislation and also existing water quality chemicals that includes PFAS and other ‘forever chemicals’. Work will continue in this area to build one of the most comprehensive water quality datasets for any stretch of the Thames that will allow full assessment in due course including assessment of in-combination effects with other schemes.</p>	



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	<ul style="list-style-type: none"> Detail on exactly how the extraction process will work with the return of treated effluent is not being presented with any clarity or consistency at first consultation when I asked about the proposals usage, I was informed that the scheme would only be used “once every 2 to 3 years and then only probably between August and November”; there was no mention of usage for a “sweetening flow” which seems will be operated at 25% capacity at all other times (found in the strategic resource options) <p>Whilst I understand and accept “concept stage” I feel that there has not been transparency by Thames Water even with the information they have and chosen to present.</p> <p>POTENTIAL FOR GREATER ENVIRONMENTAL/RIVER CONTAMINATION: Should the piping and infrastructure be placed by the Thames at Teddington there will be potential for greater contamination:</p> <ul style="list-style-type: none"> through risk of treatment plant SYSTEM FAILURE causing sewage leakage into the river SEWAGE OVERFLOW/DUMPS into the river - in times of severe rain TW dumps sewage into rivers – can the outfall be used for such practice??? <p>I believe the choice of proposals is not based on full and proper consideration, but on cost/turnaround time.</p> <p>In Summary: I wish to record that I believe</p> <ul style="list-style-type: none"> with no environmental and social assessment, TDRA is chosen on incomplete and distorted information which is unacceptable and unprofessional there is a TW total lack of appreciation of the wide and extensive recreational usage of this stretch of the river and the level and vulnerability of in-water recreation too many health risks exist or are unknown in returned treated effluent water to rivers there would be negative effects on the local woodland and wildlife with the proposed abstraction opposite the Broom Water Association inlet and predictions of flow changes there could be risks to wildlife and silting within a Richmond Borough conservation area 		



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	<p>There would be GENERAL INCREASED RISK for water users because of RIVER CONTAMINATION through</p> <ul style="list-style-type: none"> • hormones and chemicals in treated effluent put into rivers - recorded research shows irreparable damage to fish life • TW has no mention of analysis for these, PFAs, microplastics or pathogens for aquatic life or humans. There is no comprehensive regulatory frame work for these pollutants <p>And potential for GREATER CONTAMINATION through</p> <ul style="list-style-type: none"> • risk of treatment plant SYSTEM FAILURE causing sewage leakage into the river and • the infrastructure being use as a “SAFETY VALVE” to release sewage at times of severe rain and system overload • INCREASED USAGE BEYOND PUBLISHED LEVEL increasing the social and environmental harm 		
3860	<p>SUPPORT FOR THE SUSTAINABLE COTSWOLD CANALS SEVERN THAMES WATER TRANSFER WITH SOCIAL AND ECONOMIC BENEFITS</p> <p>I would like to air my views on the proposed scheme “draft Best Value Plan” as published on 14 Nov 2022, for the transfer of water from the West of England to the South West that is being proposed under WRSE and your own DRWMP that completely fails to show any benefits to the environment and has not taken into consideration the need for 10% contract weighting under Govt policy to include both social and economic benefits. -The proposed scheme is in highly simplistic terms to bury pipes and build a reservoir (which Thames have unsuccessfully attempted to do for a number of years) with none of the benefits that the use of the STT will realise. -I am aware that over 25% of the responses to the Emerging Plan – 1100 in total – 300 0were pressing for the canal scheme to be utilised.</p> <p>It is clear that there is a need for water to be transferred, or for there to be built, at huge expense and needing large amounts of energy to run – desalination plants on the East Coast and a wastewater treatment plant at Deerhurst. -The former of which would have a highly negative impact through the brining of water they output. -Desalination also produces about 1.5 to 1.7 litres of salty brine waste per litre of freshwater. When released back into the sea, this can</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>increase the local salt concentration, potentially harming marine life, especially creatures found near the seabed, this is well recorded globally. -In addition to the harm to the environment from the release of brine, there is the clear risk in an increased fossil fuel dependence, increased greenhouse gas emissions, and exacerbation of climate change if renewable energy sources are not used for freshwater production by desalination and wastewater reclamation. - Energy which this country simply does not have and energy will remain short in energy production for many years to come – has this been calculated for the use of energy to run these expensive plants?</p> <p>The canal restoration would bring multiple benefits, namely social, environmental and economic once restored, along with the ability to transfer water far more quickly than a reservoir or the construction of pipes and plant.</p> <p>The restored sections of canals throughout the UK have seen a resurgence in their use, both by those using the waterways (transportation and living) or enjoying the massive increase in biodiversity along its banks and within its waters. -Birdwatchers, ramblers and anglers to name a few. -What possible extra social and environmental benefits, as required by Government, can be derived from wastewater reclamation, desalination (both requiring large plants as blots on our landscape and using large amounts of energy – a commodity in which this country has a shortfall as stated) and a buried pipeline, that until finished will be a blight on the landscape. It can be argued that this would be short term only for employment in the construction only and exceptionally low in terms of employment once constructed – modern plants needing fewer and fewer onsite personnel due to atomisation.</p> <p>The Inland Waterways for Today states that there are 12 benefits to the ongoing maintenance and regeneration of our inland waterways – your scheme does not address or add to any of these in anyway whatsoever but simply plans to move water from A to B in a way in which you understand and feel -comfortable with. - These 12 clear benefits are stated below – all of which meet the governments desire for all contracts to gain 10% social and economic benefit</p>	<p>(PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>Economic</p> <ul style="list-style-type: none"> · - - - - Contributing to the country’s economic recovery · - - - - Increased spend in local communities · - - - - Savings to the NHS and social care budgets <p>Natural & Built Environment</p> <ul style="list-style-type: none"> · - - - - Protecting and improving the natural environment · - - - - Saving waterways heritage for future generations · - - - - Planning for resilience and climate change <p>Local Communities</p> <ul style="list-style-type: none"> · - - - - Connecting communities · - - - - Opportunities for education and young people · - - - - Opportunities for jobs, training and apprenticeships <p>Improving People’s Lives</p> <ul style="list-style-type: none"> · - - - - Improved physical health · - - - - Better mental health and wellbeing · - - - - Creating better places to live 		



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	<p>All the above arguments are well argued, but totally discounted by you, at the following link –</p> <p>https://waterways.org.uk/campaigns/waterwaysfortoday</p> <p>I would argue that none of these benefits can be gained from your current scheme which has discounted a restored link between the Severn and Thames of a canal link. -That as water companies you have simply devolved to the answer of being pipes and not thought outside of this where the canal could easily deliver, in very short term for the life of this project 300MI/d per day. -Your scheme requires 500MI/d, but this is would only be available when there is enough water in the Severn – thus you would be simply robbing Peter to Pay Paul, and speculating future weather patterns in areas where this is problematic currently.</p> <p>The STT scheme would also deliver its water far more quickly than the proposed, and very controversial Abingdon Reservoir – with a start to build in 2025 and a lead time of c15 years – if all goes to plan and IF permission is granted – this would also only see a 185MI/d output – far less than the quicker STT scheme could realise, again, few of the above 12 benefits above would be forthcoming from a reservoir – which would no doubt be sealed off from public use due to “deep water”.</p> <p>Your plans have, thus far, discounted the STT as too costly, estimating that only £80m would be realised in real economic terms -over 80 years, however, using the calculations in the Inland Waterways for Today, it is believed that you have massively understated this by some £720M, this would in fact make the STT and restoration of the canals the more economic scheme alone, without the added and required social and economic advantages to a working and restored waterways link between the Severn and the Thames.</p> <p>I would therefore urge that you reconsider the STT option in light of the above and the benefits that restoration of our national heritage brings – in that –</p>		



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	<p>The Cotswold Canals SevernThames Transfer is the best value strategic water transfer option.</p> <p>The better value The Cotswold Canals SevernThames Transfer should be implemented before the much longer lead time of the Abingdon Reservoir as it can deliver much more water and much sooner than this controversial scheme</p> <p>at the same time as addressing the water needs of other areas of the country rather than simply pipes and plants that would solely bring short term employment to those employed in their construction with no longterm benefit other than the movement of water from A to B.</p>		
3861	<p>I strongly believe that the SevernThames Transfer would be the best value option -one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society. It could see up to 300 million litres of water per day being transferred from the River Severn to the River Thames. The scheme has huge advantages over more traditional solutions like reservoirs and pipelines. With a restored canal, there is no loss of countryside and less need to keep taking water from the ground in the South East. Please keep me informed of the results of your consultation.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3862	<p>I am concerned that the Cotswold Canals transfer option is being overlooked in favour of other lower cost options that do not offer 'Best Value' when this is supposed to be a vital part of any approved scheme. I base this statement on the following points that I have carefully considered after researching the pros and cons of the various proposals:</p> <p>1) Why is Thames Water pursuing a very controversial reservoir option as a first stage with such a long lead time over the water transfer options. Considering the overwhelming public opposition to the Abingdon reservoir it's construction would likely be delayed considerably (or even prevented) when the Canal transfer option could be delivered with wide public support over a shorter period. The Reservoir would also have much greater adverse environmental impact during its construction.</p> <p>2) The proposed 'buried' pipeline that is currently favoured by Thames Water is longer and goes over higher ground than the Canal option. This will involve more costly pumping energy over its lifetime adding to global warming and the buried pipeline would give no social or environmental benefits whatsoever.</p> <p>3) The canal option could also take advantage of the Gravel extraction currently taking place in the South Cerney area by creating reservoirs from the resulting Gravel Pits. This would add to the water availability during times of drought. It would also give a backup for the short term if there were any trouble with the pumping.</p> <p>4) There is also the possibility of some of the water transferred by a Canal scheme being released into the upper Thames/River Churn catchment during times of drought to prevent them from drying up as they did last summer. This water would then find its natural way into the Thames where it could be</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>extracted further down.</p> <p>5) Another potential with the Canal Transfer Option is to construct at least two Hydro Electric schemes where there is a sufficient head of water. This would be at the Siddington and South Cerney Lock flights. Such a scheme is already in action at Dudbridge on part of the Cotswolds canals that are already restored. The Electricity that could be generated this way when there is sufficient flow, would help to offset electricity used for the pumping giving another cost and environmental benefit.</p> <p>6) The Canal option could also take advantage of the Gloucester treated waste water outfall into the Gloucester and Sharpness Canal that connects with the Cotswold Canals. To use this water with Thames Waters proposed pipeline would require an additional and expensive pipeline connecting to it!</p> <p>7) I feel that Thames Water have grossly underestimated the financial benefits that the resulting restored Canal would bring over future years. Their estimate of £80,000000 over 80 years is in conflict with the IWA (Inland Waterways Association) "Waterways for Today" report that estimates £800,000000 over the same time period! This report is based on numerous studies by separate independent bodies. Can Thames Water boast the same?</p> <p>8) Finally, why is it that strong public support for the Canal transfer scheme in previous consultations is falling on deaf ears? The economic, leisure & wildlife benefits that a restored Canal would bring over an alternative buried pipeline most surely would give 'Best Value'.</p>		
3863	<p>I am writing to you to express my views and preference for the water transfer plans from west to east.</p> <p>I have read a number of reports and feel it necessary to express my view.</p> <p>I support the Cotswold Canals SevernThames Transfer for the following reasons</p> <p>The environmental and Leisure\social benefits far outweigh an underground pipe</p> <p>If this plan is implemented before the much longer Abingdon reservoir leadtime this would enable the delivery of water to the southeast quicker and at greater</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>volume</p> <p>Having attended a previous Thames water consultation meeting and looked at the recent report presented I struggle to believe some of the stats/logic of plans that are presented, namely Why would you prioritise Abingdon Reservoir plans over the Canals plan when the benefits would be less/slower? Why are you choosing to ignore numerous reports that show the Canals plan to be up to 10x the monetised value in terms of best value to the population? What can the environmental and social benefits of recycling waste water or desalination plants be compared to the extensive benefits that the Canals plan presents?</p> <p>From looking at the reports I hope that others will see what I see that Thames Water plans fall short of the mark by some way in terms of Best Value and that the Cotswold Canals SevernThames Transfer is given the green light.</p> <p>Just to be absolutely clear I support the Cotswold Canals SevernThames Transfer plan</p>	<p>transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3864	<p>I am writing to give my full support to the proposal to transfer water resources into the Southeast from the River Severn by way of restoring the Cotswold Canal SevernThames link. The restoration of the canal would be the most cost effective way of increasing water resources to the South East when the long term social utility of restoring the Canal is taken into account. An underground pipeline would be (literally) a sunk resource with no additional benefits in terms of social utility. In addition, there is evidence that the use of the Cotswold Canals Severn Thames link would bring a quicker benefit to the problem of increasing water availability in the South East.</p> <p>For both these reasons, I would like you to register my strong support to the proposal to extend the Cotswold Canal to link the Severn and Thames waterways and use this waterway to increase water resource to the South East</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3865	<p>By using the Cotswold Canals to transfer water from the Severn to the Thames you will be providing a Natural Capital Benefit that is not provided by a buried pipeline.</p> <p>Also I can see no supporting evidence in the WRSE Best Value Plan for the assertion that use of the canals will be more costly than a pipeline.</p> <p>I am also concerned that the very strong support for the Cotswold Canals Transfer option does not appear to be influencing the plans.</p> <p>I strongly support the Cotswold Canals Severn Thames transfer scheme which should be brought forward in the the proposed program(s)</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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3868	I support Cotsworld Canal water transfer Project.	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.	
3869	<p>I wish to state my views on the options being proposed for water transfer to SE England in the latest information given.</p> <p>I believe that the option to use the Cotswold canals to transfer water from R. Severn to R. Thames offers the best overall public value, most environmentally friendly and has the highest social benefits of the schemes being considered.</p> <p>I cannot understand how a buried pipeline, water desalination or treatment of waste water can offer better value overall.</p> <p>Why is a very longlead and highly controversial -reservoir being prioritised over the Cotswold Canals SevernThames Transfer option? The CCSTT option can be built in a much shorter time than the proposed reservoir scheme and offers much wider public acceptance and overall public benefit.</p> <p>The argument is now being put forward that the proposed pipeline can move up to 500 ML/d eastwards (as opposed to the canal's maximum 300 ML/d), but I understand that this volume is only possible if the R. Severn has the required flow available to transfer (it appears that this argument has been added lately to try to demerit or squash the canal option – but is an inadmissible argument if the R. Severn cannot supply that volume in the first place (or is only available at times of heavy rainfall, when the R. Thames would also possibly have sufficient extra flow to cope with demand).</p> <p>The CCSTT option should be prioritised over the SESRO reservoir option, as it can deliver much more water, be built faster (based on the stated reservoir's 185 ML/d and within 15 years) and offers the best overall value to the public.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
3870	<p>I strongly support the Cotswold Canals suggestion of using the Thames and Severn canal for the water transfer, and find it really surprising that currently the alternative buried pipeline, together with the controversial new reservoir,</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full</p>



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	<p>appears to be in favour. It would in any case take far longer to implement the latter scheme.</p> <p>The canal route surely offers best value both environmentally and financially, when the true benefits of both canal restoration and the cost of water transfer by this and the alternative pipeline are properly assessed. The social and economic advantages of a completed canal between the Severn and the Thames are potentially immense, especially within the local communities.</p> <p>Many thanks for the opportunity to comment, meanwhile, I look forward to a decision which reflects the superiority of the Canals scheme.</p>	<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
3871	<p>The word 'environment' appeared frequently with little detail on how the environment would benefit from this proposal.</p>	<p>Thank you for your response. Protecting and enhancing the river environment and ecology is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals and will ensure that we protect the river, its wildlife and the people that use it.</p> <p>We have completed the required assessments to understand the environmental impacts of our water resource schemes, in line with the Environment Agency's guidelines. We consider that the schemes we have</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>

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		included in our plan are environmentally resilient and appropriate to include in our viable options list.	
3871	<p>I attended the recent presentation by Thames Water for recycling water from the Thames which it proposes to deal with future water shortages.</p> <p>I expected the presentation to be an opportunity for consultation however it seemed to be more of a publicity exercise.</p>	<p>We are sorry to hear your feedback. In response to local interest we held a further community event in Twickenham and a webinar to enable local residents and organisations to find out more about the scheme and respond to questions. If the Teddington DRA scheme is included in the final WRMP it will then progress through planning and there will be multiple opportunities for scheme-specific engagement and consultation with local communities.</p> <p>We would like to reassure you that we are committed to working openly and transparently with all stakeholders, and community engagement and consultation is an important part of this. We have recently appointed a dedicated engagement manager for the Teddington DRA scheme which will help to ensure we engage effectively with the local community going forwards.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3871	<p>The word 'environment' appeared frequently in your presentations with little detail on how the environment would benefit from your planned proposal.</p>	<p>Thank you for your response. Protecting and enhancing the river environment and ecology is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals and will ensure that we protect the river, its wildlife and the people that use it.</p> <p>We have completed the required assessments to understand the environmental impacts of our water resource schemes, in line with the Environment Agency's guidelines. We consider that the schemes we have included in our plan are environmentally resilient and appropriate to include in our viable options list.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
3871	<p>I and many others I know remain unconvinced that you are putting profit before the environment and safety. This is very concerning.</p> <p>More specifically, as untreated sewage is already being dumped almost continuously into the Thames further upstream in the Cotswolds and near Oxford and it is also planned to increase this locally it is extremely worrying both for biodiversity and for human health</p>	<p>Thank you for your representation to the consultation and we note your dissatisfaction with Thames Water and concerns about the environment.</p> <p>In respect of sewage discharges, the discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>It seems you have been left off the hook by relaxed government regulations, reduced monitoring and far too distant targets. I am against this proposal and know of many others who feel the same way. Public opinion is turning against you.</p>	<p>processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>We have a statutory duty to prepare a WRMP to ensure we can continue to provide a secure and sustainable water supply. We engaged with regulators, stakeholders and our customers throughout the development of the draft plan and have ensured the plan complies with legal requirements and the regulatory guidelines. We appreciate that some consultees do not like aspects of our draft plan but we do need to progress measures to ensure we can continue to provide a secure water supply for the next 50 years.</p>	
3871	<p>The proposal is not long term and does nothing to reduce leakage/overall water supply presumably because this would be more costly</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Priorities of Approach - focus on cost Our WRMP, as part of a regional solution for the South East of England, is</p>	



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		not the least cost solution, but one that reflects best value across a range of financial, environmental, social and resilience metrics.	
3871	In addition the proposal is not long term and does nothing to reduce leakage/overall water supply presumably because this would be more costly.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought. To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Priorities of Approach - focus on cost Our WRMP, as part of a regional solution for the South East of England, is not the least cost solution, but one that reflects best value across a range of financial, environmental, social and resilience metrics.</p>	
3871	<p>More importantly, as untreated sewage is already being dumped almost continuously into the Thames further upstream in the Cotswolds and near Oxford and more locally it is extremely worrying both for biodiversity and for human health, that Thames Water are submitting a further proposal to worsen this situation by adding further treated sewage and recycling this for our domestic use. I am against this proposal and know of many others who feel the same way.</p>	<p>Thank you for your response to the consultation.</p> <p>Discharges are designed to happen automatically when, after heavy rain, more flow arrives at a Sewage Treatment Works (STW) than it can treat or store. We cannot control the amount of flow arriving at the works and trying to do so would cause flooding somewhere else, from the sewers backing up.</p> <p>STW are designed so that any surplus, above the amount the site is designed to treat, is diverted automatically to storm tanks and stored until</p>	<p>Thames Water's WRMP sets out the vision to address the predicted deficit in water across London and includes a number of different measures to generate new sources of water.</p>



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		<p>incoming flows reduce and the works once again has spare treatment capacity.</p> <p>Discharges of untreated sewage only take place when the works is operating at full capacity and the storm tanks are full. When that happens, any excess overflows automatically to the river, because there is literally nowhere else for it to go.</p> <p>Eliminating these discharges is not going to be quick, easy, or inexpensive but we consider that putting untreated sewage into rivers is unacceptable to us, to our customers and to the environment and we are committed to achieving the cleaner rivers we all want to see. We are investing at least £750 million over the period from 2025-2030 in reducing discharging of untreated sewage to rivers.</p> <p>TW is investing significantly from 2025 to 2030 on improving our wastewater network and STWs. This includes increasing treatment and/or storage capacity at a number of sites, including Mogden, Chesham, Witney, Bourton on the Water, Fairford and many others. Our plan for the following five years, which is currently being prepared, will include further major improvements towards our goal of eliminating untreated discharges.</p> <p>The level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames, downstream of Teddington Weir.</p> <p>The treatment parameters would be defined by the Environment Agency, but our current proposal is a level of treatment that balances the spatial constraints that we have at Mogden Sewage Treatment Works, best value for our customers and water quality. We feel that our current proposal effectively balances these factors without significantly increasing the risk of environmental impacts.</p>	



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3871	<p>it is extremely worrying both for biodiversity and for human health, that Thames Water are submitting a further proposal to worsen this situation by adding further treated sewage and recycling this for our domestic use. Your suggestions of monitoring the effects on the environment, biodiversity and drinking water for our health are inadequate. Too little and too superficial. For example, changes to the environment would take time to work through the food chain starting with algae and insects. Your plans do not go deep enough. The excuses given about saving money to the consumer do not ring true when you have already been given money for investment over the years which has not been sufficiently earmarked for this and instead the impression is that the water companies have been opportunities for profit for a few at the expense of damage to the environment</p>	<p>The Teddington DRA scheme would be a drought resilience scheme and therefore only operational during periods of prolonged dry weather and when reservoir storage levels and river flows are below a set threshold, typically every other year and during August to November. For large parts of the year the scheme would not be operational.</p> <p>The process of treating sewage and discharging the final effluent back into the Thames is critical to ensuring flows and wildlife is protected in the River. The Teddington DRA scheme uses this concept and will provide improvements in water quality owing to the additional treatment the final effluent will receive before the recycling water is discharged. As part of development of the scheme we have investigated the risks a scheme poses to the environment and for a scheme of the size proposed we predict a low risk of environmental effects. More work is required over the next couple of years to refine the assessments, design and mitigation for the scheme and the outputs of these ongoing studies will be made available and published on our website.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
3872	<p>I write to support the proposal to use the above canal for transporting water to London.</p> <p>It is a win win scheme. It is cost effective, environmentally friendly and an efficient way to solve the water shortage. It also will allow the canal restoration to be completed rapidly to the benefit of all concerned in the area through which it runs. It will improve the area, provide a means of recreation, allow run down areas beside the canal to be restored, bring jobs and allow people to take exercise in the fresh air.</p> <p>If there is a cost implication then that is more than compensated for with the above mentioned advantages.</p> <p>Also it will save the cost and disturbance of laying a pipe as well as the carbon emissions of manufacturing pipe.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3873	<p>As a keen canal enthusiast and environmentalist I am writing to express my backing for the proposed Cotswold Canals SevernThames Transfer scheme as proposed by the Cotswold Canals Trust.</p> <p>I can't understand why the currently preferred plan includes the construction of a massive reservoir outside Abingdon as the first priority. This reservoir will not be commissioned until 2040, it will be extremely expensive with little environmental benefit, and is heavily opposed by the local population. It also won't be able to deliver as much water for a sustained period as the Cotswold Canals SevernThames Transfer scheme.</p> <p>I agree that a Severn Thames Transfer pipeline may be less expensive than restoring the canal, but it does not add any benefit to the environment. Indeed, the digging of the trench for the pipeline will surely do more damage to the environment than would be the case if the pipeline was to be laid under the towpath where a pipeline is required on the uphill canal sections. A restored canal will benefit the environment by encouraging the return of flora and fauna at a time when Biodiversity Net Gain is now such an important driver for projects. The restored canal will also provide considerable economic benefit to the local communities through which it passes by way of increased public use. Indeed, according to the recently published "Waterways For Today" report, published by the Inland Waterways Association, the financial benefit to the local economy could amount to £800 million over the next 80 years.</p> <p>To summarise, I don't understand why the strong public support expressed</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>previously for the CCSTT scheme does not seem to be influencing this consultation. Please reconsider the plan.</p>	<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3874	<p>I wish to support the Cotswold Canals Severn Thames Transfer Scheme (CCSTTS) and ask that this is brought forward in the proposed programme. Please, fully take into accounts my comments below:</p> <ol style="list-style-type: none"> 1. This scheme should be highest on the preferred programme list because it delivers so much natural capital including biodiversity, connectivity and social benefits. 2. The canal should be used rather than a pipeline because it offers so much more including a much lower summit over which water has to be pumped. 3. Restoring the Cotswold Canals would incorporate a legacy into the programme that would be seen as inspirational and visionary by current and future generations. It would be seen as an iconic manifestation of the Government's 25 year Environment Plan. 4. A buried pipeline offers virtually no natural capital benefit and would not meet the "Best Value" aspiration of the WRSE Plan. 5. When comparing the canal with pipeline option, there has been no considered analysis of the financial value of the restored canal to the local and wider economy. In a recent report "Waterways for Today" published by the Inland Waterways Association, the additional financial value of restoring the canal could run to £800 million over the next 80 years. That extra benefit more than offsets the difference in cost between the canal and pipeline options. 6. A Severn – Thames transfer can be implemented years quicker than building the large reservoir in Oxfordshire and with far less local public opposition. This reduces the risk of running out of water in the shorter term were a drought to occur. 7. The response to the emerging WRSE Best Value Plan elicited very strong support for the CCSTTS. Nonetheless this does not appear to have been taken into account. 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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3967	<p>You have sold off reservoirs and paid out obscene amounts of money to shareholders and directors, instead of investing in water resilience.</p> <p>Given the number of hours that you send untreated sewage into the river, not only in serious storm conditions, it is highly likely that this new plan will be another route to dump excess untreated sewage into the river.</p>	<p>Thames Water has only sold off service reservoirs when these were no longer needed due to changes in water distribution network. It has not sold off any storage reservoirs.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p> <p>We note your objection to the Teddington Direct River Abstraction (DRA) scheme and concern regarding the discharge of sewage. The scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. There is no route for raw or untreated sewage to be discharged in the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3967	<p>Thames Water should fix leaks and leave the Thames river alone.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our</p>	



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		<p>network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
3967	<p>You have not fully evaluated the effects of the abstraction and 'treated' sewage on the wildlife and environment downstream of Teddington. This has been acknowledged in the public consultation meetings. Also, the Environment Agency does not have the ability to monitor all the elements of the 'treated' sewage and so the reality of what you are planning could be an environmental disaster -again this was acknowledged.</p> <p>This plan must be withdrawn and other alternatives explored.</p>	<p>Thank you for your response to the consultation. We are continuously working towards a robust and full set of data on the affects of this proposal. As we are not yet at a stage to submit planning, we are able to continue our assessments. Please rest assured, protecting and enhancing the environment is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p>	<p>Thames Water must continue to assess the impacts of this proposal. Given that Thames have not yet submitted planning, we are using this time to fully assess all aspects of the scheme.</p>
3981	<p>COTSWOLD CANALS SEVERNTHAMES WATER TRANSFER SCHEME:</p> <p>I strongly support the above scheme because it would bring many environmental and recreational benefits that do not apply if using a buried pipe</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we</p>



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	<p>for water transfer. In fact the latter method brings none of these benefits.</p> <p>A huge added benefit is that, if the Cotswold Canal transfer scheme was chosen, it would take approx 12 years to complete the restoration of the canal compared to 50 years if the work was done by the Cotswold Canals Trust on its own. It would mean that the many benefits of using the canal to transfer water to London and the South East would be reaped 35+ years earlier than otherwise.</p> <p>The restoration of the canal will contribute greatly to the targets of Defra's environmental land management plan (see Defra document titled 25 years Environmental Plan update October 2021).</p> <p>It will also attract some muchneeded good publicity for the water companies</p>	<p>events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>received about the Severn Thames Transfer.</p>
3981	<p>WHAT WILL USING THE COTSWOLD CANAL TO BRING DRINKING WATER TO LONDON BENEFIT THE ENVIRONMENT AND SOCIETY?</p> <p>in no particular order. An invaluable lesson for the water companies to learn the simple engineering skills of using water in canals and rivers to transfer water from A to B and an amazing array of Apprenticeship opportunities</p> <p>The obvious value of a restored canal to society and the local economy is enormous</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>The pipe line has nothing to offer by of environmental or capital gain. In fact the restoring of the canal could act as mitigation for other water resource schemes .</p> <p>The wild life benefits are enormous. Red and Yellow listed birds. Aquatic invertebrates. Fish. Amphibians ans Reptiles pollinators, Water Voles, Otters, and Bats.</p>	<p>Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3982	<p>Finacial:</p> <p>The comparison between all the options seem initially, to favour an obvious option (CCSTT), but like everything the devil is in the detail.</p> <p>The Thames Water South East Strategic Reservoir option known as SESRO, plans suggest that this will be 100 million cubic metres in capacity although there is a 150 million cubic metres option.</p> <p>This is being promoted to be built first even though it will take until 2040 to bring it into commission -always assuming it gets through the planning system given the well resourced local opposition to it. A reservoir here has been talked about for some 40 years but it still has not happened. As we all know (e.g. HS2) costs of projects increase beyond ones imagination over extended periods, so 40 years of a project will engender massif cost increases. -</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>As far as the SevernThames Transfer options go, the plans suggest that the pipeline is less cost than using the canal. They are also advocating a 500ML/d transfer rate which is more than the canal would be able to cope with. The logic behind this is very questionable. The project is also scheduled after the proposed reservoir which makes no sense given its much shorter leadtime.</p> <p>A big omission when comparing the canal vs pipeline is the presentation of a well considered analysis of the financial value of the restored canal to society and the local economy. This seems to have been largely ignored but, on the basis of the recent Inland Waterways Association (IWA) Waterways for Today Report, the additional financial value restoring the canal could run to about £800million over the next 80 years (the basis on which the costs and best value calculations are based). That additional benefit more than offsets the difference in cost between the pipeline and canal options. It also justifies pressing for the full restoration of the canal rather than the minimum necessary to enable the transfer of water alone.</p> <p>Environment :</p> <p>It is rather obvious that a buried pipeline has little or nothing to offer by way of environmental or Natural Capital gain compared with using the canal. In fact the damage to the environment of any such pipeline would be enormous by the wide swathe it would cut across the countryside with heavy machinery and works depots. It may also experience setbacks due to archeological sites along its planned path, which would need investigations.</p> <p>The canal option would not experience any such issues as the route it takes is well defined from its original path. The same goes for water reuse plants and many of the other forms of water resource development. In this respect restoring the Cotswold Canals could act as mitigation or biodiversity offsetting for other water resource schemes.</p> <p>The "Best Value" aspiration of the WRMP is not met by using a long pipeline in</p>	<p>have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>preference to using the restored Cotswold Canals. A buried pipeline offers virtually no additional Natural Capital benefit. (WRMP)</p> <p>The response to the emerging WRMP Best Value plan demonstrated very strong support for the Cotswold Canals transfer scheme. There is no detailed information to justify the statement "The use of the Cotswold Canals as part of the Severn Thames Transfer rather than a new pipeline, has been explored but is a more costly option" (page 28 of the draft WRMP Best Value Plan). (WRMP)</p> <p>Given the imminent shortage of water supplies and ongoing uncertainties in demand reduction, climate change etc., it makes no sense to build the long lead time SESRO first and the shorter lead time STT scheme after it. The CCSTT scheme should be delivered as soon as possible to reduce risk and potentially bring forward environmental abstraction reductions. (WRMP & TW dWRMP)</p> <p>Selecting the pipeline option for the Severn Thames Transfer lacks the environmental and social capital ambition that the canal offers. (WRMP & TW dWRMP)</p> <p>It definitely appears previous consultations for the Cotswold Canals transfer option does not seem to be influencing the plans. (WRMP & TW dWRMP)</p> <p>The canal option will create broad opportunities for leisure, sport and health benefits for the whole community creating employment, increased economic benefits, and space for people to relax, taking in the country side along a beautiful waterway, while a pipeline delivers none of these. With the connections this canal option would deliver, comes expanded benefits to a much wider area than the local conurbations', with access to the northern canals and towns.</p> <p>The Cotswold Canals SevenThames Transfer is the option that ticks all the boxes of common sense and a faster deliverable.</p>		
3984	<p>I am not technically minded nor do I have a -scientific background. Basically I am a layman -and member of the public. I do know there is more fresh water in the west of the country than in the east. And it does seem sensible that excess</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full</p>



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	<p>water from the west should be transferred to the drier areas of the south -and east. This is why -I support -the -SevernThames -Transfer option.</p> <p>I am a member of Cotswold Canals Trust and very much support its objective of restoring the Stroudwater and Thames and Severn Canals, thereby linking the Severn with the Thames. It is a very imaginative and longterm project. Much of the work is done on a charitable and voluntary basis.</p> <p>It would be to the immense advantage of the Water Companies and Cotswold Canals Trust if they were to work together, the one in moving water from west to east and the other in the restoration of an historic canal. There are advantages to the environment in this age of climate change and an immense leisure facility to those who enjoy the canals. Two objectives achieved for the price of one!</p> <p>I understand that the Water Companies at the moment favour the alternative option of a brandnew big reservoir near Abingdon serving London and the Home Counties areas. I understand that this is the cheaper option. In my opinion the environmental impact would be considerable. Land for housing and other purposes in the south and southeast is at a premium. The alternative of water transfer by means of the canal is imaginative -and in the longterm would be costeffective.</p> <p>These are my reasons for supporting the SevernThames Transfer option. As I am a supporter of the Cotswold Canals Trust the financial assistance of the Water Companies would bring about sooner the completion of the objective of joining the Severn and the Thames. It would be an historic achievement and in my opinion much to the benefit of the public.</p>	<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
3985	<p>I am a member of the canal restoration group planning to reopen the canal from Saul Junction to the river Thames. I am not an expert in water supply or water transfer. I am a little confused by the plan to build a pipeline across the Country and additionally, building a reservoir in Oxfordshire.</p> <p>I do not understand how it can be deemed a good idea when considering the cost, timescale and disruption this action will undoubtedly cause.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Firstly, I understand the pipeline will cost millions of pounds. Secondly, I have seen no comments regarding the effects this will cause to residents, farmland, land owners, disruption to major and minor roads and the environment. Thirdly, if HS2 is anything to go by the eventual cost will be way above the figures being quoted now.</p> <p>With a little joined up thinking, the water companies and the authorities could consider the pipeline that already exists, the Thames / Severn Canal. A much smaller proportion of the total pipeline cost could be committed to the canal project. The scheme would be completed much sooner with virtually no disruption, considerable benefits to conservation, tourism and leisure activity potential and a major contribution to the history of the waterways network. The Water suppliers would also benefit from the positive publicity. If contractors, who would be otherwise assigned to build the pipeline, were instead allocated to assist the volunteers, the waterway would be open in no time.</p> <p>In the early eighties, my Law tutor continually quoted Lord Denning. He was deemed the common sense judge! Consultations such as the water transfer schemes tend to be led by water experts. Opposition usually comes from those affected by the disruption or the possibility of loosing land.</p> <p>The common sense approach would be to listen to the canal board of directors; the route exists, potential disruption is minimal, the cost is far less, the benefit will be completed much quicker and the end result will be the same.</p> <p>The good thing about not being an expert is that it is easier to see the bigger picture in a simplistic way. I'll put money on the fact that if this were to be publicly debated on TV -the mailbox would be full of people in favour of the cheaper, more beneficial option of utilising the canal water way from Saul to Lechlade -on -Thames? It seems to me that's common sense.</p>	<p>options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3985	<p>We need to consider the time frame for this scheme if global warming continues? This scheme will take years to complete and I'm sure the South East will need water sooner rather than later.</p>	<p>We recognise the risks that climate change poses. Our WRMP is based on establishing a supply-demand balance forecast and then planning schemes</p>	<p>No changes - our consideration is that our approaches are robust</p>



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		to meet any deficits that exist. Our planning demonstrates a significant need for water in the early 2030s, with a further need for water in 2040.	
3985	I assume the customers and shareholders of the water companies will end up funding this scheme even though I'm sure Government funding will be involved. My question is: have shareholders and customers been consulted? Ultimately it is they who will foot the bill and receive increased costs and/or reduced dividends on their investment.	We have a statutory duty to prepare a WRMP to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. The majority of the investment is to ensure we can cope with our changing climate and can continue to provide a secure water supply, as well as protecting and improving the environment for the long-term. Most of the investments are funded through customer bills. We have engaged with regulators, stakeholders and our customers throughout the development of the draft plan and as part of this public consultation and have taken account of their preferences and priorities in revising the draft plan.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
3986	<p>As I understand it, there is a plan to build a reservoir near Abingdon -starting in 2025 -which will probably be ready for operation by 2040.</p> <p>There are also plans to build waste water and desalination processing plants in the same time frame.</p> <p>Then there is a plan to start building the Cotswold Canals SevernThames water transfer system in the 2030s.</p> <p>At the same time, various water companies are pushing for pipelines, as opposed to reservoirs or canal systems, to do the same job.</p> <p>What I would like you to consider is swapping round some of these proposals, so that the potential water supply is provided sooner. With contractors, it should take 78 years to rebuild the Cotswolds Canals, and this should be put first in the time frame.</p> <p>This way more stakeholders will benefit from the overall scheme, as it would meet the WRSE's 'best value' aspirations that include factors such as longterm social and environmental benefit. These aspirations include factors that have been largely ignored in the consultation to date, such as the financial value of the restored canal to society and the local economy -and they also chime in with the latest government biodiversity plan to protect and restore England's wildlife.</p> <p>Also, with global warming there is a good chance that London and the SouthEast will run out of water in the next seven or eight years. So it really makes sense to seriously consider a good water transfer solution with a shorter</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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	<p>lead time. In addition to any social and environmental gains, such as extensive areas for public recreation, getting communities involved in something that will benefit their health and relaxation, this will also generate a lot of public enthusiasm for the project and -with the right publicity -all the water companies involved in the scheme will be seen to be doing 'the right thing'. I hope you will carefully consider what I propose</p>	<p>preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3986	<p>The issue of providing an efficient water supply to all parts of our country is an important and complex one, so it is good to see that the consultation is also being carried out by Thames Water and Defra as part of their Water Resource Management Plan. and I look forward to hearing about what you decide.</p>	<p>Thank you for taking the time to participate in the public consultation, and providing feedback.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
3993	<p>I don't have much time but I wanted to offer my support for the suggestion of bringing water to London via a pipe providing a full EclA is undertaken and associated biodiversity enhancements implemented. I think it is a much less damaging option in relation to nature and the environment than restoring the Thames & Severn Canal. If you need more information concerning the deleterious impacts on nature of restoring the canal I can provide some.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3996	<p>In your report, which concluded that a vast reservoir in Oxfordshire that wouldn't be completed for the best part of 20 years – and given levels of delay normally associated with huge infrastructure projects, perhaps as many as 30 years – was the best option for securing water supplies for the south east, you appear to have chosen a buried pipeline from Gloucester as the second best option because it would be cheaper than the alternative, which is to use the already existing route of the Stroudwater / Thames & Severn canal corridor.</p> <p>This seems to me wrong headed on many levels. First, the level of public support versus public opposition involved in each of the three options, which comes down very clearly in favour of using the canal corridor in preference to a buried pipeline, which in turn is regarded more favourably and faces far less opposition than the creation of a huge reservoir in Oxfordshire with all the disruption that will entail.</p> <p>Second, there's the issue of mess and disruption. By far the most messy and disruptive option must be the reservoir – where will all the spoil go and how will it be moved? Next in terms of mess is the pipeline – it involves digging a deep trench across miles of land, then filling it in again, having of course shifted excess spoil, again by road, to somewhere else that doesn't need it. The least disruptive by far is the canal corridor, because it already exists – it's there, ready to be used.</p> <p>Third, there's the issue of societal gain. Obviously the primary purpose of this whole exercise is to provide society with a more reliable water resource. Perhaps the south east can wait another 20 or 30 years, but that is a long time to expect society to wait for a reliable water supply, and just as long as the wait for a usable fishing and boating lake. The pipeline option meets the primary</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>purpose quicker but does nothing else. The canal corridor, on the other hand, would not only meet the primary purpose as quickly as the pipeline, it would also provide wider society with a fully functional canal linking the west and northwest of the country with the Thames, boosting recreational opportunities and related business activities along its entire length.</p> <p>Please reconsider again your plans. Pay proper heed to all the societal benefits that will flow from a fully restored canal corridor that will also support the water needs of the south east far quicker than the alternatives.</p>		
3997	<p>I strongly support the option of using the Thames & Severn Canal as the most sensible first choice to increase future potable water supplies to the South East of England. It could also be achieved relatively quickly.</p> <p>The use of a restored canal to channel water from the River Severn to the River Thames appears to have significant environmental and community wellbeing advantages over many, if not all, of your other ideas – please confirm my view on this important point.</p> <p>There should be worthwhile costsavings compared to pumping the water the complete distance between the 2 Rivers (both capital and operational costs -the latter probably related to the decreased height needed to pump, as well as the shorter distance, by using the Thames and Severn Canal's Sapperton Tunnel, being much lower than the Cotswold escarpment for a 100% pipeline route)</p> <p>I note the WRSE need for 'Best Value' options; I believe the use of the restored canal will tick all the boxes -financial, environmental and community wellbeing.</p> <p>Also, why is the Cotswold Canals 300MI/d capacity option currently Thames Water's least favoured option when the Abingdon reservoir scheme will be years later than the canal transfer option?</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>I would be interested to see the reasoning if other schemes are considered to present better overall Best Value outcomes.</p>	<p>levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
3998	<p>I queried with the WRSE why the Cotswold Canals SevernThames Transfer sustainable proposal was not included within their draft Best Value Plan. -To date my query has not been addressed.</p> <p>The Cotswold Canals SevernThames proposal could see up to 300 million litres of water per day being transferred from the River Severn to the River Thames via the canal. The scheme has huge advantages over more traditional solutions such as reservoirs and pipelines. With a restored canal, there is no loss of countryside and less need to keep taking water from the ground in the South East. It is the most promising way of restoring the whole 36 miles of the Thames – Severn link.</p> <p>The Cotswold Canals Trust believes the Severn Thames Transfer is also the best value option -one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
3998	<p>For these reasons, do not dismiss the Cotswold Canals proposal as it makes economic sense at a time when this country is in need of severe austerity measures. The country is presently in decline and needs to curb its spending</p>	<p>The regional assessment of best value (as set out in Section 10 of the WRMP Main Report) includes cost, environmental and resilience factors. We don't weight these factors in our assessment and understand that there is</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10</p>



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	<p>strategies. I contend that “best value” options should be most carefully appraised in relation to the overall cost to the environment. Any schemes of this nature should be thoroughly scrutinised due to the wider implications to society having to bear extra costs at a time of extreme hardship. Hardship caused mainly by a Government unable to assess the total chaos within the country and the inability to deal with existing problems rather than its own disgraceful internal behaviour.</p>	<p>subjectivity and different points of view. All schemes have their pros and cons. Our current preference for the Severn to Thames interconnector is via pipeline. We recognise that the canal route has community and environmental benefits, but equally costs are higher and it would be more challenging to operate.</p> <p>All schemes within and programmes promoted by WRMPs are subject to scrutiny by the public, stakeholders, regulators and Government.</p>	<p>(Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.</p>
3999	<p>I wish to record my support for the Cotswold Canals SevernThames Transfer scheme as this gives a greater value for money and environmental benefit than the alternative schemes and can be completed sooner.</p> <p>It will also leave a lasting environmental and social benefit as well as allowing the necessary water transfer.</p> <p>The very strong support for the CCSTT during previous consultations does not seem to have been give due consideration.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.	
4000	· Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.	Our demand management programme involves planning to meter as many customers as we can, as soon as we can, considering the overall deliverability of the programme. All metering that we will undertake will be smart metering, in order to target water efficiency activity in the future.	No changes for the reasons detailed in our consideration
4000	<p>I care about our rivers in the south east of England, especially my local rivers, the Hogsmill, the Pyl Brook, the Beverly Brook, the Wandle and the Thames. I am a keen kayaker and I've seen numerous times what it's like when our rivers aren't cared for. In particular, I'm extremely concerned with the damage from untreated storm/sewage overflow and overextraction.</p> <p>Kayaking in a river where floating excrement, sanitary products and dead fish are clearly identifiable is no one's idea of fun and it's beyond shameful that this happens on a regular basis on your watch.</p> <p>More needs to be done to keep our rivers safe and clean and this is your responsibility: to your customers, to our children and future generations.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood.</p>	<p>Thank you for your feedback to this consultation. A key driver to our draft WRMP is to ensure we can cope with our changing climate and continue to provide a secure water supply, as well as protecting and improving the environment for the long term. We will need to invest to achieve this.</p> <p>Specifically regarding sewage discharges, the discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
4000	· Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.	Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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	<ul style="list-style-type: none"> · Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres; · This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? <p>Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p>	<p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years’ performance. Despite this we remain committed to doing everything</p>	



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		<p>we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage.</p>	



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		<p>For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Non-Household (commercial) water use</p> <p>The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%.</p> <p>We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage</p>	



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		<p>and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first.</p> <p>To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First.</p> <p>We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
4000	<p>· It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>Yes, we share your concerns over timetable constraints and how this effects our ability to meet new government requirements around environmental improvements and water supply resilience since our last Plan was published in 2019.</p> <p>We are committed that our new water supply schemes will be more sustainable than those we are ceasing or reducing. For this scheme this includes a commitment to enhanced sewage treatment - to a considerably higher standard than is required by government for all our sewage treatment works and those of all other water companies in the country. We have contracted the expert aquatic modellers of HR Wallingford [https://www.hrwallingford.com/] to understand the potential for water temperature and salinity effects of the scheme. We are confident that a 75MI/d or 100MI/d will not increase the temperature of the River Thames at</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>Teddington Weir in a way that effects ecology - our assessment to date identifies that at highest river temperatures, operation of the scheme would reduce temperatures slightly, but there are risks of small increases in autumn akin to delaying autumn by a week or so, once every 20 years in drought circumstances. If the risk is too high the scheme will not go ahead.</p> <p>Conversely there will be reductions in water temperatures at Brentford as the warming effect of our current discharge from Mogden sewage treatment works on the tidal river reduces. We are continuing to investigate this. We are confident there will be no risk of changes in salinity in the tidal river or the estuary, including with climate change, and there is no risk of the River Thames at Teddington becoming brackish as a consequence of this scheme. If risks are identified and cannot be nullified by improved design, then the scheme will not go ahead.</p>	
4001	<p>I care about our precious rivers in the south east of England, especially my local rivers, The Wandle and the River Graveney. The Wandle provides a pleasant and continuous rural thread through the urban landscape of South West London.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. I am particularly concerned about the regular release of untreated sewage into the River Graveney. I realise this consultation is about water resources and I look forward to hearing your proposals regarding wastewater.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	Changes made are as described in our consideration, with details presented in Section 8 and Section 11



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4001	<ul style="list-style-type: none"> Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve 100% coverage by 2030. 	<p>Our demand management programme involves planning to meter as many customers as we can, as soon as we can, considering the overall deliverability of the programme. All metering that we will undertake will be smart metering, in order to target water efficiency activity in the future.</p>	<p>Changes made are as described in our consideration, with details presented in Section 8 and Section 11</p>
4001	<ul style="list-style-type: none"> Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged. Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve 100% coverage by 2030. Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres; This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. <p>You should circulate this statutory consultation to all Thames Water Customers and describe in more detail exactly what you are doing to reduce leakage rates.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed un-meterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to</p>	



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		<p>Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in</p>	



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		<p>our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of</p>	



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		<p>water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first.</p> <p>To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First.</p> <p>We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
4001	<p>· It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>Yes, we share your concerns over timetable constraints and how this effects our ability to meet new government requirements around environmental improvements and water supply resilience since our last Plan was published in 2019.</p> <p>We are committed that our new water supply schemes will be more sustainable than those we are ceasing or reducing. For this scheme this includes a commitment to enhanced sewage treatment - to a considerably higher standard than is required by government for all our sewage treatment works and those of all other water companies in the country. We have contracted the expert aquatic modellers of HR Wallingford [https://www.hrwallingford.com/] to understand the potential for water temperature and salinity effects of the scheme. We are confident that a 75MI/d or 100MI/d will not increase the temperature of the River Thames at Teddington Weir in a way that effects ecology - our assessment to date identifies that at highest river temperatures, operation of the scheme would reduce temperatures slightly, but there are risks of small increases in autumn akin to delaying autumn by a week or so, once every 20 years in drought circumstances. If the risk is too high the scheme will not go ahead.</p> <p>Conversely there will be reductions in water temperatures at Brentford as the warming effect of our current discharge from Mogden sewage treatment works on the tidal river reduces. We are continuing to investigate this. We are confident there will be no risk of changes in salinity in the tidal river or the estuary, including with climate change, and there is no risk of the River Thames at Teddington becoming brackish as a consequence of this scheme. If risks are identified and cannot be nullified by improved design, then the scheme will not go ahead.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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4002	<p>I care very much about our rivers, especially my local river, the Thames and even closer, the Wandle. I spend considerable time on or near the Thames.</p> <p>Having seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource.</p> <p>I believe action must be accelerated significantly to protect our rivers and water resource for communities and wildlife now, and for future generations.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p>	Changes made are as described in our consideration, with details presented in Section 8 and Section 11
4002	Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters and achieve near 100% coverage by 2030.	Our demand management programme involves planning to meter as many customers as we can, as soon as we can, considering the overall deliverability of the programme. All metering that we will undertake will be smart metering, in order to target water efficiency activity in the future.	Changes made are as described in our consideration, with details presented in Section 8 and Section 11
4002	<p>Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The targets must be ambitious.</p> <p>Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres.</p> <p>Thames Water should be ambitious targeting very high water users, including in business sectors such as leisure.</p> <p>the leakage reduction targets seem low. Are there approaches to leakage</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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	<p>management and innovation that Thames Water can learn from?</p> <p>How is Thames Water planning to innovate and test to ramp up effective demand measures quickly?</p>	<p>stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand</p>	



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		<p>reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23</p>	



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		<p>have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is</p>	



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		<p>such that demand management and resource development have to proceed in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4002	<p>- Thames Water plans to develop new sources of water to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme is concerning. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. It is preferable to bring forward other options, including the proposed reservoir near Abingdon.</p>	<p>Yes, we share your concerns over timetable constraints and how this effects our ability to meet new government requirements around environmental improvements and water supply resilience since our last Plan was published in 2019. We are committed that our new water supply schemes will be more sustainable than those we are ceasing or reducing. For this scheme this includes a commitment to enhanced sewage treatment - to a considerably higher standard than is required by government for all our sewage treatment works and those of all other water companies in the country. We have contracted the expert aquatic modellers of HR Wallingford [https://www.hrwallingford.com/] to understand the potential for water temperature and salinity effects of the scheme. We are confident that a 75MI/d or 100MI/d will not increase the temperature of the River Thames at Teddington Weir in a way that effects ecology - our assessment to date identifies that at highest river temperatures, operation of the scheme would reduce temperatures slightly, but there are risks of small increases in autumn akin to delaying autumn by a week or so, once every 20 years in drought circumstances. If the risk is too high the scheme will not go ahead. Conversely there will be reductions in water temperatures at Brentford as the warming effect of our current discharge from Mogden sewage treatment works on the tidal river reduces. We are continuing to investigate this. We are confident there will be no risk of changes in salinity in the tidal river or the estuary, including with climate change, and there is no risk of the River Thames at Teddington becoming brackish as a consequence of this scheme. If risks are identified and cannot be nullified by improved design, then the scheme will not go ahead.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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4003	<p>I have recently read the proposed scheme to transfer water to the South East Region using the Cotswold Canals Water Transfer Scheme.</p> <p>It appears to me to be an environmental and cost effective solution to the problem and I strongly support it.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4004	<p>I'm very pleased to see that use of the Cotswold Canals transfer is listed, though as a non-preferred option.</p> <p>My understanding is that the decision is to be based on best value rather than least cost, though this is not expanded upon in the information in you website.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>I would like to point out that the route of pipelines would bring no benefit at all to the people who live in the area they are to pass through and based on the installation of a new water main across the Stroud area, will bring major disruption and inconvenience as roads are dug up.</p> <p>With the canal option, there will be benefits for people's health, a wildlife corridor and more.</p> <p>With this in mind I would like to urge you to prioritise the canal option over the pipeline and give the best value solution.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4023	<p>I FULLY support my MP, Munira Wilson, in her urging TW to STOP sewage discharges, FIX leaking pipework and ALL the other tasks which should have been done Decades ago by the Failed privatisations and which have cost customers extra MILLIONS whilst profits have been siphoned off to Shareholders and overpaid Executives.</p>	<p>We note your dissatisfaction.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year, and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers.</p> <p>Specifically in relation to storm overflows, the discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>Leakage reduction and demand management are a priority. we're investing significantly to tackle the amount of water that is lost from our water pipes. We remain committed to reducing total leakage by 20% by 2025, and in our draft plan we have committed to halve the amount of water we lose through leaks by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment. Our plan includes significant ongoing programmes in both respects, forming the majority of best value solution in the short-medium term. However, this will not be enough to meet the forecast shortfall and resource development needs to be undertaken in parallel.</p>	
4024	<p>I care about our precious rivers in the south east of England, especially my local river the Beverly Brook which runs alongside my Allotment on Hertford Avenue SW14.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. Locally, i have seen the impact of pollution upstream in the river and found unrecorded sewer overflows into the Brook. The EDM storm discharge map is a step forward but as an example, the Worple Road monitor has not been online this year, despite being</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the</p>	Changes made are as described in our consideration, with details presented in Section 8 and Section 11



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	<p>marked with a green tick.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now and for future generations. There are key things that are vital to put in place by Thames Water to ensure this. As a Thames Water customer, I am urging you to consider my points below in the reviewed plans.</p>	<p>need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	
4024	<ul style="list-style-type: none"> Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030. 	<p>Our demand management programme involves planning to meter as many customers as we can, as soon as we can, considering the overall deliverability of the programme. All metering that we will undertake will be smart metering, in order to target water efficiency activity in the future.</p>	<p>Changes made are as described in our consideration, with details presented in Section 8 and Section 11</p>
4024	<ul style="list-style-type: none"> Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged. <p>Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres;</p> <ul style="list-style-type: none"> This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. 	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target</p>	



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		<p>Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand</p>	



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		<p>reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Chalk Stream</p> <p>In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d,</p>	



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		<p>targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
4024	<p>· It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>Yes, we share your concerns over timetable constraints and how this effects our ability to meet new government requirements around environmental improvements and water supply resilience since our last Plan was published in 2019. We are committed that our new water supply schemes will be more sustainable than those we are ceasing or reducing. For this scheme this includes a commitment to enhanced sewage treatment - to a considerably higher standard than is required by government for all our sewage treatment works and those of all other water companies in the country. We have contracted the expert aquatic modellers of HR Wallingford [https://www.hrwallingford.com/] to understand the potential for water temperature and salinity effects of the scheme. We are confident that a 75MI/d or 100MI/d will not increase the temperature of the River Thames at Teddington Weir in a way that effects ecology - our assessment to date identifies that at highest river temperatures, operation of the scheme would reduce temperatures slightly, but there are risks of small increases in autumn akin to delaying autumn by a week or so, once every 20 years in drought circumstances. If the risk is too high the scheme will not go ahead. Conversely there will be reductions in water temperatures at Brentford as the warming effect of our current discharge from Mogden sewage treatment works on the tidal river reduces. We are continuing to investigate this. We are confident there will be no risk of changes in salinity in the tidal river or the estuary, including with climate change, and there is no risk of the River Thames at Teddington becoming brackish as a consequence of this scheme. If risks are identified and cannot be nullified by improved design, then the scheme will not go ahead.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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4025	<p>3. Given the forecasted population growth of London and the South East of England, more emphasis must be put on reducing the number of litres of water needed per person per day. Setting a target of 123 litres when the population is rapidly increasing, is not sustainable.</p> <ul style="list-style-type: none"> • Work with the government to reduce the demand for water by ensuring behavioural changes by the population of London and the South East so that each individual is using less water. Policy change is needed for water usage by both the public and industry. 	<p>Between draft and final plans the government have confirmed that the national target for PCC of 110 should be applied at company-level. As such our revised draft plan will hit this target.</p>	<p>Our preferred plan includes a PCC target of 110 l/h/d.</p>
4025	<p>The ecological health of the river is paramount to us as much of the joy of spending time in the river is sharing it with the abundant wildlife and the native flora. The section of river at Teddington is one of the most beautiful sections of the river in London. It is the last section that is nontidal and as a result has a broad diversity of wildlife. The quality of the water in the river here is paramount to ensure optimum ecological health to support the species diversity.</p> <p>Continued flow of the river water (ie the water level) during dry periods and keeping water clear of algae is essential for continued recreational and other uses of the river.</p> <p>In addition, you are RISKING: * Decreased biodiversity and wildlife abundance -particularly the impact on invertebrate populations which would go on to have devastating impacts for the rest of the food chain -including kingfishers and the seals that swim up the river and create so much joy for river users. - This loss of biodiversity would be caused by:</p> <ol style="list-style-type: none"> increased water temperature pollution from organic chemical changes (eg. increased phosphate levels), as well as damaging inorganic chemicals (toxic metals and other substances), pharmaceuticals and microplastics <p>Final concerns:</p>	<p>All of our strategic resource options (including the Teddington Direct River Abstraction scheme) are being taken through a multi-stage (Gated) process to better understand the benefits and impacts of the different schemes, with the work getting more detailed as we progress through these stages. Our regulators, including the Environment Agency, have been fully engaged throughout this process.</p> <p>At Gate 1 we identified a number of areas where we didn't have enough information to fully understand the impacts of the different schemes. During Gate 2, further work has provided more of the information we need to fill these gaps.</p> <p>The work carried out at Gate 2 has provided us with the following findings for a Teddington scheme up to 100MI/d in size:</p> <p>Temperature We carried out detailed high 3D plume modelling to understand impacts on temperature within the river. This shows that a rise of over 2 degrees Celsius is likely to be experienced across a maximum of 3.6% of the river channel during scheme operation even during low flow conditions– this is well within the EA's specified limit (25%) to protect wildlife in rivers.</p> <p>Water quality Water quality impact assessments have been undertaken using water samples from above Teddington Weir, comparing with final effluent (rather than tertiary treated effluent) from Mogden STW. This shows that for most</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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	<p>o Fears for the impact on river life, fish, insects and plants, because it will change the water temperature and its chemical makeup.</p>	<p>chemicals present, the level of these is expected to be similar in the effluent and in the river. For those that are expected to be higher in the effluent, we are looking at putting in advanced treatment to reduce these levels if tertiary treatment proves to be insufficient. This advanced treatment is already in regular use in the water sector, and we so have good confidence in its ability to reduce the level of these chemicals so that water quality in the river is protected. We are carrying out further water quality monitoring work at Gate 3 to better understand impacts and what mitigation might be needed.</p> <p>Flows and velocity Operationally, the Teddington DRA scheme may lead to moderate reduction in flows when compared to the baseline conditions in the c.140 m of the River Thames between the intake and outfall. However, these changes are negligible when considering impacts to water level depth and flow velocities. The scheme will have negligible effects on flow outside of this reach, because the scheme replaces the abstracted water with treated effluent on a 'like for like' basis in terms of volume.</p> <p>The design of the abstraction intake would reflect best practice and be similar to intakes already in safe operation on the River Thames and elsewhere, and would comply with all relevant health and safety requirements.</p> <p>River health We carried out studies across physical habitat, plant life, fisheries, invertebrates and other groups to understand potential impacts. From this we know that there is potential for minor impacts on some groups of flora and fauna in the river – these are expected to be able to be mitigated.</p> <p>It's important to note that our work to understand these impacts is continuing via the Gate 3 process, to give us more information and certainty on potential impacts, and then types of mitigation that need to be included so that we can ensure that we're protecting the environment in the course of delivering these schemes.</p>	



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		<p>Following investigations undertaken for the Gate 2 submission, and following discussion and representations from the Environment Agency on our dWRMP24, our consideration is that 75 MI/d is the largest promotable size for the Teddington DRA scheme for consideration in WRMP24.</p> <p>Environmental assessments undertaken to date lead us to consider that there is no reason that a 75 MI/d scheme would not be feasible, and as such a 75 MI/d Teddington DRA scheme is included in our preferred programme.</p> <p>As a matter of course, environmental assessments will be undertaken (with an increasing level of detail) through to the submission of our Gate 3 documentation, and the necessary environmental assessments would be undertaken as part of planning processes. If it is found that the Teddington DRA is not environmentally acceptable then the scheme will not be developed, and we will adopt our alternative option for delivering 1 in 200-year resilience, Beckton Water Recycling.</p>	
4025	<p>2. This approach prioritises the cheapest and quickest option over being most environmentally safe. It cannot be said that you are aiming for the highest level of environmental improvements as there are other options that would be less damaging to the natural ecology of the river.</p>	<p>Thank you for your response. The National Framework and Water Resource Planning Guidelines set out the approach that should be taken in defining a regional environmental destination, which is what has been included in both the WRSE draft plan and our draft plan. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. Teddington DRA is part of a wider long-term programme for balancing supply and demand across the South East of England. The selection of options is guided by modelling that considers cost, environment/social and resilience factors. The need for the Teddington DRA is principally driven by the requirement to improve drought resilience. We are required to have a supply system resilience to a 1:200 drought ASAP and a 1:500 drought by 2040. Teddington DRA is the largest and least impactful option available within a</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>



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		<p>reasonable lead-in time and has strong cost benefit, so is regularly selected by the modelling. We appreciate the concerns of local residents about the option, but current evidence suggests the scheme is feasible. Investigations are ongoing as part of the regulator-led Strategic Regional Options programme. In the revised draft WRMP24 (as in the draft) we have completed several sensitivity tests on alternatives, so stakeholders can see what they are and their impact on best value.</p>	
4025	<p>Thames Water – please understand why the health of the river is extremely important to us when we are swimming in the water:</p> <p>We ALL (including Thames Water) cannot under estimate the risk of disease and poisoning to humans, dogs and wildlife. -The stretch of the river is used by thousands of people and dogs, even more so in the summer months where it is always heavily populated with many people in the water. -</p> <p>Many people live in house boats or in very close proximity to the river water along this stretch, egTrowlock Island, your plan will result in increasing risks to human and animal health. -</p> <p>final concerns:</p> <ul style="list-style-type: none"> o Thames Water – you claim this proposal will be safe as you are regulated. -We are worried that although fines may be imposed for breach, ultimately your track record on discharging raw sewage into the river (eg recently at Isleworth and Petersham) shows that you do not care and this is not enough to protect our river. o Thames Water has repeatedly put profits and shareholders ahead of customers and environment; they were fined £51 Million last October for “missed targets” (source: Ofwat). o Thames Water – may we remind you that you were given just 2 out of 5 stars by the Environment Agency in 2021 for record sewage discharge and pollution to the Thames. -Therefore, your plan is absurd! <p>Please discharge this plan and focus on a better way forward. -</p>	<p>The scheme would be designed to be safe for swimmers and other water users. The scheme would be designed to be safe for swimmers and other water users. Our current level of treatment aims to ensure we meet the environmental quality standards set to protect human health and the environment. We are working closely with the Environment Agency, Natural England, and the Drinking Water Inspectorate as we develop our proposals. The scheme would also have physical safety features to minimise the impact on aquatic life, boats, water activities and swimmers. The design would be similar to intake systems that are already in safe operation on the River Thames and elsewhere and would comply with all relevant health and safety requirements.</p> <p>Evidence suggests that Teddington DRA has no significant impact on the environment. The treated wastewater effluent from Mogden STW would have an extra stage of treatment at the STW, which is required to meet environmental consents to allow the water to be discharged into the Thames above Teddington Weir.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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4025	<p>Thames Water needs to:</p> <ul style="list-style-type: none"> do much more to reduce leaks by significantly investing more in repairing and improving the infrastructure it is obvious you should be fixing the leaks before investing in extraction projects or it's nonsensical. 	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
4025	<p>Thames Water's unacceptable proposal 'New river abstraction at Teddington' (the proposal to extract river water and replace with treated effluent at Teddington lock). -I am appalled at the notion that Thames Water think it acceptable for river users to swim in, look at and breathe treated effluent when you do have alternative and better options to hand. -I use this river most days to swim in and walk along and this plan will totally kill this stretch of the river in so many ways. -</p> <p>I am strongly opposed to this plan for the following reason This plan will have a devastating ecological impact on this stretch of the river and beyond as the treated effluent would be warmer, and despite treatment, would contain contaminants and have a different chemistry to the natural river water. This would affect invertebrates and potentially create algal blooms and go on to affect the food chain of the river's wildlife, changing the health of the river and its diversity of flora and fauna. I am asking Thames Water to remove this as an option and use alternative solutions that do not have such significant potential impacts on the ecology of the River. The draft plan provides poor value</p>	<p>The scheme is at a very early stage of development (essentially conceptual design) and environment assessment. The assessment of human health requires a robust water quality dataset, which has been the focus of 2021-2023. Now that the dataset is near completion the health assessment and wider recreational assessment will commence through 2023, which will assess the risks to recreational users and identify mitigation measures required to prevent deterioration in water quality for river users.</p> <p>The environmental assessment completed to date have identified the significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The water being discharged will be of a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology including invertebrates and algal blooms will continue, which will include experiments of introducing recycled water into</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p> <p>For the revised draft WRMP24 we have further examined the range of possible future scenarios and have considered the wide range</p>



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	<p>for the community and environment, with potentially devastating impacts for the health of the river and a knock on effect on the river wildlife and users.</p> <p>Please review your options: - Your proposal for a new reservoir for the South East is a good plan. The new reservoir needs to be significantly big enough to store as much of the winter water flow as possible to avoid having to extract water from the Thames in the drier months. Infrastructure & mechanisms need to be created that can cope with the increasing flash flooding under climate change to make the most of this high volume of water that can be stored.</p> <p>I write not only as a concerned member of the community but also as a member of a local wild swimming group. We spend our leisure time on the River Thames between the stretch of Hampton Court and Barnes Bridge and in particular near Teddington lock, where every day all through the year, you will find us and other river users, enjoying this outstandingly beautiful and clean section of the river. -</p> <p>In addition, you are RISKING: Every year during October to December, the River Thames Authorities carry out maintenance of Richmond Lock, by drawing off the water to allow for inspection and repairs. This means that during this period, the river already reaches its lowest level. -</p> <p>The scheme will also need the building of what many may consider to be an eyesore at the point where the water would be abstracted from the Thames. This is an area of great beauty and enjoyed for its natural landscape.</p>	<p>sampled River Thames water to see how algae will develop.</p> <p>The PLA's November drawdown is understood, and we have targeted monitoring during these periods to understand its implications. The hydrodynamic and water quality modelling of 2023 will have specific representation of these periods, which will then be assessed in terms of ecological and river user receptors.</p> <p>Landscape and visual impact assessment will commence this year to understand the impact and develop mitigation measures that can be included into the design to minimise the visual impact.</p> <p>The draft WRMP plan selected Teddington Direct River Abstraction (2030), SESRO 100Mm3 (2040) and the Severn to Thames Transfer (2050). We set out in the draft WRMP24 Section 11 – The overall best value plan how a new reservoir is a better first option ahead of a transfer from the River Severn. For the revised draft WRMP24 we have further examined the range of possible future scenarios and have considered the wide range of risks that we may encounter in the future and given the range of risks which exist, have selected SESRO 150Mm3 in 2040 to provide security for the regions supplies.</p>	<p>of risks that we may encounter in the future and given the range of risks which exist, have selected SESRO 150Mm3 in 2040 to provide security for the regions supplies.</p>
4066	<p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. Locally, the Wandle suffered greatly during the heat wave last summer. Water levels were exceptionally low for extended periods of time. This was not usual and during this period I decided for myself to not do any fishing on the river as I felt it would be harmful to the fish living in the river. While I am far from scientifically qualified to back my judgment up with data, I care about the health of the fish and wider ecosystem that is The River Wandle a great deal. With my limited knowledge decided I would not put any fish under further pressure. I was of course still able to enjoy</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. The 2022 drought event demonstrated the impacts of climate change, with impacts for nature and public water supply. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>



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	<p>walking the river banks and this helped my mental state stay positive during the summer, by simply experiencing the diverse array of birds, insects, flora and fauna that make up The River Wandle environment. It would be a huge tragedy if The Wandle was allowed to experience such pressure on a regular basis.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	
4066	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p>	<p>Our demand management programme involves planning to meter as many customers as we can, as soon as we can, considering the overall deliverability of the programme. All metering that we will undertake will be smart metering, in order to target water efficiency activity in the future.</p>	<p>Changes made are as described in our consideration, with details presented in Section 8 and Section 11</p>
4066	<p>I care about our precious rivers in the south east of England, especially my local river The River Wandle. I regularly fish this river as it is the closest sizable river to where I live in south east London. I took up fishing recently as a method to aid my ongoing recovery from alcohol addiction and depression. The time I spend on the banks of the Wandle are essential to me progressing positively with my battle against negative mental health issues. The Wandle for me is not just a body of water that allows me to catch fish, it provides a positive space for me to collect my thoughts, processes them and take a break from the pressures of life. It is also a very special place that allows me to enjoy the benefits of being surrounded by nature, despite me living in zone 3 of London. I am sure you are aware that the River Wandle is a chalk stream. These types of river are prized assets of our natural world, they should be treated with the respect and care that they deserve.</p> <p>I object greatly to your marketing department sending me printed flyers with my post, informing me to use less water last summer. What was the cost of this campaign? Huge I imagine. I know the money could have been much better spent on upgrading pipes, not ineffective flyers that find their way to a recycling</p>	<p>Thank you for your feedback to this consultation and specifically your concerns around the need to protect and care for our natural environment. A key driver to our draft WRMP is to ensure we can cope with our changing climate and continue to provide a secure water supply, as well as protecting and improving the environment for the long term. We will need to invest to achieve this.</p> <p>Specifically regarding sewage discharges, the discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>bin within 2 minutes of receipt. It also shows just how out of touch Thames Water are with their customers. Social media channels and email campaigns are much more relevant nowadays.</p> <p>I hope you will help me take the action needed. I am fully committed to reducing my impact on the environment when it comes to water usage. Your conscience should tell you that you have a level responsibility to your customers that at the moment you seem to be falling a long way short of in a huge number of ways, not just those that I have mentioned in this email.</p>	<p>climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>In regard to printed flyers to encourage the efficient use of water, our customers have asked that we promote and support them to use water efficiently and we use a range of channels to do this including social media and emails, our customer base is diverse and we need to utilise a range of communication channels to reach all our customers.</p>	
4066	<p>First and foremost Thames Water MUST spend more money on infrastructure and pipe work. I live in SE23. You replaced pipes along our road recently. This is fantastic. We experienced minimal interruption to our water supply, which is commendable. The team who did the work were very hard working indeed. They were extremely professional and did an excellent job. I have no problem with any of your workforce who mend your crumbling infrastructure and pipework. However, almost every week there seems to be a water leak in or around SE23. The traffic chaos and interruptions to our water supply this causes is a minor inconvenience. What really gets me extremely angry and very frustrated is the waste of perfectly clean, drinkable water that flows straight down the drains. These leaks are often not repaired for not just hours, but sometimes left for days and even too often for weeks on end. The wasted water is absolutely disgraceful. I assume this is water taken from rivers like chalk streams such The River Wandle? This is not simply fair. You need to look long and hard in the mirror and ask yourselves is what you give your shareholders really worth the environmental cost, social cost and the cost to local communities, if chalk stream rivers are sucked dry every time we have a spell of a hot weather. Is it worth it to not spending money on upgrading your pipes? This is a fundamental part of your job description, having pipes that deliver water to your customers, surely? Currently, to me, Thames water is like a milk man who smashes their full milk bottles on their customers doorstep then asks to be paid for delivering the milk.</p> <p>Reducing abstractions from the environment is welcome: namely the abstraction</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly,</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets of reduction are to be encouraged.</p> <p>Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres;</p> <p>This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p>	<p>between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years’ performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We’re currently fixing more than 1,000 leaks per week across our network meaning that, on average we’re fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>The timeliness of fixing leaks Some leaks take us more time to identify, locate or fix than we would like. Parts of our plan aim to reduce leakage though improvements in infrastructure, this should lead to less frequent incidents of this kind. Additionally, we have set out further leakage reductions that can be made through "innovations" to leakage management. These innovations are</p>	



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		<p>representative of improvement to technique, systems, and information. Our hope is going forward our repair teams will have the information they need to fix leaks quicker and reduce disruption. We are also using our smart meter data to identify continuous flow on our household and non-household meters and use this to identify leaks and contact customers to help fix customer-side leaks and possible internal wastage issues (leaky loos, urinals, leaking taps & showers). We are the first wholesaler to do this for businesses.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	



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		<p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes. In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the</p>	



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		<p>end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Innovation</p> <p>We are always on the lookout for innovative technologies, particularly for the point at which they become commercially viable. Then we can update our assessments in future planning cycles. However, we cannot plan on the basis that a new technology will come along.</p> <p>The innovative options we currently have in the plan are based on current industry practices that have not yet been fully realised for Thames. These include:</p> <ul style="list-style-type: none"> - Price Tariffs implemented to encourage customers to be more conscious of their water use. - Further advances in district metering our areas to aid with leakage reduction and, potentially, new pressure management. - Advances to current leakage control and mains replacement activities, to identify, locate, and fix/replace leaky pipes quicker. - Commercial Innovation will be focused on maximising the benefits of smart meter data to help identify innovative ways to reduce demand and help businesses save water and money on their bills. This will include continuous flow alerts and segmentation, as well as identification of discretionary water use opportunities. 	
4066	<p>It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the</p>	<p>The environmental assessment completed to date have identified the significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The water being discharged will be of</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date</p>

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	<p>freshwater ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology including invertebrates and algal blooms will continue, which will include experiments of introducing recycled water into sampled River Thames water to see how algae will develop.</p>	<p>shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4067	<p>I write with regard to the Water Resource Management Plan for transferring water from the western half of the country across to London and the South East. In particular, I wish to express my support for the alternative whereby water is transferred using the existing Cotswold Canals system, rather than by means of a new underground pipeline additionally involving the construction of a reservoir at Abingdon.</p> <p>As a member of the Cotswold Canals Trust having grown up in the area, I clearly have a natural preference for the canal to be used for the transfer of water, not least because this would hasten complete restoration. However, leaving this aside, it must be clear even to the unbiased observer that the canal option has myriad advantages over a pipeline.</p> <p>Firstly, there is the time aspect -it seems that the option involving the construction of a reservoir and pipeline would not be up and running until 2040 at the earliest, and even this is questionable in view of the many objections to the construction of a reservoir at Abingdon. Using the canal, on the other hand, would entail a far shorter timeframe, principally requiring the installation of relatively short lengths of pipe and pumps adjacent two steep sections of the canal between Stroud and Sapperton, and moreover with no reservoir necessary.</p> <p>Secondly, the costs, where the pipeline option is claimed to be cheaper than the canals. It seems, however, that only tconstruction costs have been taken into consideration, and while seen in isolation it may very well be that it is cheaper to construct a pipeline and reservoir than to restore a canal and install the required lengths of additional bypass pipes, this ignores the resulting value to the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>environment, to society and to the local economy resulting from the additional footfall and boat traffic resulting from a regenerated canal connecting the River Thames and River Severn. An underground pipeline, on the other hand, offers no additional benefits.</p> <p>It would seem clear to me that a restored canal serving both recreational and water transfer purposes, has far more to offer than a pipeline.</p>	<p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4068	<p>I care about our precious rivers in the south east of England, especially my local River Wandle, that has brought much joy to escape the busy centre and connect to nature, spotting wildlife such as my first kingfisher since moving to London last year. I have also learnt it is a chalkstream, a rare habitat!</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. Locally, I have seen low flows, and discharged sewage which led to dead fish and fungus in our rivers. I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p> <p>As a Thames Water customer, I am urging you to consider my points below in the reviewed plans.</p> <ul style="list-style-type: none"> • Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged. • It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable; • Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage 	<p>Thank you for your response to the consultation.</p> <p>We are committed to protecting the environment and our rivers. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 MI/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. We will continue to investigate the abstraction reductions mentioned primarily with the Environment Agency, with our revised draft plan continuing to support the high levels of improvement aligned to EA expectations.</p> <p>In terms of the Teddington Direct river Abstraction conceptual design, the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Teddington scheme would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards.</p> <p>A Water Quality Assessment for the Teddington DRA scheme has been completed which concluded that the scheme will have a negligible impact on the majority of WFD chemicals, EQSD chemicals and Olfactory water quality. There are some WQ parameters which require further assessment to understand the level of additional treatment that might be required to ensure</p>	<p>The representation provides useful information that primarily aligns with our revised draft plan, although no direct changes have been required due to it.</p>



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	<p>by 2030.</p> <ul style="list-style-type: none"> • Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres; • This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. 	<p>that the discharge water quality is appropriate. This work is still underway.</p> <p>As highlighted in the WRMP, the Teddington DRA scheme is a drought resilience scheme. It would not be fully operational all the time. We would need agreement from the Environment Agency to use the scheme and this would be following an extended dry period when the amount of water in the river and the water stored in reservoirs reaches a set threshold. Typically, the scheme would operate late summer through to late autumn on an intermittent basis. One of the objectives of the scheme is to minimise depletion of flows in the River Thames and reduce the impact of abstractions at times of low river flows. Even when operational however it will not be continuous. Our current prediction is that as a worst case in a 1:500 year drought the scheme would be operational up to 12 days every 30. Operation over a 47 year period is shown on page 16 of the scheme report here – Final-G2-report---LWR.pdf (thameswater.co.uk)</p> <p>A sweetening flow may be required when the treatment plant is in a stand-by mode. This ensures the processes in the treatment plant at Mogden remain ‘active’ and available when a scheme is required. We have assumed that this sweetening flow will be at a maximum of 25% of the system's capacity. We will continue to assess what the best reduced flow is during our design phase and will try to reduce this as the design develops. At all times it will produce higher quality water that will improve the water quality within the Thames Tideway when it is discharged. Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>We’ve looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We’ll need a</p>	



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		<p>combination of measures to address the shortfall.</p> <p>The new reservoir – the South East Strategic Reservoir Option (SESRO) – expected completion date is 2040. Building a reservoir on this scale is an ambitious and complex project, which requires significant stakeholder engagement and a thorough planning process. Due to the scale of the project, it will take a significant amount of time to build. Planning consent for construction is planned by 2030 and water would be available by 2040. This timeline is as quick as practicably possible whilst following the national planning process and ensuring that all environmental and engineering studies are carried out with sufficient rigour to satisfy ourselves and all stakeholders.</p> <p>We plan to make every drop count - We'll plug around 50% of the shortfall by tackling leaks, we have set a target to halve leakage by 2050 and working with our customers and partners to make every drop count – including installing a further 1 million smart water meters in customers' homes.</p> <p>We're working with all our customers to encourage them to use water wisely. We've installed almost 700,000 smart water meters so far, and over 50% of our household customers now have a water meter. We will continue to fast track our metering programme Our work has shown that having a meter can help you use around 13% less water. We look to achieve 80% of households with a meter in London and 93% in the Thames Valley, and placing 'bulk' meters on the whole building where purpose built or split into flatsto understand usage where fitting a meter to each individual property is not possible.</p> <p>We fully support the government's plans to introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits.</p> <p>In the draft WRMP24, we forecast that water use in our supply area would fall to 123 l/h/d by 2050. Updated guidance now sets a policy target of 110 l/h/d</p>	



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		<p>by 2050. Our revised draft plan reflects this target (and others set for non-household demand, leakage and distribution input per person) by including additional company and government-led demand management measures. We continue to engage with government and regulators on the 110 l/h/d target and how best to manage the security of supply, should this policy target not be achieved.</p> <p>Thames Water is offering advice to households on how to limit their water usage and help to prevent any future shortages. This includes simple routine changes such as taking shorter showers, reducing use of the garden hose and turning taps off when brushing your teeth.</p>	
4070	<p>I wish to protest about Thames w After wishing to dump treated sewage in river Thames around Twickenham.The river is precious and it's a worry that this is going to happen.Please think again .Thames water has not been looking after our water very well and this I needs to be be tackled.Please act in a responsible manner keep Our rivers clean !!</p>	<p>Thank you for you response to the consultation. Protecting and enhancing the environment is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p>	<p>After reviewing your representation, there is no change to our plan.</p>
4071	<p>I am a Thames Water customer and have just read, with concern, that the recent draft proposals for alleviating severe water shortages (as in 2022) do not include any reference to the restoration, and use, of the Thames-Severn Canal. My understanding is that this could provide 300 million litres of water a day from the Severn to the Thames and also provides many other benefits without causing any loss to the countryside. I am puzzled as to why this has not been included in the proposals.</p>	<p>Thank you for your feedback. The Cotswold canal option has been considered as an option but was rejected against the building of a pipeline. See SoR Appendix J Severn Thames Transfer response</p>	<p>After reviewing your representation, there is no change to our plan.</p>



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4072	<p>I would like to voice my opposition to the proposed water pipeline to transfer water from the Severn to Thames basins. Such a pipeline along one of the proposed route from Deerhurst to Culham would be lengthy, expensive, highly disruptive during construction and of no benefit to the communities through which it passes.</p> <p>Instead, water transfer should take place by using the Thames and Severn canal, restored for navigation and modified minimally to carry the necessary flow of up to 300M litres per day. This would be cheaper, emit less carbon dioxide to deliver and be less disruptive to build as the route already exists with many road bridges in existence. -Furthermore, such a canal restoration would be quicker to deliver and bring positive benefits to the communities through which it passes as well as enhance biodiversity.</p> <p>It would appear that the Thames Water present pipeline proposal has not adequately considered the longterm whole life scheme costs with regard to pumping to a higher level compared to that which would be necessary for a route using the lower Sapperton canal tunnel. For much of the canal route on the eastern side of the tunnel, little or no work is required above that needed to clear vegetation, as the water can flow by gravity alone to the River Thames.</p> <p>A route using the canal has the widespread support of many different interests and can be delivered far quicker than a lengthy pipeline with less design, construction costs, and less embodied carbon dioxide emissions.</p> <p>Please amend the water transfer proposals to ensure that the existing canal route can be used for water transfer.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4073	<p>Reference the Abingdon reservoir plan to satisfy the pressing need to improve water supplies to London. (SESRO)</p> <p>The aims of any scheme should be measured -on 4 primary principles: 1. Given the urgency of the need, the -ability to deliver the project in a reasonable timescale.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>2. The long term cost 3. The social benefits -to the community 4. Preservation and improvement of -the environment, including carbon related issues.</p> <p>The Abington reservoir proposal falls down on all these criteria. 1 The idea of a reservoir has been around for 40 years without being realised. The present plan is facing considerable local opposition and even if planning permission were to be granted, -would not be deliverable until 2040. 2. The cost of -the reservoir is likely to be huge, given its complex brief and a requirement to offset the -environmental damage caused by its creation. 3. It would bring little, if any, benefit to the local community -indeed, there is considerable local opposition to it. - 4. It would bring -little, or no, positive environmental benefit. On the contrary, its construction would involve considerable environmental damage,.</p> <p>There is one obvious alternative the Cotswold Canals Severn Thames Transfer option, which would use the existing water courses. i.e water fed from Lake Vrnwy in mid Wales to the River Severn then via the Cotswold Canals to the Thames and London. Having been acquainted with the restoration of the Cotswold canals over the years, we make the following points.</p> <p>1. Most of the work required on the Canals has already been successfully completed, thanks largely to -a combination of support by statutory bodies and professional and voluntary labour. The final step to complete the link between the two rivers is calculated as achievable within 12 years. This would restore - both a valuable national resource and solve the problem of the water shortage in London.</p> <p>2. Given its local, economic and environmental advantages, reliable NATIONAL -studies have put the value of the completed canal work over 80 years at £800 million. This is -10 times the estimated value suggested by proponents of the 2 alternative plans for improving the water supply to the capital. (reservoir and pipeline). This £800 million figure easily outweighs the financial cost involved.</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	



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	<p>3. Improvements to the canal infrastructure -to date are already bringing economic and social improvements to communities along its length who have responded to this restoration of our heritage with huge enthusiasm and practical support, as well as providing access for those from further afield.</p> <p>4. Using the canal to deliver water to the capital would build on an existing network that would incur no damage to the environment, no digging up of vast tracts of land. -On the contrary, it would build on the work to date which, as part of its brief, is already protecting vulnerable species and improving the physical and ecological environment along its length.</p> <p>Finally, the motto ' if it ain't broke, don't fix it' has much to commend the use of existing well placed existing water resources to solve a water problem.</p>		
4074	<p>I went to the 'CCT Water Transfer Road Show' at Bingham hall Cirencester yesterday. Very interesting, thanks to Thames Water</p> <p>However, I disagree with the preference shown for the Pipeline option. I feel the Canal option is far better. I was told by the official on duty (who was very helpful) -that the Pipe line option is 25% cheaper than the Canal option. Can this really be the case? Does that include the full restoration of the canal? If it does then surely the Canal option at a near 25% uplift is well worth the extra? Also I would have thought the Canal Trust / Gloucester Council / public Contribution might be prevailed upon to cover the extra 25%..... Or I wonder if TW are worried about about 'thinkingoutsidethebox' ? Again no house points for a pipe, but lots for a bit of creative thinking!</p> <p>That way, Thames Water get lots of house points for zero cost !!!</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>(PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4075	<p>I care a great deal about our local rivers, especially those nearest to me the Graveney and the Wandle. In particular I spent many pleasurable hours during lockdown in 2020 running by the Wandle.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource locally.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now and for future generations, as rivers are our lifeblood.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>
4075	<p>· Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<ul style="list-style-type: none"> · Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030. · Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres; · This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. 	<p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and</p>	



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		<p>commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow</p>	



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		<p>alerts from our smart meter data, enabling businesses to self fix. Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data. We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
4075	<p>· It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>The environmental assessment completed to date have identified the significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The water being discharged will be of a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology including invertebrates and algal blooms will continue, which will include experiments of introducing recycled water into sampled River Thames water to see how algae will develop.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4076	<p>I care about our rivers in the south east of England, especially my local river Wandle, a chalk stream, which is regularly polluted by yourselves from Beddington Works or from one of the many factories and industrial estates along</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is</p>



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	<p>the course. I am a fisherman and have fished many rivers in the SE (including the Wandle) and also the coastline and its beaches.</p> <p>I note the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our dwindling water resource.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood.</p>	<p>supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>included in Section 5 of the rdWRMP</p>
4076	<p>· Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p>	<p>Our demand management programme involves planning to meter as many customers as we can, as soon as we can, considering the overall deliverability of the programme. All metering that we will undertake will be smart metering, in order to target water efficiency activity in the future.</p>	<p>Changes made are as described in our consideration, with details presented in Section 8 and Section 11</p>
4076	<p>· The Plan does not address waste water treatment. Treated waste water is part of the life cycle chain and properly treated waste significantly helps preserve water stocks. Why is Waste Water not mentioned in this Plan ?</p> <p>· Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.</p> <p>· Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres;</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>· Is Thames Water doing enough to target very high water users. Are there approaches to leakage management that Thames Water can learn from others?</p> <p>Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p> <p>I hope you will help us take the action needed. I specifically ask you to include Waste Water treatment in this Plan.</p>	<p>wastewater-management</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Innovation We are always on the lookout for innovative technologies, particularly for the point at which they become commercially viable. Then we can update our assessments in future planning cycles. However, we cannot plan on the basis that a new technology will come along.</p> <p>The innovative options we currently have in the plan are based on current industry practices that have not yet been fully realised for Thames. These include:</p> <ul style="list-style-type: none"> - Price Tariffs implemented to encourage customers to be more conscious of their water use. - Further advances in district metering our areas to aid with leakage reduction and, potentially, new pressure management. - Advances to current leakage control and mains replacement activities, to identify, locate, and fix/replace leaky pipes quicker. - Commercial Innovation will be focused on maximising the benefits of smart meter data to help identify innovative ways to reduce demand and help businesses save water and money on their bills. This will include continuous flow alerts and segmentation, as well as identification of discretionary water 	



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		<p>use opportunities.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	



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4076	<p>· It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>The environmental assessment completed to date have identified the significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The water being discharged will be of a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology including invertebrates and algal blooms will continue, which will include experiments of introducing recycled water into sampled River Thames water to see how algae will develop.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4077	<p>I care about our precious rivers in the south east of England, especially my local rivers, the Thames, Hogsmill, Wandle and Beverley Brook. I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. I believe more action is required to protect our rivers and water resource for communities and wildlife now, and for future generations.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>



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4077	<p>I am glad you plan to reduce abstractions, particularly at Epsom from the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. I would like to encourage the most ambitious targets.</p> <p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p> <p>Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres.</p> <p>This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management where Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes. In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data</p>	



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		<p>on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first.</p> <p>To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First.</p> <p>We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
4077	<p>It is also great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme is a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable.</p>	<p>The environmental assessment completed to date have identified the significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The water being discharged will be of a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology including invertebrates and algal blooms will continue, which will include experiments of introducing recycled water into sampled River Thames water to see how algae will develop.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water</p>



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			Resource Management Plan while further work is undertaken.
4078	<p>The UK has the technical, regulatory and financial resources to provide resilient water -infrastructure for its current and future population. It is clear that an acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this. As a Thames Water customer, I am urging you to consider my points below in the reviewed plans. I also hope that DEFRA will fight to ensure government steps up to its responsibility of looking after the public's wellbeing by establishing transparent reporting and accountability.</p>	<p>Thank you for your comment. We agree that the UK has technical, regulatory and financial resources to provide a resilient supply of water to current and future population. Our draft Water Resources Management Plan sets out to accelerate action to protect water resources and the environment through an ambitious programme of reducing demand, developing new water resources and reducing current unsustainable abstractions.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4078	<p>I care about our precious rivers in the south east of England, especially my local rivers, the Mole, Wey and the Thames.</p> <p>I spend alot of time cycling and walking along sections of these local waterways throughout the year. I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>



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4078	<p>Locally, I have witnessed too many instances of flooding due to (repeatedly) broken pipes and faulty drainage arrangements. Water quality is also a concern as sewage overflows and damaging runoff continue to impact health of our waterways, and dependent vegetation and wildlife.</p> <p>I am especially concerned about Thames Water plan to release treated sewage back into the Thames in conjunction with the Tedding abstraction scheme. This will result in rising water temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife.</p>	<p>Thank you for your response to the consultation. Both protecting and improving the ecological health and water quality of our streams and rivers is central to our Water Resource Management Plan (WRMP).</p> <p>The Teddington Direct River Abstraction (DRA) scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged. Protecting and enhancing the river environment and ecology is central to our work to develop Teddington DRA. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it.</p> <p>Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application.</p> <p>The abstraction structure has been designed to be safe for swimmers and other water users. The quality of water discharged will not increase health risks for water users. Our current level of treatment aims to ensure we meet the environmental quality standards set to protect human health and the environment.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>We have worked closely with the Port of London Authority to investigate navigation and have concluded that there would be no impact to navigation or amenity use of the River/Tideway when the scheme is operational.</p> <p>With regards to leakage, we're investing significantly to tackle the amount of water that is lost from our water pipes. We remain committed to reducing total leakage by 20% by 2025, and in our draft plan we have committed to halve the amount of water we lose through leaks by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	
4078	<p>In Claygate there are several locations where leaks have been repeatedly repaired, along with necessary refurbishing of road, only to have "new" break in the same place within ca 12 months. As the root cause of the problem is not adequately addressed, more resources are wasted to patch up, again and again. This makes no sense and is an avoidable waste.</p> <p>Furthermore, Thames's water use reduction plans for both residential and businesses lacks ambition. While other companies in the southeast aim to meet government target of 110 litres per person per day, Thames proposes a target of 123 litres (from current 141 litres). Why is this deemed sufficient? Targeting of high water users and leakage problems have been better addressed by other sector players so it is unclear why Thames is lagging. Increased knowledgesharing and cooperation across diverse interconnected disciplines and infrastructures could be expected to improve outcomes.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>The timeliness of fixing leaks Some leaks take us more time to identify, locate or fix than we would like. Parts of our plan aim to reduce leakage through improvements in infrastructure, this should lead to less frequent incidents of this kind. Additionally, we have set out further leakage reductions that can be made through "innovations" to leakage management. These innovations are representative of improvement to technique, systems, and information. Our hope is going forward our repair teams will have the information they need to fix leaks quicker and reduce disruption. We are also using our smart meter data to identify continuous flow on our household and non-household meters and use this to identify leaks and contact customers to help fix customer-side leaks and possible internal wastage issues (leaky loos, urinals, leaking taps &</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>showers). We are the first wholesaler to do this for businesses.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23</p>	



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		<p>have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is</p>	



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		<p>such that demand management and resource development have to proceed in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4078	<p>A reset of priorities should be considered including the proposed reservoir near Abingdon.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes.</p>	
4081	<p>I care about our precious rivers in the south east of England, especially my local river, The Thames.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. Locally, I have seen sewage being pumped into our rivers for hours on end, making the water unsafe for leisure use and our wildlife.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>
4081	<p>Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.</p> <p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p> <p>Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres;</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p>	<p>of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%.</p> <p>Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased</p>	



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		<p>water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes. In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix. Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data. We will clarify our NHH plans in the final WRMP up front to highlight the scale</p>	



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		<p>of our programme.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 MI/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
4081	<p>It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>The environmental assessment completed to date have identified the significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The water being discharged will be of a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology including invertebrates and algal blooms will continue, which will include experiments of introducing recycled water into sampled River Thames water to see how algae will develop.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4086	<p>expand capacity of existing sewage works. stop dumping sewage into the waterways stop deleting the aquifers for the chalk streams pay the high earners in your company less, because they dont earn it, & don't deserve it. Put that money back into the company.</p>	<p>Thank you for your feedback to the consultation. We note your comments.</p> <p>In respect to the discharge of untreated sewage, this is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>In regard to chalk streams, a key driver to our WRMP is to protect and improve the environment which includes stopping abstraction from watercourses where it is determined that the abstractions are unsustainable. We will need to invest in new sources of water to enable this, as presented in our WRMP.</p> <p>Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers.</p>	
4086	FIX THE LEAKS!!!! 24% is lost that way, so fixing the leaks is a sure fire improvement.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is</p>	



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		<p>such that demand management and resource development have to proceed in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4086	<p>The reservoir idea is absolute rubbish. The only investment I would like to see is. You are approaching this the wrong way, imagining the quick fix of this reservoir... it is not a quick fix. It is an expensive white elephant, 10 to 20 years of misery for this area & it will never be carbon neutral. The main thing is my opposition to the locally proposed reservoir. You are acting like it is already decided. We don't want it. We'll be paying for it when you put our rates up & destroy farmland to flood it for your reservoir, yet I see already that other water companies are planning to use the water for their benefit, it is in their proposed plans! This is very underhand. We don't want the mess & local disruption. The roads are bad enough here. You are already in massive debt. This is really poor housekeeping. A great big NO! To the proposed reservoir!</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes.	
4152	<p>After following the progress for the last few years on the various proposals for transferring water from the Severn to the Thames, I am now firmly in favor of the CCST scheme for the following reasons:</p> <p>1. The CCST scheme is the only one that offers any environmental and social benefits to area (and to the nation). We have a well developed canal system in our Country and</p> <p>one thing that is abundantly clear is the wide biodiversity that develops along these waterways which at the same time are used by ourselves as linear corridors for exercise and recreation.</p> <p>With this experience we are able to make realistic estimates of the Financial Value of such waterways and I think (along with IWA and other organization) that the £800 million estimation</p> <p>for the valuation of the completed Cotswold Canal is sensible and should be taken into consideration. There are no similar benefits offered by the pipeline scheme.</p> <p>2. The restoration of the Cotswold Canal is well advanced particularly at the western end and with the right investment could be completed relatively quickly (12 years has been mentioned) providing the fastest method to supply water to the Thames.</p> <p>3. The route of the Cotswold Canal through the Water Park at South Cerny offers additional opportunities for water storage using some of the many gravel extraction sites.</p> <p>4. Bringing water in below Gloucester enables utilization of the output from the Gloucester Sewage Treatment plant.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>I hope these comments are useful to you.</p>		
4153	<p>I would like to support the use of the canal to transfer water from the Severn to the Thames. Canals are used for this purpose in other parts of the country with success.</p> <p>I cannot see why we should use extra energy to pump water to a greater height through a pipeline when a canal route is possible.</p> <p>Neither can I understand why the transfer scheme has to wait until a new reservoir is built.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4154	<p>I oppose the current plan for the Abingdon Reservoir, it will be a giant carbuncle on the Oxfordshire landscape, Thames Water need to fix leakages and stop dumping untreated sewage into our Rivers & Streams and take action on the</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the</p>	<p>We have provided information in response to your comments,</p>



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	<p>SevenThames transfer then later the Grand Union Canal Phase 2 before building a Giant Reservoir 30 metres High that will have no facilities for the local population.</p>	<p>River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have</p>	<p>there are no changes as a result of your representation.</p>



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		<p>collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we supply is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we've got a plan to fix it. We remain committed to reducing total leakage by 20% by 2025 and as part of our draft WRMP we're aiming for a 50% reduction by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment. We have examined scenarios to achieve leakage reduction sooner (and later), but the planning challenge we face is such that demand management and building new supply resources will need to proceed in parallel. To accelerate leakage would be very costly and as well as cost, much of our water network is under London and it would therefore be very disruptive to the population and businesses if we were to dig up too much of it at once. Tackling leakage is an important part of our future plans but it will not solve the water challenge we face on its own. We also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water.</p> <p>The landscape impacts of the proposals have been assessed in outline, as part of the Strategic Environmental Assessment (SEA) of the draft WRMP alongside a wide range of other environmental factors. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. Therefore, these potential impacts have already been taken into account in weighing up the pros and cons of the SESRO options compared to alternatives. We have started to explore how the significant landscape impacts might be managed and mitigated when the scheme is designed as part of our Gate 2 submission to RAPID. Section 3.4 of our main report to RAPID (and figure 3.1) explain some of the key landscape issues and how we have taken these into account in deriving an indicative landscape master plan for the 150 Mm3 SESRO option. We will continue to develop our thinking on these issues, in close liaison with the</p>	



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		<p>local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>As shown by our Gate 2 submission to RAPID (Section 3 and particularly Figure 3.1) we are allowing for extensive recreational activity associated with the new potential reservoir. This includes options for land-based recreation, such as walking, cycling and horse-riding linked to the extensive public rights of way network around the site, educational opportunities, particularly around the possible wetland creation to the western side of the site, and managed water-based recreation such as a sailing club. These aspects are all built into our appraisal of the relative costs and benefits of the options and are similar in nature to the recreational opportunities offered at other Thames Water reservoirs such as Farmoor or Walthamstow Wetlands.</p>	
4155	<p>The water companies including Thames Water are not to be trusted. Their management of our water supplies is woefully inadequate. They have clearly demonstrated in the past that they have no substantive commitment to this country, its interests and needs, but are simply concerned with the money they can get out of it. Look at the bonuses they pay their top executives. We left the EU, so we were told, to 'get back control', so let the government response in this instance be demonstration of that notion. The government can act and prevent this plan going through. I urge the government to act in the interests of the common good and our already endangered environment to stop this proposal now before it starts to become reality.</p>	<p>We note your dissatisfaction with the water sector, Thames Water and the proposed Teddington Direct River Abstraction scheme.</p> <p>Thank you for your response. We are working hard to rebuild trust with our customers but recognise for some, this will take time. In March 2021, Thames Water launched its turnaround plan to address operational challenges and improve performance and we have made progress. We have always been clear it won't be quick or easy, however, the results of the first year are encouraging despite a challenging and changing environment. We all want to see significant improvements quickly but are determined to make the needed changes in a sustainable way to make a real, positive difference for our customers today and into the future. We operate within a strict economic and environmental regulatory framework and government and regulators will hold the company to account to deliver against its commitments.</p> <p>Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers.</p> <p>We have a statutory duty to prepare a WRMP to ensure we can continue to provide a secure and sustainable water supply, whilst protecting the environment. We engaged with regulators, stakeholders and our customers throughout the development of the draft plan and have ensured the plan complies with legal requirements and the regulatory guidelines. We appreciate that some consultees do not like aspects of our draft plan but we do need to progress measures to ensure we can continue to provide a secure water supply for the next 50 years.</p>	
4155	<p>I am utterly horrified by the proposals by Thames Water to remove millions of litres of water every day from the Thames at Teddington and replace it with sewage. They are already sending processed sewage down the river every morning so this plan would make an addition to that deleterious action. It is against all the principles of good environmental management and a prime example of short termism.</p>	<p>Thank you for your response to the consultation. The Teddington Direct River Abstraction scheme will replace the river water with tertiary treated water. The level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames, downstream of Teddington Weir.</p> <p>The treatment parameters would be defined by the Environment Agency, but our current proposal is a level of treatment that balances the spatial constraints that we have at Mogden Sewage Treatment Works, best value for our customers and water quality.</p> <p>We feel that our current proposal effectively balances these factors without significantly increasing the risk of environmental impacts. This scheme, although, partly based at Mogden, has not physical pathway to discharge any type of sewage into the river.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4156	<p>I am also concerned whether Thames Water has taken into account just how much cleaner and healthier the river is now, compared to its previous "ecologically dead" state. There are fish, birds and other wildlife living in and by the river now -we see them all the time when we swim. For Londoners generally, the river is a severely underused source of recreation -instead of filling it with</p>	<p>All of our environmental assessments are undertaken using the most up to date baseline information available. As such, our consideration is that assessments and monitoring are undertaken considering an up to date baseline condition.</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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	<p>treated sewage, I'd love to see us all, including Thames Water, push an agenda for Londoners to use and love their river!</p>	<p>All of our strategic resource options (including the Teddington Direct River Abstraction scheme) are being taken through a multi-stage (known as a "Gated") process to better understand the benefits and impacts of the different schemes, with the work getting more detailed as we progress through these stages. Our regulators, including the Environment Agency, have been fully engaged throughout this process.</p> <p>Following investigations undertaken for the "Gate 2" submission, and following discussion and representations from the Environment Agency on our dWRMP24, our consideration is that 75 MI/d is the largest promotable size for the Teddington DRA scheme for consideration in WRMP24.</p> <p>Environmental assessments undertaken to date lead us to consider that there is no reason that a 75 MI/d scheme would not be feasible, and as such a 75 MI/d Teddington DRA scheme is included in our preferred programme.</p> <p>As a matter of course, environmental assessments will be undertaken (with an increasing level of detail) through to the submission of our "Gate 3" documentation, and the necessary environmental assessments would be undertaken as part of planning processes. If it is found that the Teddington DRA is not environmentally acceptable then the scheme will not be developed, and we will adopt our alternative option for delivering 1 in 200-year resilience, Beckton Water Recycling.</p>	
4156	<p>I am a resident of West London, and I am shocked to hear about Thames Water's plans to replace river water with treated sewage upstream of Teddington Lock. This section of the river is a very busy recreational area - there are lots of boaters, kayakers and stand-up paddleboarders, and all year people are swimming in the river. I am a member of a very active swimming group and every single day of the year, someone swims in the river just off Burnell Avenue.</p>	<p>The development of the design and understanding of the potential impacts is following a regulatory process setup by Ofwat.</p> <p>At this early stage we have not yet completed a full environmental impact assessment.</p> <p>The dataset is still being captured through a water quality monitoring programme. Once this is completed it will include an assessment of the risk to human health. We will also be undertaking a recreation assessment to further our understanding of the use of the river at this location and the potential impact on the users.</p> <p>As the scheme progresses, we will continue to follow the regulatory process</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water</p>



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		on health assessments and will share the initial findings through scheme engagement and consultation later in 2023.	Resource Management Plan while further work is undertaken.
4157	<p>I am writing to support the use of the C to transfer water from Lake Vyrnwy to the Thames.</p> <p>Using the Cotswold Canals to transport water from the Severn to the Thames would appear to offer the best and speediest solution to the problem of water supplies to the South East of England. There would be gains on the environmental front especially, which the Government is currently putting a high value on. It would also fulfill the requirement for people to have better access to open spaces and water which has been demonstrated as being of significant value for mental health. A pipeline would provide neither. There is no proof that this scheme would cost more than the option of a pipeline from Deerhurst.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4158	<p>I believe I understand your motivation.</p> <p>Thames Water is a private company so its primary objective is to make money</p>	<p>The purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. We have developed our draft</p>	<p>We have provided information in response to your comments,</p>



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	<p>for its shareholders.</p> <p>As it happens, the reservoir is the only option that will increase Thames Water's revenues and allow it to charge its customers more money for services rendered.</p> <p>And I understand that it would cost Thames Water a fortune to significantly reduce the obscene amount of water leakage... a shareholder NO NO.</p> <p>Finally, imagine what a wonderful target such a large reservoir would make for potential TERRORIST ACTIVITY.</p> <p>With modern technology, for example drones, anyone could dump vast quantities of toxic chemicals into such a sitting duck.</p>	<p>WRMP in accordance with legal requirements and regulatory guidelines and have completed detailed work to determine the best value plan for our customers. We have presented this in our draft WRMP. A reservoir is one of the schemes included in our draft WRMP.</p> <p>Our shareholders have not been involved in the development of the draft WRMP . Our shareholders are long term investors, they are underwriting a turnaround plan to prioritise investment in improving service for customers and to protect the environment that will see us invest £1 billion more in the network than we will receive from bills and this year they have committed £500m of new equity. Furthermore they have not taken a dividend for five years (since 2017).</p> <p>The investment in new water infrastructure such as the reservoir is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>In response to your concern about terrorism, we currently operate several large reservoirs as part of our water supply network for London and the Thames Valley including King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury and manage issues regarding national security in accordance with government requirements.</p>	<p>there are no changes to the plan as a result of your representation.</p>
4158	<p>I wish you to note that I strongly object to the proposal to build an enormous, aboveground reservoir in the Thames Valley. This is a bad idea on so many counts I shall not put you to sleep by covering them all.</p> <p>Next, think of the IMPLEMENTATION TIME, COST and ENVIRONMENTAL COST of such a huge reservoir.</p> <p>The alternative plan to enable Water Transfer from the Severn to the Thames is not only several years quicker to implement, but it is also cheaper, more flexible</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>in meeting future demand, and much less environmentally damaging.</p> <p>The last point covers such a long list I would recommend that you consult GARD at www.abingdonreservoir.org.uk .</p> <p>As I said above, I don't want to put you to sleep; it really is a long list.</p>	<p>that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
4159	<p>I am writing in support of the proposed Cotswold Canals SevernThames Transfer (STT) scheme.</p> <p>The -Cotswold Canals STT option is environmentally friendly, sustainable and makes excellent use of existing infrastructure including the Sapperton tunnel which will avoid pumping over the top of the Cotswolds. Restoration of the</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>remaining length of the canal to connect with the Thames will provide great value to local communities and canal users.</p> <p>It is a matter of concern that transferring water from the Severn to the Thames by means of a pipeline all the way is preferred over the Cotswold Canals STT option. It would seem that the plan fails properly to address the best value criteria.</p> <p>There is evidence that the monetised value of the economic, social and environmental benefits of the Cotswold Canals STT has been seriously underestimated. When these benefits are taken fully into account the overall cost benefit favours the canal option over a buried pipeline which offers no such natural capital benefit.</p> <p>Given the pressing shortage of water in the South East and the uncertainties of climate change it is difficult to understand the prioritisation of a new reservoir in Oxfordshire over the transfer of water from the Severn to the Thames (STT). A Cotswold Canals STT transfer scheme could deliver 300 Ml/day compared with only 185Ml/day for the reservoir.</p> <p>The Cotswold Canal STT scheme would -have a much shorter construction leadtime than the reservoir. The STT scheme would also attract significantly more public support in contrast to the major objections that the reservoir faces.</p> <p>Other proposals for water resource development including water reuse and desalination plants at a comparable scale would be very costly to deliver particularly in terms of their energy consumption. Furthermore they deliver virtually no natural capital benefits.</p> <p>My overall impression is that the authors of the draft WRMP24 plan have been constrained by traditional approaches to water resource planning, whereas the Cotswold Canal STT offers a unique opportunity for a different approach which genuinely delivers best value for the whole community.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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4160	<p>I am writing to express my views concerning plans for the SevernThames water transfer debate. I urge you to adopt the Cotswold Canals proposals for a number of reasons:</p> <p>It will be a much shorter implementation time than pipeline and reservoir options.</p> <p>While it may be more expensive initially, in the longer term studies suggest that the canal option will benefit the environment and provide a valuable opportunity for recreation and outdoor activities.</p> <p>It eliminates the need for a massive reservoir, which requires a great area of land in a valuable part of the country, while being very slow to construct.</p> <p>Previous consultations have shown considerable support for the use of the Cotswolds Canals transfer scheme. Please do not ignore this swell of opinion.</p> <p>Therefore I urge you to support the Cotswolds Canals transfer scheme in your forthcoming decisions.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4161	<p>I wish to make known my support for the above project option to move much needed water to the south east of the country. The requirement for this resource is now as the past year has demonstrated.</p> <p>This project has much to recommend it in both speed of completion, particularly</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>over the reservoir option, AND the creation of a wonderful public amenity and wildlife corridor.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4165	<p>I attended the consultation in Richmond on Monday, 16th January. I would like it put on record that I think the proposal is an extremely bad idea. why have there been no consultations in Twickenham and Teddington?</p>	<p>We note your comment. We have received and responded to detailed comments raised by organisations and individuals in relation to the scheme in this document. We held further community events - an event at Twickenham and a webinar - during the consultation period and have continued engagement with local organisations since this time. If the scheme is included in the final WRMP it will then progress through planning and there will be multiple opportunities for scheme-specific engagement and consultation. We would like to reassure you that we are committed to working openly and transparently with all stakeholders, and community engagement and consultation is an important part of this. We have recently appointed a dedicated engagement manager for the scheme which will help to ensure we engage effectively with the local community going forwards.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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4165	<p>I would suggest that you stop paying your shareholders dividends and your executives bonuses for the time being and use the money to fix the existing system with teams of contractors that are employed full time by Thames Water so that they understand where the problems actually are when they come out to fix them. I think it is astonishing that you use outside contractors. Time and time again, residents have to point out what needs doing -the outsourced contractors are very often clueless and misinformed.</p> <p>By your own admission, in the real time maps that you have produced, raw sewage is already being pumped into our rivers for hundreds and hundreds of hours. What is going on?</p>	<p>We note your comments regarding the use of contractors, these are noted but are beyond the scope of this public consultation.</p> <p>Our shareholders have not taken a dividend for five years (since 2017). They are underwriting a turnaround plan to prioritise investment in improving service for customers and to protect the environment that will see us invest £1 billion more in the network than we will receive from bills and this year they have committed £500m of new equity.</p> <p>Thames Water's CEO and CFO chose not to take a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing an eight-year turnaround plan to transform Thames Water performance for customers.</p> <p>In terms of storm overflows, the discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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4165	<p>Thames Water need to fund the mending of all burst pipes and the fixing of inadequate systems. (Living in Strawberry Vale TW1 4RU, I have first hand experience of a lack of joined up thinking when it comes to sorting sewage leaks and problems with flooding.) Why instigate another pipe system that could potentially be beset with more problems? When you are dealing with sewage treated or otherwise, any leaks are hazardous to health and safety, and the environment.</p> <p>Finance a public awareness campaign which drums the message home that water is a precious and finite commodity (as we are beginning to realise with energy). Then we will use more wisely, stop wastage and thereby you won't need to take the river water.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>The timeliness of fixing leaks Some leaks take us more time to identify, locate or fix than we would like. Parts of our plan aim to reduce leakage through improvements in infrastructure, this should lead to less frequent incidents of this kind. Additionally, we have set out further leakage reductions that can be made through "innovations" to leakage management. These innovations are representative of improvement to technique, systems, and information. Our hope is going forward our repair teams will have the information they need to fix leaks quicker and reduce disruption. We are also using our smart meter data to identify continuous flow on our household and non-household meters and use this to identify leaks and contact customers to help fix customer-side leaks and possible internal wastage issues (leaky loos, urinals, leaking taps & showers). We are the first wholesaler to do this for businesses.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising</p>	



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		<p>campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	
4165	<p>If the treated sewage that you are thinking of replacing the river water with is unfit for drinking (as I was told by the TW representative at your consultation) why is it okay for animal and plant life in and around the river?</p>	<p>Thank you for your response to the consultation.</p> <p>The water utilised for drinking water production falls under a different set of legislation than that covering environmental discharges (The Water Supply (Water Quality) Regulations 2016 (England)). Drinking water is self-evidently treated to a far higher standard than that required by the environmental legislation covering discharges to rivers.</p> <p>The Teddington DRA scheme proposes discharging recycled water into the freshwater section of the River Thames upstream of Teddington Weir, requiring a greater level of treatment than would be required if the water were to be discharged into the Tideway section of the River Thames, downstream of Teddington Weir.</p> <p>The Environment Agency would determine the discharge parameters, but as a minimum we would expect the addition treatment to include: Dosing to remove excess phosphates; biological sand filters to remove ammonia and suspended solids; and, cloth filters to remove final solids</p> <p>Additional treatment processes would be added as required.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>Protecting and enhancing the environment is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p>	
4177	<p>I am writing to express my support for the scheme transferring water from the river Severn to the river Thames using the Cotswold Canals rather than a pipeline.</p> <p>Cotswold canals have done lots of work over the last few years and the canal will be complete from Saul to Brinscombe Port in about three years time; then a start will be made on the remaining section to the Thames.</p> <p>Using the canal to transfer water as well as for boats is a great way to speed up the restoration.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4178	<p>I support the Cotswold Canals SevernThames Transfer scheme – far more ecological and it encourages community enjoyment.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4179	<p>As the reality of climate breakdown seeps in, people are already making efforts to shower less and more briefly, wash cars less often, convert waterhungry lawns into other forms of gardening, etc etc. Meanwhile, issues like the continued existence of chalk streams hang in the balance.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 Ml/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4179	<p>I write to express my opposition to the building of the new megareservoir. I believe it is a wrong decision to opt for such a destructive "solution" to future water needs (destructive to wildlife and environment, and to human amenity, as well as being emissionsheavy) without having tried every other viable step: reducing leakage, educating the public, even water transfer. A new reservoir is last century's solution. Let's please have some forward thinking!</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>Reducing leakage is a priority for us.</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we supply is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we've got a plan to fix it. We remain committed to reducing total leakage by 20% by 2025 and as part of our draft WRMP we're aiming for a 50% reduction by 2050. This is a challenging and ambitious target and will</p>	



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		<p>require innovative approaches and significant investment. We have examined scenarios to achieve leakage reduction sooner (and later), but the planning challenge we face is such that demand management and building new supply resources will need to proceed in parallel. To accelerate leakage would be very costly and as well as cost, much of our water network is under London and it would therefore be very disruptive to the population and businesses if we were to dig up too much of it at once. Tackling leakage is an important part of our future plans but it will not solve the water challenge we face on its own. We also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water.</p> <p>The landscape impacts of the proposals have been assessed in outline, as part of the Strategic Environmental Assessment (SEA) of the draft WRMP alongside a wide range of other environmental factors. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. Therefore, these potential impacts have already been taken into account in weighing up the pros and cons of the SESRO options compared to alternatives. We have started to explore how the significant landscape impacts might be managed and mitigated when the scheme is designed as part of our Gate 2 submission to RAPID. Section 3.4 of our main report to RAPID (and figure 3.1) explain some of the key landscape issues and how we have taken these into account in deriving an indicative landscape master plan for the 150 Mm3 SESRO option. We will continue to develop our thinking on these issues, in close liaison with the local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>As shown by our Gate 2 submission to RAPID (Section 3 and particularly Figure 3.1) we are allowing for extensive recreational activity associated with the new potential reservoir. This includes options for land-based recreation, such as walking, cycling and horse-riding linked to the extensive public rights</p>	



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		<p>of way network around the site, educational opportunities, particularly around the possible wetland creation to the western side of the site, and managed water-based recreation such as a sailing club. These aspects are all built into our appraisal of the relative costs and benefits of the options and are similar in nature to the recreational opportunities offered at other Thames Water reservoirs such as Farmoor or Walthamstow Wetlands.</p>	
4180	<p>I would like to add my support for the Cotswold Canals SevernThames Transfer option in regarding to the various plans proposed for water transfer and to bring it forward in the proposed programme. In my opinion the canal restoration option clearly seems the least controversial and brings the most extra benefits. It also brings positive environmental benefits and ecological benefits. In my view it seems the best choice and brings numerous benefits the other options don't bring. It is the most multifaceted option.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4183	<p>There is also a need to factor in the potential risks associated with anthropogenic climate change by paying close attention to the predicted modelling for rising sea levels (by 2030) and restricting urban developments along the riverbanks, retaining and protecting natural vegetative growth of native species and established, mature trees, the root systems of which add stability to riverbanks, and Common Ivy. Any commitment to the maintenance and improvement of biodiversity needs to be met with positive, meaningful actions rather than hollow platitudes. Objections should be raised by Thames Water against plans for such constructions anywhere within the flood plain, citing the environmental damage that they would cause.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resources. Locally, both extremes have been observed, impacting on soil chemistry, drainage, and vegetation, and on any dependent organisms that are vulnerable to these changes, passing right up the foodchain. The drought and extreme temperatures during the summer of 2022 may not be isolated examples as the climate continues to warm up.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood.</p> <p>Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream.</p>	<p>Thames Water are not statutory consultees for new developments and cannot raise objections to new developments on the basis of not being able to provide water to those development.</p> <p>We feel that the modelling undertaken regarding climate change within our WRMP is thorough, having used a range of data available from the UKCP18 climate change projections.</p> <p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>
4183	<p>I care about our precious rivers in the southeast of England, especially my local river, the Wandle, a clean, rare, chalk springsupplied river that is vulnerable to pollution, particularly if effluent is released directly into the river, and from flytipping. Both threats need to be actively policed and transgressions should be penalised with meaningful fines and/or custodial sentences as applicable – there</p>	<p>Thank you for your feedback to this consultation and specifically for raising your concerns around the need to protect and care for our natural environment and watercourses, specifically the Wandle. A key driver to our draft WRMP is to ensure we can cope with our changing climate and continue to provide a secure water supply, as well as protecting and</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>is a need for effective, legally enforced deterrence rather than remedial mitigation after the damage has been inflicted. As flooding of the local flood plain may occur, there is a potential risk to public health from microorganisms and damaging chemicals, both from the river overflow, and from that caused by overflowing drain systems that simply cannot cope with the ever increasing quantity of wastewater being produced by ever more intensive housing, and particularly from large housing developments, including tower blocks. Certain chemicals in domestic use may be particularly damaging to invertebrate life, even if substantially diluted.</p> <p>The Wandle Corridor is a vital (and limited) resource for wildlife as it passes through areas of intensive urban development, particularly in London, supporting birds such as Common Kingfishers, Grey Wagtails and overwintering Little Egrets, fish, including Stone Loach (a rarity in London), and Common Eel (now critically endangered internationally), and insects including Banded and Beautiful Demoiselles and Banded General Soldierflies – these are just a few examples of species inhabiting a currently biodiverse ecosystem that also includes the wildlife of interlinked, slower flowing streams that will intermittently be flooded by river water and isolated ponds that may dry out or fill naturally. Clearly, the maintenance of good water quality is critical to this potentially fragile ecosystem.</p> <p>There is suitable habitat available for the reintroduction of Water Voles (a potential flagship species that could be used to illustrate responsible management) to the Wandle Corridor that could be enhanced by the renaturalisation of artificial riverbanks in the areas where the artificial structures are cosmetic rather than functional, and the absence of predatory Mink along the Wandle has already been established.</p>	<p>improving the environment for the long term. We will need to invest to achieve this, and work with other partners in a collaborative way to address wider issues affecting our rivers and ensure a coordinated approach to protect and improve them.</p> <p>We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	
4183	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters and achieve near 100% coverage by 2030.</p> <p>Thames Water may need to do more to target very high quantity water users, including leisure and industry. A proactive, constructive and cooperative</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>approach to determine whether existing practices involving the usage of high quantities of water could be improved may bring benefits without conflict.</p> <p>Thames Water could step up learning, communication, innovation and testing to establish best practices to maintain high water quality and to prevent leakage – this may involve examining how comparable organisations are handling these issues abroad as well as in the UK.</p>	<p>Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%.</p> <p>Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p>	



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		<p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage.</p> <p>For the latter, media campaigns are considered as part of our wider household innovation.</p>	



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		<p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Innovation We are always on the lookout for innovative technologies, particularly for the point at which they become commercially viable. Then we can update our assessments in future planning cycles. However, we cannot plan on the basis that a new technology will come along. The innovative options we currently have in the plan are based on current industry practices that have not yet been fully realised for Thames. These include: - Price Tariffs implemented to encourage customers to be more conscious of their water use. - Further advances in district metering our areas to aid with leakage reduction and, potentially, new pressure management. - Advances to current leakage control and mains replacement activities, to identify, locate, and fix/replace leaky pipes quicker. - Commercial Innovation will be focused on maximising the benefits of smart meter data to help identify innovative ways to reduce demand and help businesses save water and money on their bills. This will include continuous flow alerts and segmentation, as well as identification of discretionary water use opportunities.</p>	
4183	<p>It is good news that Thames Water plans to develop new sources of water to support environmental improvements across the southeast. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater</p>	<p>The environmental assessment completed to date have identified any significant risks that a DRA scheme could cause and either identified design change or measures to mitigate these risks to acceptable levels, or led to the schemes size being reduced to a point where the risks are reduced to a level which are environmentally acceptable. The 2022 environmental assessment</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date</p>



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	ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable.	reports (Gate 2 reports) identified that the majority of the channel would see a <1°C change for a 75MI/d scheme which would not cause a significant change for ecology. The water being discharged will be of a better quality than the current river quality and also other permitted discharges elsewhere in the catchment. Full assessment of the recycled water discharge on ecology will continue through 2023.	shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
4184	I strongly support the Cotswold Canals SevernThames Transfer option and bringing it forward in the proposed programme. It just seems to be the most useful/best value solution which can be delivered relatively quickly but also offers a fantastic long term economic and environmental benefit.	Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.	
4185	<p>Regarding Water Resources South East consultation about the water transfer to the South East, I would like to voice my support for the Cotswold Canals SevernThames Transfer (CCSTT) option.</p> <p>The future pressure to complete any water transfer scheme is not known and is very much weather/ climate related. Over the last few decades the weather patterns have become more unpredictable, with a definite increase in temperature. This, with a change in the rain pattern and higher demand for water, is likely to create a perfect storm for the South East of England, should there be an extended hot and dry session.</p> <p>While no one option can provide a quick solution to the problem, the CCSST has a relatively short lead in time and the access to the route of the project is already determined to a large extent. The Cotswold Canal Trust (CCT) knows the proposed route for the scheme and has been working with many of the adjoining land owners and fostering good, long term relationships with them, land ownership issues should therefore be less difficult when working on virgin land.</p> <p>I know the CCSTT project would not deliver the higher volumes of water, compared with the other schemes, but does have the advantage of being ready to start well before the other options, because of the planning work that has already been done.</p> <p>There is also the Best Value consideration with the CCT scheme having benefits for reestablishing a wild life corridor. Full environmental studies have been undertaken for much of the route. Similarly with archaeological studies which have been completed or are underway in several locations or will be commissioned. There are also the social, wellbeing and economic benefits a working canal provides along its length and also extending into nearby towns, villages and rural communities.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>Also, as the world we live in evolves, we need to remember why the canals were built and what they were used for. Once completed they enable low tech, low energy and easy movement over the network.</p>		
4202	<p>I care about our precious rivers in the south east of England, especially my local river, the Thames, where I row regularly and enjoy walking along the banks with my family, friends and dog.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>Thank you for your response. Our climate is changing and our weather is more unpredictable than ever. We're facing hotter, drier summers, which means there'll be less rain when we need it most, and extreme weather events will likely happen more often. We've taken the most recent climate change projections produced by the Met Office (UKCP 2018) and assessed how they could impact our water sources in normal years as well as in a drought. This tells us how much more water we'll need to replace the supplies we may lose and identifies which water sources are most at risk.</p> <p>Protecting the environment is a key element of our rdWRMP24. We plan to reduce abstraction in chalk streams and other sensitive watercourses to sustainable levels by 2050. Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
4202	<p>Locally, as a rower on the Thames I regularly witness sewage water being discharged into the river, even during fine weather. I have seen flooding near place of work (Barnes), affecting transport, businesses and homes, not to mention the safety of people trying to navigate the local area, especially children who have to find new routes to and from school which may put them in harm's way.</p>	<p>We note your representation to the public consultation on our draft WRMP and comments in relation to sewage discharges. It is unacceptable to discharge raw sewage, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.	
4202	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters and achieve near 100% coverage by 2030.</p> <p>Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres;</p> <p>This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p> <p>I hope you will help us take the action needed.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart</p>	



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		<p>AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4202	<p>As a Thames Water customer, I am urging you to consider my points below in the reviewed plans.</p> <ul style="list-style-type: none"> - Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 millionlitres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged. - It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife... Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable; 	<p>Thank you for your response to the consultation. Both protecting and improving the ecological health and water quality of our streams and rivers is central to our Water Resource Management Plan (WRMP).</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. As an example, following the assessments so far, we have reduced the scheme size to ensure we protect the environment. We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality and landscape in addition to expanding our ecology survey programme.. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>The Teddington DRA scheme proposes discharging recycled water into the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>freshwater section of the River Thames upstream of Teddington Weir, requiring a greater level of treatment than would be required if the water were to be discharged into the Tideway section of the River Thames, downstream of Teddington Weir. The Environment Agency would determine the discharge parameters which we will need to comply to, but as a minimum we would expect the additional treatment to include:</p> <ul style="list-style-type: none"> - Dosing to remove excess phosphates; - biological sand filters to remove ammonia and suspended solids; and, - cloth filters to remove final solids - Additional treatment processes would be added as required. <p>A Water Quality Assessment has been completed which concluded that this proposed scheme will have a negligible impact on the majority of WFD chemicals, EQSD chemicals and Olfactory water quality. There are some WQ parameters which require further assessment to understand the level of additional treatment that might be required to ensure that the discharge water quality is appropriate. This work is still underway. Additionally, the scheme will not be linked to the existing sewage treatment processes at Mogden STW, and will instead be a new advanced (tertiary) treatment plant located at the Mogden site, meaning there is no risk of sewage water or storm overflow from entering into the Teddington DRA scheme.</p> <p>Given these considerations, the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames upstream of Teddington Weir while also balancing the spatial constraints that we have at Mogden Sewage Treatment Works and best value for our customers without significantly increasing the risk of environmental impacts.</p>	
4204	I care about our precious rivers in the south east of England, especially my local river, the river Wandle.	Thank you for your response. Our climate is changing and our weather is more unpredictable than ever. We're facing hotter, drier summers, which means there'll be less rain when we need it most, and extreme weather	Since our draft plan, we received feedback that it is not acceptable to plan for Environmental



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	<p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>events will likely happen more often. We've taken the most recent climate change projections produced by the Met Office (UKCP 2018) and assessed how they could impact our water sources in normal years as well as in a drought. This tells us how much more water we'll need to replace the supplies we may lose and identifies which water sources are most at risk.</p> <p>Protecting the environment is a key element of our rdWRMP24. We plan to reduce abstraction in chalk streams and other sensitive watercourses to sustainable levels by 2050. Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>	<p>Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>
4204	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p> <p>Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres;</p> <p>This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. I hope you will help us take the action needed.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%.</p> <p>Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely</p>	



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		<p>with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4204	<p>As a Thames Water customer, I am urging you to consider my points below in the reviewed plans.</p> <ul style="list-style-type: none"> - Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged. - It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the 	<p>Thank you for your response to the consultation, and the points you raise are noted.</p> <p>We are committed to protecting the environment and our rivers. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 MI/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. In terms of concept, the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management</p>



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	<p>temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable;</p>	<p>Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Teddington scheme would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards.</p> <p>We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We'll need a combination of measures to address the shortfall.</p> <p>The new reservoir – the South East Strategic Reservoir Option (SESRO) – expected completion date is 2040. Building a reservoir on this scale is an ambitious and complex project, which requires significant stakeholder engagement and a thorough planning process. Due to the scale of the project, it will take a significant amount of time to build. Planning consent for construction is planned by 2030 and water would be available by 2040. This timeline is as quick as practicably possible whilst following the national planning process and ensuring that all environmental and engineering studies are carried out with sufficient rigour to satisfy ourselves and all stakeholders.</p>	<p>Plan while further work is undertaken.</p>
4205	<p>I care about our precious rivers in the south east of England, especially my local river, The Wandle.</p> <p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. Locally, outfall pipes discharging sewage waste in the river.</p> <p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>Thank you for your response. Our climate is changing and our weather is more unpredictable than ever. We're facing hotter, drier summers, which means there'll be less rain when we need it most, and extreme weather events will likely happen more often. We've taken the most recent climate change projections produced by the Met Office (UKCP 2018) and assessed how they could impact our water sources in normal years as well as in a drought. This tells us how much more water we'll need to replace the supplies we may lose and identifies which water sources are most at risk.</p> <p>Protecting the environment is a key element of our rdWRMP24. We plan to reduce abstraction in chalk streams and other sensitive watercourses to sustainable levels by 2050. Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>



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4205	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters and achieve near 100% coverage by 2030.</p> <p>· Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the Southeast aim to meet the government’s target of 110 litres. This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others?</p> <p>Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. I hope you will help us and take the action needed.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart</p>	



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		<p>AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4205	<p>As a Thames Water customer, I am urging you to consider my points below in the reviewed plans.</p> <p>- Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.</p> <p>- It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the Southeast. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife.</p> <p>Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable.</p>	<p>Thank you for your response to the consultation, and the points you raise are noted.</p> <p>We are committed to protecting the environment and our rivers. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 MI/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first.</p> <p>In terms of concept, the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Teddington scheme would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards.</p> <p>We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We'll need a</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>combination of measures to address the shortfall.</p> <p>The new reservoir – the South East Strategic Reservoir Option (SESRO) – expected completion date is 2040. Building a reservoir on this scale is an ambitious and complex project, which requires significant stakeholder engagement and a thorough planning process. Due to the scale of the project, it will take a significant amount of time to build. Planning consent for construction is planned by 2030 and water would be available by 2040. This timeline is as quick as practicably possible whilst following the national planning process and ensuring that all environmental and engineering studies are carried out with sufficient rigour to satisfy ourselves and all stakeholders.</p>	
4206	<p>I would like to say that I very much favour the plan to transfer water from the River Severn to the River Thames through the Cotswold canals as a way of providing more water to households in SE England. The alternatives of underground pipes and a reservoir are likely to be more damaging to the environment, using a lot of concrete and energy, whereas the canal plan would provide access to countryside for people to enjoy a waterside environment, with corresponding health, and mental health, benefits as well as a new cross country route for walkers, hikers etc.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4208	<p>I would like to show my support for the proposed plan to transfer water from the River Severn to the River Thames via the suggested Cotswold canal route. To me this seems like a sensible way of providing more water to SE England without the need for reservoirs and lots of concrete pipes, while providing environmental benefits and an amenity for people to be able to access and enjoy a, wildlife-friendly, open waterway, as well as a new crosscountry, traffic-free, walking, and maybe cycling, route along a canal towpath.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4209	<p>I am a volunteer for SERT and help with the monthly Riverfly Monitoring Initiative which generates important data about the water quality and enables trends through time to be traced. I have seen first hand the damage that can be done when the river is polluted, either through sewage or as recently, an oil spill. I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>Thank you for your response. We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
4209	<p>I care about our precious rivers in the south east of England, especially my local river, the Hogsmill. I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource.</p>	<p>Thank you for your feedback. An important part of our draft plan is to reduce unsustainable abstraction and improve the environment and we have adopted the highest scenario for environmental ambition in our draft plan.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4209	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030. Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres; This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. I hope you will help us take the action needed.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely</p>	



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		<p>with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4210	<p>I write in support of the WRSE Best Value Plan and Cotswold Canals Trust SevernThames Proposal being an integral part of the water provision for the South East. It makes very good sense to utilise the proposed restored canal as an essential part of the overall solution to water provision. It would give a greater purpose to the works which are intended to be completed meaning they move beyond simply the restoration of a lost waterway; the restoration can also provide the key additional benefit of the transfer of water in volume to a large part of the South East of England.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4211	<p>I support the proposal to transfer water from the River Severn to the River Thames via the Cotswold Canal, for the following reasons: Better value for money over allpipeline / new reservoir options, when taking into account the benefits of a restored canal for leisure and wellbeing Less impact on the environment</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4212	<p>The plan should be sequenced to provide increased supply in the short term, mainly by water transfers, until long term demands can be better determined.</p> <p>this plan is not adaptive -by advocating construction of the largest infrastructure development right at the start, the plan becomes fixed. This is not what I believe the regulators intended when asking for a plan that could be adapted over time.</p> <p>The plan fails to adequately show how the environment local to the reservoir site would be protected or, indeed, improved as required by law. Given, in 2022, the upper Thames failed to sustain even existing reservoirs without requesting excessive extraction under drought permits, it is unclear how levels in the proposed new reservoir will be maintained. This is not resilience.</p> <p>Plans for better water recycling and leakage and demand reduction are completely inadequate. The plan fails under all the criteria you have outlined</p> <p>The need for regional transfers has been known for many years, yet nothing has been done.</p> <p>Your own literature points out that the south east is the driest part of the UK, so please get on with water transfer as fast as possible. My view is that your plan should show a start to the SevernThames transfer before 2030, and an advancement of the Grand Union Canal phase 2 water transfer before any</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>consideration of building the Abingdon Reservoir is contemplated.</p> <p>The move to net zero will produce an abundance of cheap low carbon energy soon. At times, there will be an overabundance. We are already seeing systems being paid to shut down because their energy is not needed. Why not use this energy to power several desalination plants and/or water transfer schemes?</p> <p>As I stated in my response to your questionnaire in March 2022 I should very much like to know why Thames Water had dropped desalination as an option. Oxfordshire County Council has suggested other sites for reservoirs as alternatives to a gigantic aboveground structure in the Vale of White Horse between Steventon Marcham and East Hanney. Are you seriously considering any of these? These systems could even be used to load balance the national grid.</p>	<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4212	<p>The plan you have presented fails to address or acknowledge the many issues raised in previous consultations. Population predictions are, again, wildly over estimated, compared to the latest government projections, which show the UK population will start falling as soon as the next 1015 years.</p> <p>By 2075, the UK population, including that of the southeast , will be decreasing. Demand should be falling, rather than rising.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4212	<p>It is clear that figures quoted in the draft plan grossly overestimate future population figures for the region, using national growth estimates rather than more realistic figures for the area of concern. This makes the assessment of the issues of supply and demand complete nonsense.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been overestimated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available. National growth rates are lower than those in the south east region on average and we have utilised local authority plans of growth for the period for which they are available. Beyond</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>this horizon we then use ONS subnational population projections through to 2050 and then revert to the national population projection beyond 2050. This approach is inline with the Water Resource Planning Guidelines and we disagree that the supply and demand assessment is "complete nonsense".</p>	
4212	<p>The sections on climate change fail to address the overall effect of climate change -at times, more water will be available to recharge aquifers and existing storage. Full aquifers will last much longer through dry periods, yet this is largely ignored.</p> <p>If climate change is as you predict, the need is even more urgent. In 2022 we saw the Thames headwaters dry up and move several miles downstream. We may face a period where future permitted abstractions are only a fraction of current levels due to environmental considerations.</p>	<p>While it is true that the pervading climate change narrative is that the future will bring "warmer, wetter winters and hotter, drier summers", this cannot necessarily be translated into a narrative of fuller aquifers at the beginning of every summer and a resultant diminished drought risk. Climate change brings with it an array of risks and the full range of complexity must be considered when assessing climate change impacts, requiring complex modelling. For example, hotter drier summers will mean that, in many years, there will be a large soil moisture deficit at the beginning of the autumn/winter period, meaning that there will need to be more rain before significant aquifer recharge can begin, meaning a reduced window for aquifer recharge and a different set of risks. The methods which we are required to use when assessing climate change impacts are outlined in the Water Resources Planning Guideline supplementary guidance.</p> <p>We agree that action is needed to ensure supplies are resilient in the face of climate change impacts, but we cannot draw strong conclusions from a single event. We acknowledge that permitted abstraction in the future may be significantly less than it is now, and are considering a wide range of licence reduction scenarios in our planning.</p>	<p>No changes - our approach to climate change impact assessment is robust</p>
4212	<p>We have seen consultation after consultation, with so many issues raised that have been simply ignored. It is very hard to identify where changes have been made to plans because of consultations -so what exactly is the point? Is this just a box ticking exercise so that you can say you have consulted? Please listen to respondents.</p> <p>Please include other sectors as stakeholders at board level, like other water groupings such as Water Resources East do.</p>	<p>Thank you for your feedback. We would like to reassure you that this is not a box ticking exercise. We are legally required to undertake a public consultation on our draft WRMP but in this document we have set out the detailed consideration to the points raised and changes made to our draft WRMP in response.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4212	<p>Currently, the solutions are designed to benefit water company shareholders rather than customers. This needs to be visibly and urgently addressed. Where in the plan is technological innovation? After the shocking and</p>	<p>Thank you for your comment. The purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. We</p>	<p>We have provided information in response to your comments,</p>



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	<p>continuous reporting of sewage discharges, water companies are going to have to invest heavily in better water treatment. This should produce large amounts of water that can be extracted for use further downstream in the Thames, closer to point of use. Why isn't this acknowledged more in the plan?</p>	<p>have developed our draft WRMP in accordance with legal requirements and regulatory guidelines and have completed detailed work to determine the best value plan for our customers. Our shareholders have not been involved in the development of the draft WRMP . Our shareholders are long term investors, they are underwriting a turnaround plan to prioritise investment in improving service for customers and to protect the environment that will see us invest £1 billion more in the network than we will receive from bills and this year they have committed £500m of new equity. Furthermore they have not taken a dividend for five years (since 2017).</p> <p>In regard to investment in wastewater treatment, Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. This investment will ensure we have sufficient infrastructure capacity to cope with the increasing population and our changing climate change. We have looked at a number of potential sites for water recycling including in east London and other sites have been considered across the south east, so these options are part of our consideration in developing our draft plan.</p>	<p>there are no changes to the plan as a result of your representation.</p>
4212	<p>For some years I have been increasingly concerned that Thames Water is far worse than all the other water companies at reducing leakage. By the time TW will have reduced its leakage by 50 per cent it will still be only at the level most companies are at now.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the</p>	



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		comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.	
4212	<p>Thames Water in particular needs to invest much more in: Leakage reduction Demand reduction by improved water efficiency Wastewater treatment</p> <p>At a minimum, they should be required to achieve the sector average in each of these areas. They should commit to meeting the Government target for per person consumption by 2050.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	



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4212	<p>I am writing in response to strongly oppose the Thames Water South East Strategic Reservoir Option (SESRO) latest proposal to build an enormous reservoir in the flood plain of the Vale of the White Horse, which would have widespread and deleterious effect upon the surrounding area, with no solid proof that it would not cause flooding to a devastating extent in an area already wellknown for flooding.</p> <p>A previous proposal for a smaller scale reservoir was rejected at a Public Enquiry which found the project to build a reservoir in this area was unsound.</p> <p>This latest proposal is for an even larger reservoir with little or no new scientifically validated evidence to support a need for such a large water storage facility, when there are viable alternatives that would solve the water shortage problems of the southern half of the country whilst avoiding great potential danger to the countryside, wildlife, surroundin villages and, not least, the climate.</p> <p>As I said in my response to the WRSE questionnaire in March 2022 any new large aboveground reservoir (especially built upon a fen!) is, in my view dangerous under the present circumstances, and would very likely end up being only partly needed at best, having used up acres of good farmland and ten grossly disturbed hole communities firstly because of the huge inconvenience (construction phase) and then risk (obvious).The Ukraine war has had a far reaching consequence for this country, which hitherto has imported many of the commodities necessary for survival – oil, gas and food. The area of the proposed reservoir is good farmland and may well be necessary for farming for food under the changed circumstances.</p> <p>In addition I have some more specific concerns about this proposal for a massive, hugely disruptive, and potentially dangerous above ground reservoir. My specific concerns are detailed below.</p> <p>Little seems to have been done to address the adverse comments against the Reservoir Plan highlighted by the first Public Enquiry which found the then</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>proposal unsound.</p> <p>I recall that Thames Water’s own consultants stated there was insufficient flood compensation area within the proposed site for any reservoir above 75 million cubic metres. Even this figure is unsound as the proposed building plot will prevent the natural drainage of the existing flood plain, most probably diverting flood waters into the neighbouring villages of East Hanney and Steventon. Both these communities suffered devastating floods in 2007 and 2008, and several other less serious floods since then.</p> <p>The latest application to increase the size of the footprint for the proposed reservoir has not recognised recent new building developments. Nor has it considered planned new housing developments. I strongly suspect that the height of the reservoir and the depth of the water will mean a very high pressure will be exerted on any waterproofing clay layers beneath the reservoir. These clay layers are unlikely to be uniformly thick and may not even be complete. The likelihood of seepage is dangerously high under this pressure. Anyone can see that in an area with such a high water table this could easily lead to wholesale flooding – even the destruction of property.</p> <p>Unlike reservoirs where rivers and streams are formed by building a dam across a valley collecting water from new sources, this reservoir will not provide any 'new' water into the Thames area as it will simply store what is already in the Thames. It will thus not provide extra water supplies, nor additional drought resilience.</p> <p>We are told the proposed reservoir would take 15 years to design and build and rather more than three years to fill. This is an optimistic timeframe since it takes no account of delays. All this makes this scheme a very longterm project, the need for which has not been justified in the first place. Other more viable and resilient schemes such as the transfer of water from the River Severn to the Thames could be available in a much shorter time frame and with far less environmental impact and local community disruption. The water for the proposed reservoir is not even for local consumption and may not even be for</p>	<p>an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p>	



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	<p>London.</p> <p>The Thames Water SESRO’s draft plan has been made without proper consideration of alternative solutions, such as facilitating the transfer water from other areas to meet demand in the South East, or prioritising schemes for recycling water or desalination, especially as the water stored in the proposed reservoir is not for local consumption but for profitable sales to areas not affected by its long construction or its permanent massive disturbance. It is very evident that building this massive reservoir would cause permanent and irreversible harm to an enormous area of the local countryside. And this at a time when the alarming decrease in local flora and fauna is of increasing concern in most areas of our country.</p> <p>There are concerns about the impact on the road network and on the potential for restoring the Wilts and Berks Canal since the reservoir would cover the route of this waterway. The plan also fails to consider the impact on existing solar farms located on the site, on the climate in the area, on the local air quality, and on archaeology,</p> <p>The draft plan does not explain why a scheme that will result in major carbon emissions is being prioritised over schemes that would have far less impact, many of which have been suggested in the past.</p> <p>Many local residents are also concerned about the impact on the inevitable increased flood risk in the immediate area from the proposed reservoir and the potential impact on the landscape and protected species. There are many better and more innovative solutions than a reservoir which would cost dramatically less and be far less destructive for the environment.</p> <p>A previous attempt to build a reservoir was rejected by public enquiry because the applicants failed to make a case for the need for this specific massive reservoir solution and there was a failure to examine other potentially cheaper, less disruptive schemes that would have and have less impact on the environment.</p>	<p>The SESRO scheme is founded in the bedrock clay on the proposed site. It will not therefore require 'waterproofing layers' instead being underlain by layers of impermeable clay which will ensure the structure is watertight. There are small area of permeable geology (greensands) across certain parts of the site that would require sealing but this is standard practice in reservoir construction.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wrybury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the</p>	



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	<p>The Environmental Assessments are completely biased in favour of the reservoir. Some of the suggested “benefits” being only hypothetical, and in the main dependent on third parties to implement and maintain them, including restoration of amenities (footpaths, wildlife areas, etc) that the construction of the proposed reservoir will have destroyed. -The negative impacts of noise, additional traffic and dirt associated with transporting massive quantities of materials to and from the site would have a significant detrimental impact on the neighbouring towns and villages. In addition we are informed the reservoir would not be a leisure asset -there would be solar panel rafts across the surface Tight security of the site would be a matter of national importance.</p> <p>My view is that the South East Strategic Reservoir plan to build the reservoir should be refused until it is clear that the necessary studies to evaluate the SevernThames water transfer scheme properly as an alternative have been concluded and submitted to public scrutiny. I feel that it is also vital that independent technical studies to evaluate the contentious issues surrounding the Reservoir proposal, particularly the flooding risk and the level of resilience to long droughts should be undertaken. If after that the scheme is not rejected outright there should be a Public Inquiry to examine the South East Strategic Reservoir plans, as was previously carried out by a former Secretary of State in 2010.</p>	<p>2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	
4213	<p>A more intensive policy for moving water around an enlarged network seems more appropriate. How this is done is also important, for example on the surface instead of underground, and to maximise health and recreational benefits. You</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full</p>



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	<p>have stated goals of prioritising the upper catchments, and in areas of unrestricted access, to achieve value in the natural environment.</p> <p>This leads on to having communicable plans that have clarity and democratic engagement. Using your example of 'Iconic Infrastructure' at the Grand Union Canal (far in the future, in the report), it seems strange that there is so little focus on the actual and ongoing rebuilding of the SevernThames canals through the Cotswolds. This is already a respected and sizeable project in its own right, well supported across the region. It has the potential to provide a visionary quality to your Plan.</p> <p>In this regard, the figures that appear in the Plan for the contribution of Transfer schemes post 2040 are puzzling, showing a mere 5% for the SevernThames Transfer under the Central Pathway, yet a 27% for the Transfer schemes under the High Pathway. There is too little detail in these cases, but one suspects that quality and habitat enhancement options are high. It is also apparent that the economic benefits are hugely undervalued, perhaps by a factor of 10: the SevernThames transfer is only £80M in the Plan, that is surely incorrect given the precedent provided by the initial sections of the canal restoration.</p> <p>There are also opportunities in the Cotswolds for additional reservoirs, since the gravel pits of the Cotswold Water Park area are still being excavated, and that particular area is also in need of a boost, quite apart from the potential for habitat improvements. The same might be said for looking at the potential of the Severn corridor, and ensuring that its water quality is maintained (there are several threats to its viability)</p> <p>Lastly, I think any consultation benefits from choice. In the end -the reservoir scheme could be the best way forward, yet until alternatives have been adequately considered, people will be inclined to resist it. I am inclined to think that water Transfer is the most promising course of action.</p>	<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
4213	<p>The division of the plan into pre and post 2040 stages is reasonable, since we cannot know the future, yet the decision to focus on the reservoir SESRO is</p>	<p>We are glad that you agree with our adaptive planning approach.</p> <p>We don't agree that the focus of our plan is the SESRO scheme. The</p>	<p>No changes as per our consideration</p>



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	<p>really kicking the can down the road. It seems to reflect a business as usual approach, rather than an urgent response to a climate emergency.</p>	<p>foundation of our plan is demand management, with significant leakage and usage reduction plans from the beginning of the planning period. We are also proposing action on new supply-side schemes in the near term, with investment in effluent reuse ready for the early 2030s. The decision to opt for the SESRO scheme to provide additional resource in 2040 is a balanced decision considering the pace and scale of the planning problem that we are faced with</p>	
4213	<p>- carbon reduction is not an add-on, in the context of global warming. The commitment to net zero by 2030 (just a short time in the future) is welcome, but noticeably confined to operational carbon. The report tends to skate over this anomaly, to disregard the impact of embodied energy shown in the red boxes of the SEA chart (App 3.1). The Plan should include assessment of low energy alternatives to the usual heavy-duty infrastructure, taking into account more local, people-orientated management systems; also considering smart (AI) systems which improve efficiencies without loss of quality.</p>	<p>The analysis undertaken to derive the best value plan for both WRSE and Thames Water's WRMP takes account of the operational and embodied carbon footprint of the options, and optimises the plan, to provide the best value overall, including taking account of the carbon footprint of the plan. The carbon emissions resulting from the SESRO options have been appraised in detail, with further information available through our Gate 2 submission to RAPID. There are a range of carbon mitigation opportunities that have been identified for this scheme both during design and via supply chain engagement, all of which will be developed as the scheme progresses. These measures have been described in the Gate 2 report. The scheme is expected to provide a net benefit to carbon sequestration, changing largely arable land to habitats with a greater capacity for carbon sequestration.</p> <p>The water industry has committed to achieving net zero carbon emissions across its operations by 2030, in line with the Government's target of net zero emissions by 2050, and Thames Water has committed to going beyond this to achieve net negative carbon emissions across its operations by 2040. Our plan has been created within the context of these commitments, and across our business we are taking action now to decarbonise our operations (for example, by electrifying our fleet and generating our own renewable energy) and working with our supply chain to decarbonise our capital works too. Both the embodied and operational carbon impacts of our options have been taken into account within the modelling used to derive our best value plan. The actions we are taking as a business will pave the way for our plan to be delivered with as low a carbon footprint as possible. More specific measures to decarbonise the delivery of our SRO schemes have been</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>



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		described within our Gate 2 documents, and this work will be further developed in subsequent gates.	
4213	<p>We, the public, are going to pay for this. Our choice of what to buy through our bills is like any purchase, a matter of choosing the option that provides the best allround solution. As any shopper knows, this is rarely the cheapest option. Nor is it likely to be the option that makes the work of the supplier easiest and most profitable. In parallel with preparing the Plan for Best Value, the WRSE must expect to face challenges which it may not entirely relish, but are ultimately for the best -I mean, the best for society and the natural environment as well as themselves. Basically you cannot choose to disregard options that will make your life difficult! So thank you again for approaching the Plan with Best Value in mind.</p> <p>This also raises the crucial question of achieving the Plan, in partnership with other stakeholders, other institutions, other skillsets, other key players who can use water resources imaginatively. Economic benefits do not occur through a mysterious 'trickledown' effect, but through active planning, and a wide range of people seeing the opportunities.</p>	Thank you for your feedback. We will need to work in partnership with a wide range of organisations and local communities if we are able to deliver the best value plan effectively and efficiently and this is our aim.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
4213	In the Plan, the terms Best Value and Additional Value are used, as if they are the same thing. But this assumes that the resource is 'free', whilst it is clearly not, since life could not continue without it. The ongoing destruction of our rivers and other water resources, through discharges of polluted water (eg flooding of combined sewers) would not be happening so regularly if your job was understood to be stewardship rather than exploitation & supply.	We note your dissatisfaction. The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>In respect of best value, we have followed regulators' guideline in developing our draft WRMP, and have considered cost as well as wider benefits the plan could provide to society and the environment including biodiversity, carbon and increased resilience. Further information is presented in Section 10 of the plan.</p>	
4214	<p>I am a retired teacher living in Stroud and have written a book about Sapperton Canal Tunnel. I would like to add my support for the water transfer scheme because, having researched and written about getting from the Severn to the Thames, using water, I know something of the subject. I believe many people will have expressed the same views as me as to why the Sapperton Tunnel is the best way forward so I won't repeat them now.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4214	<p>Just to add "Thank you" for taking on this consultation. I suspect it's a difficult job at times and I appreciate you doing it.</p>	<p>Thank you for your feedback.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4215	<p>My concern and interest focus largely on the opportunity to utilise the Cotswold Canals route for the purposes of water transfer from west to east -an option which has been available for many years now. -I first heard of this issue in the early 1990s, but the work has not yet started -and the need for water transfer is not going away. -The Cotswold Canals Trust are already doing what they can on the relevant section of their canal, but to bring the benefits to the water supply issues in the South East the work to utilise that option should start without further delay. -I can clearly remember a BBC Countryfile programme, a year or so ago, presenting the issues and the need for water transfer. -The solution offered by the Cotswold Canals is there and available to start working on now. - Endless rounds of plans and consultations do not deliver a solution -what is needed is a decision to proceed to deliver an early solution -which is just one way where the CCSTT solution beats the alternatives.</p> <p>The opportunity still remains to opt for the best value solution -the restored canal will bring great value in terms of nature recovery networks, improved habitat, leisure opportunities for the local population and the inward investment in waterside and boatingrelated and leisurerelated businesses.</p> <p>I am disappointed to hear from the Cotswold Canals Trust that, notwithstanding lobbying in earlier years in favour of the CCSTT (and previous incarnations thereof), it does not attract the support it should attract. -The assertion in the draft WRSE Best Value Plan that the CCSTT is more costly than a pipeline is not demonstrated -and if the objective is best value (the words in the title), only looking at the total initial capital cost is missing the point. -Best Value must surely look at all the benefits and costs -including the benefits I've summarised above which come from the restored canal. -The pipeline, in particular, offers no such benefits.</p> <p>The BBC programme stressed the urgency of the issue -I've been waiting</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>decades to see any decisions and actions. -Please can the present round of consultations make a decision to proceed with what is clearly the best solution, the CCSTT. -Work could have started on it years ago and the problems we're facing today would have been mitigated by now.</p> <p>Please add my response to those writing to express strong support for the CCSTT. -I feel there is a compelling case for this scheme to be adopted and delivered first, and without further delay.</p>		
4216	<p>I am totally against the proposal to construct a new water reservoir in the Abingdon area. This onetime attractive rural location has already suffered from excessive development and to cover a vast swathe of land with water would have a devastating impact on the surviving natural environment, as well as destroying a significant area of valued foodproducing agriculture.</p> <p>All focus on increasing the availability of water in this area should be on the scheme to bring in water from the river Severn.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.	
4216	Reduce the existing high incidence of leakage.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4217	I agree with the proposal made in the recent email, which, as the email suggests seems to be a realistic solution to restoring the ThamesSevern Link.	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		<p>emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4218	<p>I wish to comment on the current consultation on the forthcoming Water Resource Management Plan and in particular show my support for the Cotswold Canals Transfer Option (CCTO). -I am a longterm supporter of the Cotswold Canals restoration and have indeed spent considerable time working as a volunteer on this project. -I am concerned that the very strong support for the CCT Option in previous consultations does not appear to have been given sufficient weight in the subsequent deliberations and trust this will be rectified in the current consultation process.</p> <p>We are all aware of the urgent need to establish viable water supplies to the South East and a prompt resolution of this impending crisis is imperative. -It would, in my opinion, be foolhardy to opt for a scheme which would only bear fruit over a long timescale. -The South East Strategic Reservoir option is predicted not to be commissioned until 2040 while the canal option could be operational within possibly 12 years, providing a much more timely solution to current problems.</p> <p>Selecting a pipeline option would provide little or no social or environmental benefit. -Given the requirement for development projects to demonstrate Biodiversity Net Gain, a pipeline would struggle to show any improvements in</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>biodiversity as opposed to the canal option which would enhance an already thriving natural environment. -Further, the damage and disruption caused by creating a newbuild pipeline would be far greater than upgrading existing infrastructure which has fallen into disrepair.</p> <p>Although Thames Water is a private company beholden to its shareholders, consideration should be given to its corporate social responsibility. -In addition to the environmental concerns noted above, the social benefits of the canal option far outweigh those of a pipeline. -Canals provide a pleasant, trafficfree route into the country, providing opportunities for recreation and wellbeing through a variety of activities, to the benefit of the local community.</p> <p>I trust the above points will be taken into account in considering the merits of the various proposals and look forward to hearing that the canal option is the preferred scheme.</p>	<p>(PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4219	<p>Taking on board what has been said in the latest proposals, I still think using water from River Severn with the various schemes to enhance the water supplies from hills surrounding the source of the river and using the Cotswold Canals Severn -Thames Transfer Scheme reference CCSTT.</p> <p>By using the CCSTT scheme also has the benefit of lower costs and much quicker to implement than the SESRO scheme which has over the years and will continue to provoke even stronger planning issues before construction can even begin. As a result I think year of 2040 appears widely optimistic and the cost of the reservoir makes it prohibitive when a much cheaper scheme is at hand.</p> <p>Another -benefit of using the CCSTT scheme is the added advantage of the natural benefits it would create by using the canal and I hasten to add not the pipeline option which would not create any natural benefits.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4220	<p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p> <p>Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future.</p>	<p>Changes in our schedule for abstraction licence reductions, and associated narrative, is included in Section 5 of the rdWRMP</p>
4220	<p>· Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) is pathetic. I was brought up in New Zealand where they are constantly mindful of the waste of water. Making people aware through advertising is a sure way people will reduce water consumption.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>Other companies in the south east aim to meet the government’s target of 110 litres. This raises questions about whether Thames Water is doing enough to target very highwater users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation, and testing to ramp up effective demand measures quickly.</p> <p>· Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters and achieve near 100% coverage by 2030.</p>	<p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider</p>	



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		<p>household innovation. "Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes. In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact</p>	



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		<p>businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix. Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data. We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p>	
4220	<p>As a Thames Water customer, I am urging you to consider my points below in the reviewed plans.</p> <ul style="list-style-type: none"> · Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged. · It is great that Thames Water plans to develop new sources of water sooner 	<p>Thank you for your response to the consultation, and the points you raise are noted.</p> <p>We are committed to protecting the environment and our rivers. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 MI/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in</p>



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	<p>rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable.</p>	<p>In terms of concept, the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Teddington scheme would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards.</p> <p>We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We'll need a combination of measures to address the shortfall.</p> <p>The new reservoir – the South East Strategic Reservoir Option (SESRO) – expected completion date is 2040. Building a reservoir on this scale is an ambitious and complex project, which requires significant stakeholder engagement and a thorough planning process. Due to the scale of the project, it will take a significant amount of time to build. Planning consent for construction is planned by 2030 and water would be available by 2040. This timeline is as quick as practicably possible whilst following the national planning process and ensuring that all environmental and engineering studies are carried out with sufficient rigour to satisfy ourselves and all stakeholders.</p>	<p>our Water Resource Management Plan while further work is undertaken.</p>
4221	<p>I am hugely in support of the Cotswold Canal Water Transfer scheme as the preferred plan, as it will have the most positive of environmental, social, historical and above all economical impacts upon the areas around the areas it will affect.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4223	<p>I continue to support the Cotswold Canals SevernThames Transfer option.</p> <p>A pipeline has been selected without a well well considered analysis of the financial value of the restored canal to society. There is good evidence that had it been included it would tip the balance in favour of the Canal transfer option (Inland Waterways Assoc report: Waterways for Today). So many major projects do little to nothing for the environment and many damage it. The pipeline option lacks any social and environmental ambition. The restoration of the Canal -is an unusual opportunity with the potential for major social and environmental benefits. It should be given proper and full consideration taking all the benefits into account.</p> <p>In addition, -the population enabling the water transfer can reasonably expect some local benefit from facilitating it. -A pipeline will create disturbance without benefit.</p> <p>The need to augment water supplies in the South East is well known. The huge</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>uncertainties arising from the ‘unknowns’ associated with the changing climate may well accelerate the need. The risks are high. -It is therefore not understood why the large reservoir -near Abingdon (South East Strategic Reservoir) is seen as a higher priority. than water transfer. It will not be commissioned until 2040, that is assuming that a well organised and vociferous opposition does not delay it. It will have huge environmental consequences and generate considerable opposition.</p>	<p>Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4223	<p>In my response to the Consultation I strongly advocated the option of using the Cotswold Canals for water transfer. I find that I was not alone and indeed that the option was very strongly supported. I was, therefore, very shocked to find that it has been all but dismissed with the words: “the use of the Cotswold Canals as part of the Severn Thames Transfer rather than a new pipeline has been explored but is a more costly option”.</p> <p>I had hoped that society had learnt that the environment has very great value and importance. So much damage has been done, over many years, resulting from choosing lower cost options disregarding environmental impacts as unaffordable. They should get full consideration when a significant opportunity, such as this one, presents itself.</p> <p>The Severn Thames transfer should, therefore, be a higher priority; the Canal option should be reassessed taking into account all the benefits that will accrue and pursued as a matter of urgency.</p>	<p>Thank you for your response. Water is essential for all our lives, but our water resources are under pressure and this will only increase with time. There are no simple quick solutions, we need to plan to manage a growing population, a changing climate and an increasing drought risk, as well as making sure we can protect our environment now and in the future. We are working in collaboration with other water companies and stakeholders to coordinate a regional response to the challenges. We’ve looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We’ll need a combination of measures to address the shortfall.</p> <p>We have completed the required assessments to understand the environmental impacts of our water resource schemes, in line with the Environment Agency’s guidelines. We consider that the schemes we have included in our plan are environmentally resilient and appropriate to include in our viable options list.</p> <p>The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft</p>	<p>Since our draft WRMP further guidance has been received from the Environment Agency, Ofwat and Defra that sets a clear policy pathway to 110 l/h/d by 2050, and 122 l/h/d by 2037/38, and new targets for NHH too. We will aim to achieve these new household and non-household targets in our revised draft plan through some improvement in our reductions and further government led reductions. We made it clear in our draft WRMP that further customer reductions were challenging from the analysis carried out to date.</p> <p>The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-term need for water resources across the WRSE region and as</p>



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		<p>plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>	<p>such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>
4224	<p>I would urge adoption of the Cotswold Canal scheme as the solution to the need to improve water supplies to the South East.</p> <p>1 I am very opposed to the idea of a new reservoir in the Abingdon area. The geography of the area does not lend itself to creating a large reservoir and the proposal would involve flooding a large area of land which should be kept for agriculture, leisure and, no doubt, some housing.</p> <p>2 In principle a much better approach to addressing the shortage of water storage in the south east is to work with nature and the features of our country by transferring water from the west, where it is plentiful, to the east. Indeed there should be a presumption in favour of such schemes with ideas of transferring water from the north of England and Scotland to the South of the country, where possible.</p> <p>Water Transfer Options:</p> <p>1 Some transfer schemes might have to rely on pipes and one of the proposals</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>for transferring water from the Severn to the Thames does involve a pipe transfer. However, this does not have any other environmental or other benefits to the community.</p> <p>2 On the other hand the proposal to transfer water via the Cotswold Canals would bring enormous benefits. It would allow for the restoration of the canals between Stroud and Lechlade with enormous advantages on top of the water transfer itself. We know from many examples across the country where canals have been restored that many benefits follow. Not only does it provide a direct improvement for boaters, walkers, cyclist and fishermen but also the local communities along the route are regenerated and improved as a result.</p>	<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4225	<p>I would like to make the following points all of which emphasise the advantages of the Cotswold Canals Trust:</p> <ol style="list-style-type: none"> 1. Abingdon reservoir has been proposed for many years. It is suggested that an earliest completion date for it would be 2040. In Cerney Wick next to the Thames is gravel pit extraction. Use of this for a reservoir is possible on the CCSTT plan with an earlier completion date of 12 years. The lake could also help mitigate potential flooding by controlling run off from the Upper Thames catchment area. 2. At present most of the water for the Severn Transfer would be provided by the waste water treatment at Netheridge. At this stage of the Severn's course this would be adequate for the CCSTT plans. All the pipeline proposals are based in extraction at Deerhurst -well upstream. The availability of water will be less. 3. Any pipeline from Deerhurst to upper Thames will necessitate scaling the Cotswold escarpment. The canal route's inclines are far less challenging. 4. No pipeline whether above or buried in the ground will enhance its route. The CCSTT plan will continue the route already begun through Stonehouse and Stroud with the same sensitivity to ecological and economic values. A real contribution to the quality of surroundings and to the business activity near the completed section is very evident. 	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>5. 'Best Value' is based when calculated on the next 80 years. It seems a more thorough study of the CCSTT's calculations as well as that of the IWW for Today Report which suggest £750 £800 million might be a more honest assessment</p>	<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4226	<p>I would like to express my concerns about the proposed Abingdon reservoir as part of the Consultation process. -Our family lives in Frilford Heath, in close proximity to the proposed new reservoir. -My concerns are as follows:</p> <p>The project is designed as a single megaproject solution based on highly uncertain demand projections that could be wildly inaccurate. - A more scalable solution is required.</p> <p>The project would have a dramatic environmental impact to the local area -other solutions should be found that have lower impact on the environment</p> <p>More focus should be put on preservation of water resources and improving and maintaining the existing infrastructure</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>Forecasts for the amount of water required in the future, including for factors such as population growth, are derived in strict accordance with the Environment Agency's Water Resource Planning Guideline.</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we supply is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we've got a plan to fix it. We remain committed to reducing total leakage by 20% by 2025 and as part of our draft WRMP we're aiming for a 50% reduction by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment. We have examined scenarios to achieve leakage reduction sooner (and later), but the planning challenge we face is such that demand management and building new supply resources will need to proceed in parallel. To accelerate leakage would be very costly and as well as cost, much of our water network is under London and it would therefore be very disruptive to the population and businesses if we were to dig up too much of it at once. Tackling leakage is an important part of our future plans but it will not solve the water challenge we face on its own. We also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water.</p> <p>The environmental impacts of the proposals have been assessed as part of the Strategic Environmental Assessment (SEA) of the draft WRMP. This</p>	



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		<p>assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. The more detailed environmental appraisal, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Therefore, the potential environmental impacts have been taken into account in weighing up the pros and cons of the SESRO options compared to alternatives. We have started to explore how some of the most significant impacts might be managed and mitigated when the scheme is designed, as part of our Gate 2 submission to RAPID. For example, section 3.4 of our main report to RAPID (and figure 3.1) explain some of the key landscape issues and how we have taken these into account in deriving an indicative landscape master plan for the 150 Mm3 SESRO option. We will continue to develop our thinking on these issues, in close liaison with the local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p>	
4227	<p>What is the benefit of digging many, many miles of pipelines or a massive and very expensive reservoir which nobody wants when you have a ready made alternative via the canal route which could be put into use far more quickly and at less cost than your proposed solution. By the time your scheme is completed in the 2040's it will most likely be out of date for the needs at that time. You also vastly underestimate the value being attributed to a restored canal and seem to be out of line with many other organisations opinions. I hope you will be open minded enough to take all views into account.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4227	<p>Two things that we are all currently being encouraged to do are to be physically and socially more active and also to put environmental matters at the top of our list of priorities. When I compare your proposals to those of Cotswold Canals STT yours do not seem to remotely satisfy either of these objectives.</p>	<p>Thank you for your response. Our dWRMP24 highlights the challenges we face and sets out the actions we plan to take to maintain the balance between water supply and demand, providing best value for our customers. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. We have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife.</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>
4228	<p>Use winwin natural solutions: Prioritising naturebased solutions -like wetland creation -to help tackle flooding, pollution, and replenish water supplies, making sure every project improves wildlife.</p>	<p>While there exists a broad body of evidence regarding the feasibility of using nature-based solutions in flood mitigation, more limited evidence exists to suggest that nature-based solutions can 'hold water back' in catchments to the degree which would be required to offset drought risk. We have considered a range of catchment options across our supply area, and have ascertained those nature-based solutions which we can be confident will deliver supply benefits.</p> <p>In AMP8 we will consider nature-based solutions in more detail, as part of the Water Industry National Environment Programme (WINEP), with a particular</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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		<p>focus on establishing where nature-based solutions may mitigate the environmental need for abstraction licence reductions.</p> <p>In addition, it is important to note that the Water Resources Management Plan is not the only area of Thames Water which is considering the adoption of nature-based solutions, with multiple workstreams across the company considering and funding them to solve different problems. Different workstreams considering nature-based solutions have different drivers, and we map catchment vulnerabilities to understand where interventions will have the biggest impact. Drivers include water quality, improving urban drainage, river restoration and community engagement and education. Many of these programmes have recently been expanded to cover more of our supply area, built on a solid foundation of working over a number of years with community stakeholders. We know that we have further work to do to integrate our view of drivers for and benefits of NBS, and this is something that we will continue to do in future planning cycles.</p>	
4228	<p>I am concerned about the impact of water overuse on the rivers in our area, and beyond across the region. Your draft Water Resources Management Plan recognises these threats but does not go far enough towards resolving them. The plan must commit to greater action to tackle excess use and its causes. This is vital to ensure that future water supplies are sustainable in the face of a changing climate and growing population, and are secured with minimal impact upon local rivers, lakes, wetlands and wildlife.</p> <p>I add my voice to the calls for more sustainable water use. I want to see your plan: Prioritise nature: Ensuring that having enough water in our rivers to support healthy and abundant wildlife is a top organisational priority.</p> <p>I expect a bold regional plan to set the framework for that I trust you will reflect the above points when refining and publishing your final Water Resources Management Plan.</p>	<p>Thank you for your response. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first.</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>
4228	<p>Reduce water use: Helping households and businesses save water and supporting vulnerable customers, and significantly reducing leakage.</p> <p>I want to see greater ambition on ending the harm from overuse</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Support of Vulnerable Customers We are very aware that some of our customers are more vulnerable to large scale changes in water use. When discussing policies such as tariffing and non-essential use bans, we need to make sure that these customers are not mistreated, and that everyone has access to the water that they need. We currently maintain a priority services register of customers who may require more support, and we are going to continue maintaining this into the foreseeable future.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23</p>	



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		<p>have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is</p>	



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		<p>such that demand management and resource development have to proceed in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	
4229	<p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p>	<p>Thank you for your response. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p> <p>We have linked the timing of our environmental destination scenarios with the lead times associated with our environmentally resilient large water resource options. Therefore, the programme can't be delivered earlier.</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>



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4229	<p>I am writing to you as a customer of Thames Water in response to the public consultation on your draft Water Resource Management Plan 24 (WRMP24). I care about our precious rivers in the south east of England, especially my local river. I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. I work as a litter picker along the wandle river.</p> <p>I hope you will help us take the action needed.</p>	<p>Thank you for your feedback. An important part of our draft plan is to reduce unsustainable abstraction and improve the environment and we have adopted the highest scenario for environmental ambition in our draft plan.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4229	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030. · Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres; This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH</p>	



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		<p>customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4230	<p>1. The perceived future need is based on an unrealistic population increase. The ONS figure is about half the figure used in this scenario. Even allowing for largescale immigration to this region from elsewhere in the UK, it is unlikely to reach the level envisaged in the WRSE document.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4230	<p>2. The increased demand due to climate change is at one extreme of the range. A more realistic base for the future demand would be a median value for temperature rise.</p>	<p>Within our planning we have considered a wide range of climate change evidence. As described in Appendix U, we have undertaken extensive modelling based on scenarios other than RCP8.5 (we have considered RCP2.6, RCP4.5, RCP6.0 and RCP8.5) - the scenario initially considered RCP8.5 due to the importance of considering a coherent climate change scenario across the WRSE region. We have mapped the climate change</p>	<p>No changes as per our consideration</p>



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		<p>impact pathways which we have adopted and have found that our 'high', 'medium' and 'low' scenarios represent approximately 75th, 50th, and 25th percentile trajectories respectively.</p> <p>While our preferred programme has adopted a pathway which follows a 'High' climate change trajectory, it is important to recognise that our plan is adaptive, and we will be able to adopt a different investment programme in the future should we find that climate change projections in the future are lower than those in our preferred programme pathway.</p>	
4230	<p>3. As most households are now metered, it would seem acceptable and feasible to charge heavy users more than light users per litre, as a disincentive, thus favouring conserving this precious and limited resource.</p> <p>4. There is too little recognition of the need to fix existing leaks. This is unlikely to achieve the required improvement in supplies but it would go a long way towards it, and would be seen by the public as a responsible attitude and policy for the commercially sensitive companies such as Thames Water to adopt.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased</p>	



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		<p>water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	
4230	<p>I wish to express my concerns about the current proposals for securing future water supplies to people living in this area. I happen to live in Frilford and there would therefore be an enormous environmental impact if the reservoir were to be built, in the protracted period while the construction work was in progress. However, that is in a sense, incidental.</p> <p>I make no observations about other possible actions such as recycling grey water and river transfer, though I am sure these and other such actions do have a part to play in arriving at the best solution to this challenge.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>We also continue to investigate water recycling schemes in London as part of the RAPID process. Our preferred plan includes for a new river abstraction at Teddington supported by water recycling from the early 2030's.</p>	
4231	I am deeply concerned about water catchment areas in the south east of England, especially my local river, The Wandle. I have witnessed the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve.	Thank you for your feedback. An important part of our draft plan is to reduce unsustainable abstraction and improve the environment and we have adopted the highest scenario for environmental ambition in our draft plan.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
4231	Adopt more ambitious targets for the roll out of smart meters, with near 100% coverage by 2030 and match, or better, other companies target to reduce water usage to 110 litres per person per day. Continue to put in place reduction in demand measures, including the targeting of very high water users, such as leisure and packaging businesses and significantly more ambitious leakage mitigation measures.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and</p>	



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		<p>efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install</p>	



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		<p>water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data. We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4231	<p>I invite you to consider the following: Accelerate work to reduce abstractions on the Hogsmill chalk stream, the Darent, Cray and Ravensbourne. Bring forward the timetable for options, including the proposed reservoir near Abingdon, to replace the Teddington abstraction scheme, which will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife.</p>	<p>Thank you for your response to the consultation.</p> <p>We are committed to protecting the environment and our rivers. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 MI/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking up over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. In terms of concept, the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Teddington scheme would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We'll need a combination of measures to address the shortfall.</p> <p>The new reservoir – the South East Strategic Reservoir Option (SESRO) – expected completion date is 2040. Building a reservoir on this scale is an ambitious and complex project, which requires significant stakeholder engagement and a thorough planning process. Due to the scale of the project, it will take a significant amount of time to build. Planning consent for construction is planned by 2030 and water would be available by 2040. This timeline is as quick as practicably possible whilst following the national planning process and ensuring that all environmental and engineering studies are carried out with sufficient rigour to satisfy ourselves and all stakeholders.</p> <p>A Water Quality Assessment has been completed which concluded that the scheme will have a negligible impact on the majority of WFD chemicals, EQSD chemicals and Olfactory water quality. There are some WQ parameters which require further assessment to understand the level of additional treatment that might be required to ensure that the discharge water quality is appropriate. This work is still underway.</p> <p>The level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames, downstream of Teddington Weir. The treatment parameters would be defined by the Environment Agency, but our current proposal is a level of treatment that balances the spatial constraints that we have at Mogden Sewage Treatment Works, best value for our customers and water quality. We feel that our current proposal effectively balances these factors without significantly increasing the risk of environmental impacts.</p>	
4232	I am writing to support the adoption of the Cotswold Canals SevernThames Transfer as the best means of moving water from the Severn to the Thames as part of the drought alleviation scheme for South East England	Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we

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	<p>This appears to be a far superior option than a fully piped /reservoir option as it would:</p> <ol style="list-style-type: none"> 1. Be completed far quicker than the alternative approach 2. Offer significant environmental and social benefits that a buried pipe cannot provide 3. Offers much better value than the piped option because of the benefits mentioned above <p>I understand that the social and environmental benefits of the Cotswold canals option has been authoritatively assessed as amounting to a sum in the region of £800 million, which far outweighs any cash cost comparison between the two schemes. As it offers far better value and -is a technically sound proposal it would be strange if the fully piped/pumped option was preferred</p> <p>Any concerns over certainty of operation; maintenance or ownership can surely be addressed -so I hope that sense prevails and the Cotswold Canals SevernThames transfer proposal is adopted</p>	<p>events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>received about the Severn Thames Transfer.</p>
4233	<p>On behalf of Abingdon Allotment Association, would like to have an enlarged map of the proposed access road @marcham road. With colour key explanations please.</p> <p>(spoke to Eliot at the event about this)</p>	<p>The route maps are subject to change. We will ensure we route the access road to minimise local impact on the allotments.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4234	<p>Population Growth:</p> <ol style="list-style-type: none"> 1. Several organisations, especially Councils (County, District & Town) and organisations representing local community interests, have commented 	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a</p>	<p>We have provided information in response to your comments,</p>



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	<p>adversely on one of the principal underlying assumptions. There is evident concern that the population growth forecasts are exaggerated.</p> <p>2. The reduced rates of abstraction from some rivers, ruled by the Environment Agency are laudably correct as an essential nature conservation measure. However, there is recognition that the precise volumes need further work before definitive determination.</p> <p>Regrettably, whilst congratulating Thames Water on its elegant and seemingly sophisticated draft WRMP, I am unable to support the document. The Plan as conceived, both strategically and technically, does not demonstrate that, if implemented, it would be in the best interests of its immediate customers, let alone the national population.</p>	<p>range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.</p> <p>We recognise there is uncertainty regarding the reduction in volumes to be abstracted and therefore we have used a range of scenarios for this within our adaptive plan to ensure that our plan have pathways which align with the precise volumes.</p>	<p>there are no changes as a result of your representation.</p>
4234	<p>Best Value Plan:</p> <p>1. In section 11 of the Technical Report there is seemingly the most extraordinary contradiction, concerning the assumptions about innovative techniques, upon which the Plan has been based, namely on the one hand, caution:</p> <p>‘11.26 Our programme is one that is evidence based and which we consider strikes a balance between ambition and the risk of under-deliverability of reductions. If we were to over-rely on as yet unknown innovative techniques, there is a risk that these may not materialise, posing a risk to security of supply for our customers and further stress and pressure on the environment. and, on the other, as yet unknown activities:</p> <p>‘11.27 As such we have developed an evidence-based approach, considering programmes of delivery of demand options that are feasible, and using evidence-based assumptions to derive total demand reduction volumes that we can be confident in. We have included leakage and consumption reductions that would be delivered through ‘innovative’ activities (which are not yet known) but have limited the volume of reductions that we assume would be delivered through these as yet unknown means.’</p> <p>2. Even if such descriptions were not meant to be contradictory, but reinforcing, such seeming anomalies are unlikely to breed confidence in readers!</p>	<p>Thank you for your interest in this topic. In the draft plan, 11.26, we explain that we cannot over-rely on unknown future developments. For example, it is often put to us that in the future desalination will be universal on the back of technology improvements and energy from nuclear fusion). That might be possible, but it's a high risk plan for water security at this stage. However, in 11.27 we explain that limited anticipation of innovation, particularly in demand management techniques, is necessary and manageable if we are to meet the significant leakage reduction and demand management targets. We have seen over time water using appliances become more efficient and new ways to detect leakage for example.</p> <p>It's a question of scale. The level of contribution to the solution. We cannot be over-reliant on innovation, but equally it would be wrong to ignore it entirely. Future forecasting relies on regular review. WRMPs are fully re-stated every 5 years and reviewed annually. This allows us to track technology improvements and include them in our optioneering once they reach commercial viability.</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.</p>



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	<p>- OA fundamental strategic and technical re-think is required before a credible Pan receives my support.</p>		
4234	<p>* Biodiversity Impacts: It is understandable that initially attention should focus primarily upon how designated sites (NNRs, SSSIs, LNRs etc) might be affected. -That the assessments should rely initially upon previously published maps and inventories is also recognised. -However, as recommended by Mott Macdonald site specific investigations need to be undertaken in the case of important sites that will be potentially impacted. -That applies especially in the case of both Cothill and Oxford Meadows. -Moreover, such recommendations need to be extended to all of the natural habitats and wildlife features impacted by the proposed Abingdon Reservoir. -</p> <p>To the extent that no specific either habitat or species surveys have been conducted in the associated area, points to the fact that the draft Plan is not fit for purpose. - The fact that one monoculture (open water) is proposed to replace another type of monoculture (largely arable land) is no reason for failing to consider the impacts upon the terrestrial and water based habitats, along with the wildlife species what already exist. -That applies particularly to wildlife corridors provided by hedges and to nesting sites for song birds. -Populations of the latter have been under serious decline over the years, such that further possible reductions should not be ignored.</p> <p>* Fudging the BNG: 1. Mandatorily, WRMPs are required to provide a 10% net gain in terms of ecosystem services. -The TW Plan is not realistically clear on that count. - Indeed, the authors of Appendix AA state that: ‘The plan is likely to result in a loss of BNG habitat units due to the permanent loss of natural capital assets during construction. Mitigation and enhancement opportunities for the scheme have been suggested within Chapter 4, which can work to better BNG and introducing environmental net gain. Alternatively, credits can be bought by developers as a last resort when onsite and local offsite provision of habitat cannot deliver the BNG required. Thames Water’s</p>	<p>The detailed environmental appraisal for this scheme, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions).</p> <p>We have started to explore how some of the most significant impacts might be managed and mitigated when the scheme is designed, as part of our Gate 2 submission to RAPID. We will continue to develop our thinking on these issues, and the collection of baseline field survey data to inform them, in close liaison with regulators, interest groups and the local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved. We consider that the level of detail of the assessments reported to date for this scheme is appropriate to the strategic nature of the water resources management plan and to the current planning stage for this scheme, the requirements of which are stipulated by our regulators.</p> <p>Our draft plan is clear that a biodiversity net gain of at least 10% will be mandatory under law for relevant schemes. We have continued our work in this area within our WRMP24 with the development of our BNG strategy, a holistic delivery strategy to achieve ambitious net gain of at least 10% across our Non-SRO and SRO options as part of our plan. We can confirm that in developing this strategy, we have followed the BNG mitigation hierarchy as is best practice, and we have also looked at opportunities for strategic offsetting sites to deliver more effective net gain for multiple options. Credit purchase was referred to in our draft plan as a legitimate 'worst case' scenario to ensure that in the absence of more detailed work that we could</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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	<p>BVP would require the purchase of 1819.28 units. The price of biodiversity credits will be set higher than prices for equivalent biodiversity gain on the market'. - 2. That in itself is not confidence inspiring.</p>	<p>evidence our intentions to meet our statutory requirements for our plan. Our work since the draft plan in developing our strategy has provided more detail around our plans for mitigation and improvement.</p> <p>This strategy is available as part of our revised draft plan (within rdWRMP24 Appendix AA), and we will continue this work over future planning cycles.</p>	
4234	<p>At first sight the document is impressive. -The presentation is both elegant and seemingly sophisticated, in conformity with both national guidelines and those provided by the EA, Natural England and Defra. However, I am saddened to find that the document is seriously flawed. -</p> <p>Management Plan Impact Assessments:</p> <p>* Economic Impacts: . - -Contrary to personal hopes, the document does not provide an overall socioeconomicenvironmental costbenefit appraisal. - That may well be due to the fact that the task is not realistically feasible. . - - -The need for transparency is paramount, especially when quantitative assessments are difficult.</p> <p>* Food & Energy Production: . This component appears to have been largely sidelined. In view of the good quality (ALC) of the land (Grade 2 and 3), it is surprising that this particular component has not received more attention. -Nationally, the security of domestic food supplies – along with water – is regarded as increasingly important. -This stems from the facts that, with regard to most foodstuffs, we cannot be selfsufficient and -the economic climate for foodstuffs internationally is becoming less favourable and more risky.</p> <p>. Equally disturbing is the fact that the full details of the economic impact, as assessed using the ENCA Guidelines (Aug 2021), have not been divulged. -The overall change in value through the loss of food production has been shown as £146,502 per year (Appendix AA, Table 4.2 , p 73). From personal experience,</p>	<p>Thank you for your comments. As you set out in your first paragraph, the WRMP is a strategic plan and has been prepared in line with government and regulatory requirements. The additional assessments that you reference will be addressed through the scheme level assessments in preparation for planning consent, which would be the next part of the process should the strategic plan be approved. There will be multiple opportunities for scheme-specific engagement and consultation and we have appointed dedicated engagement managers for each of the strategic schemes which are included in the WRMP which will help to ensure we engage effectively with the local community going forwards.</p> <p>SESRO (South East Strategic Reservoir Option) would be a new storage reservoir in the Upper Thames catchment, south west of Abingdon in Oxfordshire. The reservoir would be filled with water from the River Thames during periods of high river flow. When river levels drop or demand for water increases, water would be released back into the River Thames for re-abstraction downstream. This reservoir would supply water for Affinity Water, Southern Water and Thames Water customers.</p> <p>The regional-led work has shown that we need a reservoir of at least 150 Mm3 . If we were to build a reservoir smaller than this, we'd need to introduce additional schemes by 2040, resulting in a more complex, risky and expensive overall plan. Planning consent for construction is planned by 2030. Water would be available by 2040. Because of the arrangements for financing the reservoir with Affinity and Southern Water the reservoir would not generate profits for Thames Water through sale of the water.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>having worked with the late Prof David Pearce (Univ of London) on several National Conservation and International Protected Area Strategies, it is known that economic impacts – based purely on desk studies – are often prone to the use of ‘heroic assumptions’. -Furthermore, rather than discounting the future annual values of food production lost, a strong case can be made for their acceleration. - -</p> <p>* Social/Community Impacts: . - -Not surprisingly, the need to consider the full range of practical mitigation measures, including financial compensation, do not appear to have been addressed. -Whilst many of the impacts e.g. for asthma sufferers and longterm local residents can never be fully met through financial compensation, that is a dimension which nonetheless needs to be addressed. -In peacetime, a moral case for any public or private organisation to ignore minority views in the supposed interests of a wider public good has yet to be convincingly be made. - The inhabitants of East Hanney, Garford, Drayton and Steventon are unlikely to accept the introduction of a large structure, the primary function of which is planned to meet the water needs of distant communities served by the Affinity Water and Southern Water companies. -No mention of any measures either to recompense or to incentivise the inhabitants is mentioned. -</p> <p>* Landscape Impacts: . Artist impressions have been prepared depicting the impact of the new landscape at eye level 15 years after its completed construction. -The principal landscape components are described as grass, trees and some shrubs. -Unless the level of regular care and attention to these components, especially the latter, is of a very high and therefore expensive level, it is likely to be approx. 30 years (especially on the south and south western slopes) before the new landscape appears natural, even then an extensive 80 foot tall feature may well read as being out of character in what hitherto had been a natural flood plain. . The methods of managing and maintaining the grassed embankments should ideally be explained. . Such exaggeration does nothing to endear any understandably sceptical readers. -It merely heightens the suspicions aired earlier about other</p>	<p>There aren't many suitable sites in the South East for a new large reservoir, as they need to be close enough to a large river with the right underlying geology, which limits the options significantly. We looked at a wide range of sites and the site in Oxfordshire for a large reservoir is the preferred. There are other new reservoirs being proposed in the draft regional plan - one in Hampshire, and one in West Sussex. A new reservoir would provide increased drought resilience. In a drought, it's hard to predict exactly when we'll need extra water supplies. The reservoir would ensure readily available water supplies and increased resilience to our changing climate. The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes.</p> <p>A new reservoir would require us to produce an EIA (Environmental Impact Assessment), this would be consulted on extensively and scrutinised by a range of statutory bodies including Natural England, Historic England and the Environment Agency, as well as the county highways, county ecologist and archaeologist teams. We would aim to work collaboratively with statutory bodies as well as the local communities to ensure that the impacts were managed to the highest standards. Lakes, rivers and reservoirs are all key features of our landscape and environment. We would work with the country's leading environmental specialists to design the reservoir to enhance both the landscape and environment by providing new aquatic and terrestrial habitats that encourage greater biodiversity and move away from the predominantly monocultural arable farmland that presently characterises the area. We would also explore the potential for developing carbon capturing wetlands. Thames Water has successful a long and successful track record of doing this at the London Wetland Centre where we have worked for over 30 years with the Wildfowl & Wetland Trust to create one of the UK's most important wildlife sites and most popular visitor attractions.</p> <p>It is understandable that those located close to proposed major infrastructure</p>	



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	<p>components of the Plan. -No scruples should be spared in ensuring total transparency.</p> <p>* Predicted Impact on Natural Capital Stocks . Table 3.9 (p 68) of Appendix AA does not make good reading, in terms of diversity. -In essence, a monoculture of 'lakes and standing water plus ponds and linear features' (totalling 524.71) is far less diverse than the existing 'monoculture' of terrestrial features likely to be replaced by the Plan ((744.42, in total).</p>	<p>projects will have concerns and we want to work with them to understand and take measures to mitigate them. Consultation forms a central part of major development and we will consult fully with a wide range of people including the local community as we develop our plans taking their views into consideration so that we can deliver a facility which brings benefits to the community economically, socially and environmentally. The reservoir will not increase the risk of flooding in the area. It would be built on some of the existing floodplain associated with tributaries of the River Ock and therefore flood compensation measures will be included in the design to leave flood risk at a lower level than if the project hadn't taken place. In addition, the reservoir could potentially improve flood risk management in the Abingdon area, work is ongoing with the Environment Agency on this. This work will be shared in an open and transparent way when it is complete.</p> <p>In developing the WRMP24 and wider plan for the South East, a fresh and objective look has been taken at the challenges facing the region and how best to solve them, looking beyond the boundaries of individual water companies to identify the options that will provide resilient supplies more efficiently and provide wider benefits. In terms of new infrastructure, desalination plants and water recycling are viable potential options which could form part of an overall plan for the south east. For further information on the scheme see our Statement of Response and revised draft WRMP.</p>	
4234	<p>Strategic Planning:</p> <p>1. The scale of thinking needs to be stepped up significantly -to that of national rather than regional and local. -This requires both vision and technical innovation to be demonstrated as exemplified in the Victorian era when much of the country's infrastructure was both funded and built.</p> <p>2. The focus on southern perspectives -needs to be replaced by a national strategy in which priority attention is devoted to harnessing the periodic water surpluses of the north through a transfer system to the south. -Investment in such infrastructure, whilst inevitably costly, could contribute significantly towards implementation of the Government's laudable 'levelling up' policy. - In short, the strategic options explored should be widened to include the national supply and</p>	<p>In 2020, the Environment Agency published the first 'National framework for water resources' transforming how we plan future water supplies. It set out how water companies and other large water users must work together in regional groups to understand and plan for our future water needs while protecting the environment. We've worked in collaboration with the five other water companies in WRSE to develop a plan for the whole of the South East region. This collaborative approach means we can look beyond our individual boundaries and identify what will deliver the most benefit across the South East for the long term. The SE plan is just one of five regional plans being developed to meet the country's future water needs. WRSE has worked with other regions across the UK to make sure the regional plans fit together to provide a joined-up national solution.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>storage (including aquifer recharge) perspectives.</p> <p>The current headline concern about the high levels of river pollution from sewage and farm runoff necessitates a rethink of the scale of this particular measure. -Seemingly, it makes little sense for more water to be left in rivers for it merely to be polluted by known sources; especially since there is doubt about the implementation of related financial penalties. - -</p> <p>The delegation of water resource management to private monopolistic service providers is in need of serious review, based upon past performance regarding leakage reductions and river pollution levels.</p>	<p>Water transfers have been considered as one of the potential options in the development of the SE regional plan and accordingly our WRMP. The Grand Union canal scheme is part of the SE regional plan as are other transfers across the SE region and with neighbouring water companies. The Severn to Thames Transfer (STT) is not included in our revised draft plan, with the extended programme of leakage and demand reduction it is not selected as part of the best value plan but we have recommended that we should continue to progress work on this scheme should it be required in the future. Regulators, in their representations to the draft plan, set out the need for further studies and assessments on the STT, particularly in regard to resilience and environmental impacts, to ensure the scheme is compliant with all the required legislation.</p> <p>On the discharges of untreated sewage, it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of 2022 we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>With regards to leakage, we're investing significantly to tackle the amount of water that is lost from our water pipes. We remain committed to reducing total leakage by 20% by 2025, and in our draft plan we have committed to halve the amount of water we lose through leaks by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment.</p>	
4234	<p>Management of Consumption: . Professor Dieter Helm and others have long emphasised the importance of this component, which has resulted in the issuing of 2050 targets by the Government for reductions in average daily consumption levels per head. Such</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>leadership is welcomed. However, the view, expressed by Thames Water, that the target is both unachievable and beyond its control makes bad reading; especially since a virtue is made out of adopting a conservative stance. That is not in the public good. The leaders of the Water industry should surely be bringing maximum pressure on Government to adopt measures that will result in its target being universally met?</p> <p>. By presenting a message that TW assumes that it will be unable to achieve the Government’s target sets a very bad example to the general public and all other water consumers.</p> <p>. There is a need for large scale retrofitting of the supply infrastructure, such that both public and private consumers are enabled to use separately available potable and ‘grey water’ appropriately. The failure to address this within the 50 year timescale is a major omission.</p>	<p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years’ performance. Despite this we remain committed to doing everything</p>	



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		<p>we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Grey water reuse and rainwater collection Rainwater harvesting has been considered as a demand reducing measure. We have previously offered water butts for garden usage and continue to promote rainwater capture within our multi-channel customer engagement activity. Scaling up, the difficulty is that retrofitting either rainwater and/or greywater system technologies into existing properties is extremely challenging and the fittings are not readily market available. We believe there are better opportunities to increase water use systems into new developments, particularly large ones, at the design stage. We have recently launched an industry first Environmental Incentive for developers, offering financial incentives to embed water efficiency fittings, water reuse technologies (RWH/GWR) and deliver 'water neutrality' for any new housing development in our supply area. This incentive model is being promoted to developers, planning authorities and regulators. We have also worked closely with Defra and other government areas, on efforts to strengthen future Building Regulations, so that water reuse technologies and requirements become business as usual.</p> <p>Government-led water use reduction policies In addition to the actions we can take, the government is planning to</p>	



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		<p>introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits.</p> <p>Direct incentives are unlikely to be large enough to influence house builders. We are working with several government-led steering groups to scope future mandatory water labelling and strengthen the water efficiency standard of new build properties and tighten water regulations. These standards may see alignment with the proposed mandatory water labelling scheme, and fitting of grey and rainwater harvesting systems become business as usual.</p> <p>Expectations that the government will take future action are included in our forecasts.</p>	
4234	<p>Understandably, a major objective of the BVMP is that it should be adaptive. - Yet the draft MP by virtue of the proposal to commence construction of an 100 Million cubic metres Abingdon Reservoir is anything but adaptive. -It commits to an extensive above ground storage facility as an early permanent feature. -The principal clients, to which it relates are located far from that structure, namely customers of Southern Water, Affinity Water and London.</p> <p>Water Supply Components: -The two main components of the Plan, upon which I have focused attention are the proposed Abingdon Reservoir and the Severn Thames Transfer (STT) by pipeline -</p> <p>Abingdon Reservoir (100M cubic metres): * Because of the exaggeration of population growth assumption and the ill determined reductions in river water abstractions, a credible case has not been made for the reservoir, the impacts of which have not been fully assessed.</p> <p>* No attempt has been made to estimate the cumulative economic impact of the reservoir over its predicted lifetime. -Such omissions are disturbing.</p> <p>* Table 3.9 of Appendix AA (p 68) prepared by Mott Macdonald, includes an estimated loss of 486 ha of arable and pasture land as a result of the proposed</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>100 m cubic metres Reservoir construction.</p> <p>* Also disturbing is that the impact of the proposed reservoir upon an existing solar energy enterprise does not feature in the Plan.</p> <p>* Neither the Summary of the draft Plan nor the Technical Supporting documents appear to address the socioeconomic impacts of the proposals at either regional or local scales. -Those are serious omissions. -Inevitably, there will be a range of human reactions to the nature and scale of changes proposed. -That would especially be the case were a large Abingdon Reservoir to be constructed. -The impacts would include air pollution from dust, noise, traffic problems and adverse road conditions, sensory, visual, human stresses and microclimatic changes. -The social impacts of changes to local property values - before during and after construction – would be a serious additional factor.</p> <p>* Little or no attention appears to have been devoted to ensuring the safety of the reservoir against either natural hazards (earth tremors) or terrorist attack. - That is a serious omission. -Indeed, an overall risk assessment, coupled with consideration of contingency measures, is surely required before the Management Plan receives approval. -</p> <p>* It seems curious that no attempt has been made to estimate the impacts upon the local communities, infrastructure etc were the reservoir to either collapse or release its contents, resulting in major flooding.</p> <p>* The authors of the Plan have assumed that the proposed reservoir will provide a major new recreational facility in the locale, offering sailing, boating, canoeing plus walking and picnicking on its grassed margins.</p> <p>* Despite the major security risks, such an assumption has gone unquestioned. - Furthermore, an estimate of £249,021 per year has been included (Appendix AA Table 4.2, p.73) as the overall change in value that these components of the proposed reservoir would contribute. -Again, the details of how this economic impact – based solely on a desk assessment – was estimated have not been</p>	<p>the transfer may actually be needed by customers in the Midlands and North West</p> <ul style="list-style-type: none"> The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they’d prefer a new reservoir over other schemes. <p>* Forecasts for the amount of water required in the future, including for factors such as population growth, are derived in strict accordance with the Environment Agency’s Water Resource Planning Guideline.</p> <p>* The socio-economic impact of the reservoir has been appraised and documented within our Gate 2 submission to RAPID. The overall best-value planning framework for WRSE and the WRMPs does not include a full socio-economic appraisal for the options, instead relying on the cost, carbon, environmental, resilience and customer preference metrics to derive the best value plan.</p> <p>* The costs of compensating for the potential loss of the existing solar energy enterprises on the SESRO site are captured within the economic costs of the SESRO options.</p> <p>* We have undertaken an initial assessment of security risks as part of our work towards RAPID Gate 2, in order to ensure that the indicative master plan we developed would be in accordance with Thames water asset safety and security standards. Table 4.3 in our Gate 2 submission confirms that <i>"There is a need to ensure the constructed infrastructure is robust and secure. In keeping with other reservoir sites, access to vulnerable assets will be tightly controlled. Access points, namely at the pumping station and riverside shaft, shall be tightly controlled as per all other Thames Water / Affinity Water infrastructure. The emergency drawdown siphons would be almost entirely buried, with the stilling chambers made secure by local access barriers / fencing. Thames Water currently allows safe public</i></p>	



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	<p>divulged. -</p> <p>* Even if GCHQ and other appropriate organisations were to be consulted and to deem the risks associated with potential security threats to be low, the Plan makes no reference to the need for and therefore annual costs of 24 hour surveillance.</p> <p>* Cumulative Economic Effects Assessment: 1. Table 4.2, concerning the impacts assessed for the 100 million cubic metres Abingdon Reservoir, makes for hilarious reading on two counts. -The first relates to the claim that the annual change in recreational and amenity value (+ £ 249,021) will exceed the combined annual negative changes due to reduced carbon storage, natural hazards, air pollution removal and food production (£ 205,182) i.e. a beneficial difference of + £43,839. -The Table, however, claims the difference to be + £89,026 , without any explanation. 2. Having personally been involved with the planning of several local and regional Recreation Plans in the past, the difficulties of making reliable economic and financial predictions are familiar. -The lack of transparency associated with the recreational – as well as the food production – estimates is incredible. -In short, the reliance for claiming that the Plan as presented contributes Best Value, can only be deemed unproven, because of the unknown (for security reasons) feasibility of providing any recreational activities within the area of the reservoir. 3. The second source of humoured derision is the presentation of estimates to the second decimal place! -The failure to provide ranges of estimates for each of the components adds to the spurious nature of the whole exercise. -</p> <p>STT: * The Plan seems to have been based upon existing technology without adequate acknowledgements that significant advances are likely to be made during the lifetime of the Plan. -That applies particularly in the case of harnessing renewable energy both for desalination and pumping purposes. -The failure to include an expanded role for desalination in the Plan, especially towards meeting the needs of Southern Water consumers is mystifying .</p>	<p><i>pedestrian access at Farmoor Reservoir and the Walthamstow wetlands site and similar arrangements are envisaged for SESRO. However, vehicular access to the dam crest at SESRO shall be controlled to manage the risk of damage."</i> We will continue to develop the design of the scheme to reflect all relevant and required safety and security issues, as we progress through the next stages of scheme development.</p> <p>* Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p> <p>* As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "<i>provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised.</i>" This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works.</p>	



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	<p>* An underlying cause for the lack of visionary thinking possibly stems from the seeming lack of research by Water Companies. -As a future supply option, desalination and other technical innovations, concerning – for example – rain water harvesting, the development of separate supply systems for potable and ‘grey’ water etc, deserve fuller consideration in the planning process.</p>		
4235	<p>Cotswold Canals SevernThames Transfer Scheme</p> <p>I write to support the development/restoration of the existing canal for the long term transfer of water from the South West to the South East of the country. The proposed scheme would enable the transfer of up to 300 million litres per day.</p> <p>The construction of a pipeline all the way from Deerhurst on the Severn to the Thames although possibly being a cheaper option would not create any long term benefit apart from carrying the water and would also lead to disruption to those on its route whilst being constructed.</p> <p>The use of the canal would have the added long term environmental and social benefits of creating more biodiversity and the social benefits of a canal environment providing recreational benefits for a wide range of people.</p> <p>The Cerney Wick gravel pits could further be incorporated to provide a reserve supply that could be initiated as an immediate response to any water requirements.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>It seems that the very strong support for this scheme that was demonstrated in the previous consultation does not seem to be considered in the latest plans and this seems to reflect a desire for a least cost rather than a long term best overall value solution.</p>		
4236	<p>The engineers are very knowledgeable and helpful. - I have completed the consultation form on line but was advised that the response to questions would not be provided until June whereas the decision on the abstraction plant will be made earlier than that. -This is very concerning and has not been made overly clear to the general public which concerns me -how will public views really be taken in to consideration?</p> <p>Please provide a simple and clear presentation setting out the proposals considered and the pros and cons of each taking in to consideration the environmental impact, cost, space and climate impact and other risks. -It is felt that the overviews are too simplistic and the detailed information is aimed at engineers and the EA.</p>	<p>Thank you for your feedback and we note your comments. The Secretary of State for Environment, Food and Rural Affairs will consider the feedback to the public consultation, and taking advice from the Environment Agency, will decide on the next steps for the WRMP, so to confirm no decisions have been made on the Teddington Direct River Abstraction scheme. If the scheme is included in the final WRMP it will then progress through planning and there will be multiple opportunities for scheme-specific engagement and consultation.</p> <p>We would like to reassure you that we are committed to working openly and transparently with all stakeholders, and community engagement and consultation is an important part of this. We have recently appointed a dedicated engagement manager for the scheme which will help to ensure we engage effectively with the local community going forwards.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4236	<p>Fears for the impact on river life, fish, insects and plants, because it may impact the biodiversity of the river including changes in the water temperature, oxygen levels and its chemical makeup.</p> <p>The scheme will also need the building of what many may consider to be an eyesore at the point where the water would be abstracted from the Thames.</p> <p>Thames Water claim this proposal will be safe as they are regulated. -We are worried that although fines may be imposed for breach, this is not enough to protect our river.</p> <p>Thames Water has repeatedly put profits and shareholders ahead of customers and environment; they were fined £51 Million last October for “missed targets” according to Ofwat.</p>	<p>We note your comments on trust and performance. In 2021 we published our turnaround plan and are committed to making progress in delivering the plan, which will improve levels of service day-by-day for our customers and protect the environment. We operate within a strict economic and environmental regulatory framework and government and regulators will hold the company to account to deliver against its commitments.</p> <p>Specifically in respect of the proposed Teddington DRA scheme, we have published the initial environmental assessments in the Gate 2 reports on our website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Work to date has shown that the risk of significant environmental effects during operation are low and where impacts are predicted mitigation measures are available to reduce the scale and magnitude. Our environmental impact assessment work is still at an early</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>Thames Water were given just 2 out of 5 stars by Environment Agency in 2021 for record sewage discharge and pollution to the Thames.</p> <p>I understand studies are based on meeting the standards of the river today. - Which part of the river and why no plans to improve?</p> <p>Surely given what we hear about climate change and how each micro degree hotter has an exponential impact, a full 1 degree C increase in the river temperature is something that needs to be seriously considered</p> <p>Trust -how can we really believe that Thames Water will do the right thing when fines are currently >£51m currently?</p> <p>The i paper advised last week that the EA doesn't have the bandwidth to monitor the water agencies and therefore how can this and indeed all other activities be appropriately monitored?</p> <p>The bonuses and pay packets of the TW team create a very poor perception in the public eye.</p>	<p>stage and further work will be undertaken over the coming few years to develop the design, mitigation and complete full impact assessments and Thames Water will only be able to promote the scheme if we can be confident there would be no significant impacts on the river or wider environment. We are working closely with the Environment Agency, Natural England and the Drinking Water Inspectorate and other stakeholders as we undertake this work. We are committed to ensuring there would be no deterioration of water quality at Teddington as a result of the scheme.</p>	
4236	<p>I have seen no visibility of plans to encourage users to use less water. Surely this is an easy win and we should all start NOW. Listening to Sarah on the Green Money Show with Deborah Meaden, Sarah said that she felt that TW should get themselves sorted first before asking anything from consumers. I totally disagree, we should all use less water and be given smart water meters asap.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation. "Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	



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		<p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p>	
4236	<p>I am particularly concerned about the proposed abstraction plant in Teddington. - I would like to understand more about this in particular</p> <p>1 -how strong is the suck to draw the water out? -And so what would the impact be on insects, small animals, plants and indeed humans?</p> <p>2 -we have been advised that the water that is put back in to the river will be clean. -I am very concerned about this particularly as Thames Water have a poor history in following the rule book. -That said, assuming the water is clean (and we have also been advised all parabens removed), how clean will it be and what more would be involved in treating the water to be clean enough to go straight to the reservoir?</p>	<p>To answers your questions in turn: 1) The attractant flow of the abstraction is being developed in conjunction with the Environment Agency at present. We are currently progressing updated modelling on the intake with an attractant flow of 0.05m/s, 0.1m/s and 0.2m/s which are very low velocities. The modelling completed in 2022 (based on 0.1m/s) showed that the attractant flow remains very localised to the intake (within 10m of the structure) and that the majority of the channel is unaffected, and not lead to a large ‘suck’ effect. The intake will also be fitted with fish/eel screens, with gaps of 2mm or less to prevent then organisms being sucked into the structure. The intake design will also require a ‘sweeping flow’ of river water across the screen to sweep any objects or organisms from the screen if they become stuck. 2) To provide a permit for the discharge, the Environment Agency will require the water to be of better quality than the water present at Teddington. We</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>understand the concerns around storms discharges, which are unacceptable, but this scheme is completely separate and there is no pathway for sewage discharges to be sent from Mogden to Teddington. The specific quality of the water to be discharged is still being assessed. We are currently developing bench testing to simulate the treatment of the source water through the proposed tertiary treatment plant to understand the quality of the recycled water. It may be that we identify that additional treatment is required for certain chemicals, which will then be fed back into the design process and retested.</p> <p>To enable direct discharge into a reservoir, a reverse osmosis filtration plant would be required, of which there is not sufficient space available at Mogden STW to house, so it is not possible for this scheme to accommodate.</p>	
4236	<p>Please advise why the dumps of effluent would not be more little and often rather than when the risver is low just before a drought. -It seems that at this time the biodiversity of the river would be at its most vulnerable. -</p> <p>How clean will the effluent be on a scale of 1 to 10 compared to the water that would go straight to Lea Valley? -I talked to Rob about the current discharged in Isleworth being about a 5/10 whereas he suggested if everything was managed to plan as his recommendations ity would be 7/10 maybe even 8/10. -Plans not 100% finalised I understand. -</p> <p>And what would be the cost to make it a 9/10</p> <p>On the plus side, Rob mentioned that through this work it may be possible to take out more chemicals than today and also if the water is clearer then this would be of benefit as more sunlight.</p> <p>I am very concerned about the impact to the path from Teddington Bridge to Kingston and have heard that the work will go for 3 years. -Please advise your plans for public access and also to mitigate the impact to wildlife.</p> <p>The petition has been signed by 13,267 people since 27 January (less than 8</p>	<p>The scheme is designed to provide water when reservoir levels are low and the river levels are also low, so the scheme provides 75MI/d or 100MI/d of replacement water to allow the same amount to be abstracted (slightly upstream). Operating more frequently at lesser capacity would not provide water when the reservoirs most need it (i.e. low reservoir levels and low river levels), and in these higher flow conditions the existing Thames Water intakes can arguably take sufficient water to maintain reservoir levels.</p> <p>The exact water quality is still be assessed and designed, but it will be of higher quality that that currently in the river at Teddington. The high-level quantification of water quality you discussed with Rob is correct in terms of the general characterisation. To achieve a '9/10' a reverse osmosis filtration plant would be required, of which there is not sufficient space available at Mogden STW to house, so it is not possible for this scheme to accommodate. Options featuring reverse osmosis treatment plants (Mogden Water Recycling and Beckton Water Recycling) are amongst other options being assessed, but due to the more extensive land take required to accommodate the larger treatment plants, as well as longer tunnels, these schemes would take longer to construct (and not provide water in early 2030 as required) and also costs significantly more. Nonetheless, they are still under consideration.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	weeks) -this shows that the population want an alternative. -PLEASE RECONSIDER.	Our current assessment are considering the terrestrial effects of the scheme, considering recreation, landscape, noise etc as well as terrestrial ecology. As these assessments progress mitigation requirements will be defined and put forward for consultation.	
4237	<p>I would like to comment on the alternative scheme that the Cotswold Canals Trust have put forward for the water transfer to be undertaken via the restoration of the Cotswold Canals SevernThames Transfer option.(CCSTT). The emerging WRSE acknowledges that there is "strong support" for the CCSTT. However a further comment states that this is a " more costly option " without any explanation or costing.</p> <p>Also no mention is made of any environmental and social benefits that the CCSTT would undoubtedly bring.</p> <p>The alternative of a pipeline will have none of those benefits. Also the pipeline seems predicated on the construction of a new reservoir not planned to be completed until 2040. The CCSTT option would not need a new reservoir nor pipeline and could be completed well before 2040.</p> <p>Please acknowledge receipt of my comments and keep me updated.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4238	<p>THAMES WATER DWMRP -SUPPORT FOR THE SUSTAINABLE COTSWOLD CANALS SEVERN THAMES WATER TRANSFER WITH SOCIAL AND ECONOMIC BENEFITS</p> <p>I would like to air my views on the proposed scheme “draft Best Value Plan” as published on 14 Nov 2022, for the transfer of water from the West of England to the South West that is being proposed under WRSE and your own DRWMP that completely fails to show any benefits to the environment and has not taken into consideration the need for 10% contract weighting under Govt policy to include both social and economic benefits. The proposed scheme is in highly simplistic terms to bury pipes and build a reservoir (which Thames have unsuccessfully attempted to do for a number of years) with none of the benefits that the use of the STT will realise. I am aware that over 25% of the responses to the Emerging Plan – 1100 in total – 300 0were pressing for the canal scheme to be utilised. It is clear that there is a need for water to be transferred, or for there to be built, at huge expense and needing large amounts of energy to run – de-salination plants on the East Coast and a waste-water treatment plant at Deerhurst. The former of which would have a highly negative impact through the brining of water they output. Desalination also produces about 1.5 to 1.7 litres of salty brine waste per litre of freshwater. When released back into the sea, this can increase the local salt concentration, potentially harming marine life, especially creatures found near the seabed, this is well recorded globally. In addition to the harm to the environment from the release of brine, there is the clear risk in an increased fossil fuel dependence, increased greenhouse gas emissions, and exacerbation of climate change if renewable energy sources are not used for freshwater production by de-salination and wastewater reclamation. Energy which this country simply does not have and energy will remain short in energy production for many years to come – has this been calculated for the use of energy to run these expensive plants?</p> <p>The canal restoration would bring multiple benefits, namely social, environmental and economic once restored, along with the ability to transfer water far more quickly than a reservoir or the construction of pipes and plant.</p> <p>The restored sections of canals throughout the UK have seen a resurgence in their use, both by those using the waterways (transportation and living) or enjoying the massive increase in bio-diversity along its banks and within its</p>	<p>Thank you for your representation. As you may be aware we have been investigating the canal alongside the pipe option for many years, and have held face to face community events to explain our position. The comprehensive conceptual design anaylsis we have undertaken, within the WRMP and also the more recent Ofwat requirement through their gated process, has provided further evidence that when compared, the pipe option has proven to be of high cost benefit. Details of this can be found in Appendix J that provides a brief paper that covers the STT feedback. For your information the river Severn transfer is no longer in our revised draft WRMP. The main reason reason for this is the increase in customer usage reductionto 110 liters per person per day, as part of updates to guidelines, has reduced the need of for supply options.</p> <p>In terms of desalination and the reservoir options, they both continue to be considered in our WRMP as feasible options. Our revised draft plan does not include desalination plants, but does continue to include the reservoir in 2040.</p>	<p>We have reviewed your representation and, although he matters included have been considered in the development of the case for the best option for the river Severn Transfer, no change is required to our plan.</p>



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	<p>waters. Birdwatchers, ramblers and anglers to name a few. What possible extra social and environmental benefits, as required by Government, can be derived from wastewater reclamation, desalination (both requiring large plants as blots on our landscape and using large amounts of energy – a commodity in which this country has a shortfall as stated) and a buried pipeline, that until finished will be a blight on the landscape. It can be argued that this would be short term only for employment in the construction only and exceptionally low in terms of employment once constructed – modern plants needing fewer and fewer on-site personnel due to atomisation.</p> <p>The Inland Waterways for Today states that there are 12 benefits to the ongoing maintenance and regeneration of our inland waterways – your scheme does not address or add to any of these in anyway whatsoever but simply plans to move water from A to B in a way in which you understand and feel comfortable with. These 12 clear benefits are stated below – all of which meet the governments desire for all contracts to gain 10% social and economic benefit -</p> <p>Economic</p> <ul style="list-style-type: none"> • Contributing to the country’s economic recovery • Increased spend in local communities • Savings to the NHS and social care budgets <p>Natural & Built Environment</p> <ul style="list-style-type: none"> • Protecting and improving the natural environment • Saving waterways heritage for future generations • Planning for resilience and climate change <p>Local Communities</p> <ul style="list-style-type: none"> • Connecting communities • Opportunities for education and young people • Opportunities for jobs, training and apprenticeships <p>Improving People’s Lives</p> <ul style="list-style-type: none"> • Improved physical health • Better mental health and wellbeing • Creating better places to live <p>All the above arguments are well argued, but totally discounted by you, at the following link –</p>		



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	<p>https://waterways.org.uk/campaigns/waterways-for-today</p> <p>I would argue that none of these benefits can be gained from your current scheme which has discounted a restored link between the Severn and Thames of a canal link. That as water companies you have simply devolved to the answer of being pipes and not thought outside of this where the canal could easily deliver, in very short term for the life of this project 300MI/d per day. Your scheme requires 500MI/d, but this is would only be available when there is enough water in the Severn – thus you would be simply robbing Peter to Pay Paul, and speculating future weather patterns in areas where this is problematic currently.</p> <p>The STT scheme would also deliver its water far more quickly than the proposed, and very controversial Abingdon Reservoir – with a start to build in 2025 and a lead time of c15 years – if all goes to plan and IF permission is granted – this would also only see a 185MI/d output – far less than the quicker STT scheme could realise, again, few of the above 12 benefits above would be forthcoming from a reservoir – which would no doubt be sealed off from public use due to “deep water”.</p> <p>Your plans have, thus far, discounted the STT as too costly, estimating that only £80m would be realised in real economic terms over 80 years, however, using the calculations in the Inland Waterways for Today, it is believed that you have massively understated this by some £720M, this would in fact make the STT and restoration of the canals the more economic scheme alone, without the added and required social and economic advantages to a working and restored waterways link between the Severn and the Thames.</p> <p>I would therefore urge that you re-consider the STT option in light of the above and the benefits that restoration of our national heritage brings – in that – The Cotswold Canals Severn-Thames Transfer is the best value strategic water transfer option.</p> <p>The better value The Cotswold Canals Severn-Thames Transfer should be implemented before the much longer lead time of the Abingdon Reservoir as it can deliver much more water and much sooner than this controversial scheme at the same time as addressing the water needs of other areas of the country rather than simply pipes and plants that would solely bring short term</p>		



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	employment to those employed in their construction with no long-term benefit other than the movement of water from A to B.		
4240	<p>The abstraction scheme being consulted on at the moment seems under researched- with no facts available on sound levels, visual impact, effect on wildlife and very little communication with locals.</p> <p>I am firmly anti this development until such a time that I can be assured there will be no, to little, impact on the river and all the people who enjoy it for it's many offerings.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river environment and ecology is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it.</p> <p>Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4241	<ul style="list-style-type: none"> · Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged; · It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable; · Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030; 	<p>Thank you for your response to the consultation and the generally supportive comments. Your concerns are noted and will be taken in to consideration.</p> <p>We are committed to protecting the environment and our rivers. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 Ml/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking more than 500 Ml/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. In terms of concept, the treatment of sewage and discharge of treated wastewater back into rivers occurs throughout the country. Upstream of Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>· Thames Water’s aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government’s target of 110 litres;</p> <p>· This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure.</p> <p>Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly. I hope you will help us take the action needed.</p>	<p>Teddington scheme would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards.</p> <p>We’ve looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We’ll need a combination of measures to address the shortfall.</p> <p>The new reservoir – the South East Strategic Reservoir Option (SESRO) – expected completion date is 2040. Building a reservoir on this scale is an ambitious and complex project, which requires significant stakeholder engagement and a thorough planning process. Due to the scale of the project, it will take a significant amount of time to build. Planning consent for construction is planned by 2030 and water would be available by 2040. This timeline is as quick as practicably possible whilst following the national planning process and ensuring that all environmental and engineering studies are carried out with sufficient rigour to satisfy ourselves and all stakeholders.</p> <p>We plan to make every drop count - We’ll plug around 50% of the shortfall by tackling leaks, we have set a target to halve leakage by 2050, and working with our customers and partners to make every drop count – including installing a further 1 million smart water meters in customers’ homes.</p> <p>We’re working with all our customers to encourage them to use water wisely. We’ve installed almost 700,000 smart water meters so far, and over 50% of our household customers now have a water meter. Our work has shown that having a meter can help you use around 13% less water.</p> <p>We fully support the government’s plans to introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits.</p> <p>Taking government-led and our own actions into account, we forecast that</p>	



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		<p>average water use in our area will reduce to the revised water company target provided by guidance of 110 litres per person per day by 2050. Thames Water is offering advice to households on how to limit their water usage and help to prevent any future shortages. This includes simple routine changes such as taking shorter showers, reducing use of the garden hose and turning taps off when brushing your teeth.</p>	
4257	<p>I wish to enter my support for the Cotswold Canals Severn Thames Transfer Option. This option seems to me to fulfil all the needs of transferring water between these two rivers while also offering more benefits of a restored canal.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4290	<p>I have already seen the devastating impacts climate change has had, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. Fortunately neither has seriously affected those rivers local to me but we shouldn't be complacent about the possibility of their happening in the future.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p>	<p>Comment is quite general in consideration of "The WRMP24" - Section 11 of our rdWRMP details our revised plan</p>
4290	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p> <p>Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres. This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? Thames Water should step up learning, innovation and testing to ramp up effective demand measures quickly.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9%</p>	



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		<p>reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4290	<p>I believe acceleration of action is required to protect our rivers and water resource for communities and wildlife now, and for future generations, as rivers are our lifeblood. There are key things that are vital to put in place by Thames Water to ensure this.</p> <p>Reducing abstractions from the environment is welcome: namely the abstraction</p>	<p>Thank you for your response to the consultation. Both protecting and improving the ecological health and water quality of our streams and rivers is central to our Water Resource Management Plan (WRMP).</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low</p>



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	<p>reductions at Epsom on the Hogsmill chalk stream, and also the planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.</p> <p>It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. . Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable.</p>	<p>proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. As an example, following the assessments so far, we have reduced the scheme size to ensure we protect the environment. We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality and landscape in addition to expanding our ecology survey programme.. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>The Teddington DRA scheme proposes discharging recycled water into the freshwater section of the River Thames upstream of Teddington Weir, requiring a greater level of treatment than would be required if the water were to be discharged into the Tideway section of the River Thames, downstream of Teddington Weir. The Environment Agency would determine the discharge parameters which we will need to comply to, but as a minimum we would expect the additional treatment to include:</p> <ul style="list-style-type: none"> - Dosing to remove excess phosphates; - biological sand filters to remove ammonia and suspended solids; and, - cloth filters to remove final solids - Additional treatment processes would be added as required. <p>A Water Quality Assessment has been completed which concluded that this proposed scheme will have a negligible impact on the majority of WFD chemicals, EQSD chemicals and Olfactory water quality. There are some WQ parameters which require further assessment to understand the level of additional treatment that might be required to ensure that the discharge water quality is appropriate. This work is still underway. Additionally, the</p>	<p>risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>scheme will not be linked to the existing sewage treatment processes at Mogden STW, and will instead be a new advanced (tertiary) treatment plant located at the Mogden site, meaning there is no risk of sewage water or storm overflow from entering into the Teddington DRA scheme.</p> <p>Given these considerations, the Teddington DRA scheme would improve the quality of the water in the Tideway section of the River Thames upstream of Teddington Weir while also balancing the spatial constraints that we have at Mogden Sewage Treatment Works and best value for our customers without significantly increasing the risk of environmental impacts.</p>	
4304	<p>Objection to proposed Abingdon Reservoir. The Severn Thames Transfer Scheme would be a far better solution, not only cheaper but far less disruptive to the environment in general together with a far smaller carbon footprint. It would also be far quicker to put into operation and be flexible. The proposed Abingdon reservoir would only produce 270 million litres per day when totally finished.</p> <p>Thames Water needs to open its eyes and realise that the proposed Abingdon reservoir is very likely to become a very, very expensive unnecessary structure and that the Severn Thames Transfer Scheme coupled with leakage reductions is by far the best, cheapest and most environmentally friendly solution to this long term problem of water supply.</p> <p>I really do hope that common sense prevails.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4304	<p>it has now been proven that the calculations of projected population increase which were used towards making a case for this reservoir were greatly exaggerated.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4304	<p>It is absolutely ludicrous to even suggest that Thames Water is aiming for the highest level of environmental improvements in the light of its terrible record of dumping sewage into rivers. Furthermore, the adverse environmental impact that the proposed Abingdon Reservoir would have on the surrounding areas would be massive and totally contradictory to Thames Water's claim of actually caring about the environment.</p>	<p>Thank you for your response. We regard all discharges of untreated sewage as unacceptable and are committed to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p> <p>A new reservoir would require us to produce an EIA (Environmental Impact Assessment), this would be consulted on extensively and scrutinised by a range of statutory bodies including Natural England, Historic England and the Environment Agency, as well as the county highways, county ecologist and archaeologist teams. We would aim to work collaboratively with statutory bodies as well as the local communities to ensure that the impacts were managed to the highest standards. Lakes, rivers and reservoirs are all key features of our landscape and environment. We would work with the country's leading environmental specialists to design the reservoir to enhance both the landscape and environment by providing new aquatic and terrestrial habitats that encourage greater biodiversity and move away from the predominantly monocultural arable farmland that presently characterises the area. We would also explore the potential for developing carbon capturing wetlands. Thames Water has successful a long and successful track record of doing this at the London Wetland Centre where we have worked for over 30 years with the Wildfowl & Wetland Trust to create one of the UK's most important wildlife sites and most popular visitor attractions.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>



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4304	<p>I understand that this obvious solution (STT) may not be popular with your shareholders as they would not benefit so much financially but some things are more important than pure profits!</p>	<p>Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.</p> <p>The requirement to plan on the basis of achievement of the 110 l/h/d per capita consumption demand reduction target has reduced the long-term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>	<p>The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>
4304	<p>The Thames Water Plan for reducing water demand is also totally flawed as it is based on outofdate information. Thames Water have estimated that by 2050, each person's water usage will be 123 litres per day. That is 14% higher than the other five water companies have estimated. A big rethink on this figure is definitely required by Thames Water. Furthermore, the scandalous leakage rate by Thames Water must be the first problem to be addressed as, by its own admission, 635 million litres of water are lost each day due to leaks.</p> <p>If Thames Water managed to fix just 43% of its leaks, it would save more water than Abingdon reservoir could supply and the estimated minimum £1.5 billion buildcost of this reservoir would go a very long way to achieving such a reduction in water leak losses.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p>	



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		<p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	
4304	<p>the WRSE plan for a new reservoir in the area bounded by Abingdon, Steventon and Hanney is not fit for purpose and, even after completion in 2037, it would only supply around one third of the water that is currently being lost through leaks.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often</p>	



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		<p>very small leaks.</p> <p>South East Strategic Reservoir Option (SESRO/Abingdon Reservoir) The SESRO scheme, about which you have concerns, is one part of a wider programme of resource development and demand management options. As a water storage solution, it is an important asset in the resilience against potential water shortages arising from forecast population increases and drought.</p> <p>The reservoir has the potential to offer a wide range of opportunities including creating a place that people would want to visit for their health and wellbeing, new accessible leisure and recreational facilities from walking, cycling, fishing, birdwatching and a wide range of water sports for all as well as providing opportunities to host sporting events with access to new facilities for local people. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for the local area and wider Oxfordshire.</p> <p>It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them.</p>	
4304	<p>I would like to express my outrage and my total opposition to the WRSE plan for a new reservoir in the area bounded by Abingdon, Steventon and Hanney. The financial cost of this unnecessary reservoir will be enormous and that money could be far better used to drastically reduce the water currently being wasted and to construct the Severn to Thames Transfer system (STT) which would cause far less environmental damage and produce a smaller carbon footprint. Furthermore, the STT scheme could be adapted and expanded and produce three times the capacity of the proposed Abingdon reservoir at a fraction of the cost.</p> <p>There is also the social impact of this proposed reservoir to consider, as this structure will be around 30 metres high and cover sufficient area to create its own microclimate which would adversely affect neighbouring towns and villages not to mention the drastic effect that it would have on the already high water table.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>There is also the constant worry for people living in the vicinity of such a reservoir. Any breaches to the walls of the structure and the consequences of some or most of the 100 million cubic metres of water (that's 100,000,000 tonnes) flooding out is a real concern.</p>	<ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we supply is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we've got a plan to fix it. We remain committed to reducing total leakage by 20% by 2025 and as part of our draft WRMP we're aiming for a 50% reduction by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment. We have examined scenarios to achieve leakage reduction sooner (and later), but the planning challenge we face is such that demand management and building</p>	



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		<p>new supply resources will need to proceed in parallel. To accelerate leakage would be very costly and as well as cost, much of our water network is under London and it would therefore be very disruptive to the population and businesses if we were to dig up too much of it at once. Tackling leakage is an important part of our future plans but it will not solve the water challenge we face on its own. We also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e.,</p>	



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		<p>impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p>	
4305	I would suggest i that, as far as increasing drinking water supply is concerned, fixing leaking pipes be prioritised.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed</p>	



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		<p>in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4305	<p>I write in opposition to the above plan. Whilst accepting, of course, that ensuring an adequate supply of drinking water is vital, and that one cannot ignore the need for proper disposal of re-cycled effluent (it has to go somewhere....). Effluent disposal arrangements could hopefully remain as they are.</p>	<p>Thank you for your response to the consultation. The Teddington DRA scheme proposes discharging recycled water into the freshwater section of the River Thames upstream of Teddington Weir. This would require a greater level of treatment than would be required if the water were to be discharged into the Tideway section of the River Thames, downstream of Teddington Weir. 4 The Environment Agency would determine the discharge parameters, but as a minimum we would expect the additional treatment to meet all existing and emerging environmental quality standards for freshwater. This will ensure we protect human health and the environment. The level of treatment proposed as part of the Teddington DRA scheme would improve the quality of the water in the Thames Tideway and if a higher level of treatment is required we will build this into our design as it develops.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4306	<p>Thames Water’s proposal should be on the agenda after clear plans and some success in stopping illegal raw sewage discharge.</p>	<p>The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>Alongside the challenges for wastewater we also need to plan ahead to ensure we have a secure water supply for our customers over the next 50 years and this is the purpose of our draft WRMP.</p>	
4306	<p>Thames Water's proposal should be on the agenda after clear plans and some success in plugging leaks. (I have read 25% of supply currently lost to leaks.) Are you/OFWAT sure Thames Water are up to the job?</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4315	<p>my concerns have not been addressed:</p> <p>- The protruding structure/platform as viewed from the river. How it will look not only from the Ham side where there has been some suggestion of landscaping but more importantly from the river. I agree with green solutions but we have some of the ugliest buildings appearing on our river banks housing water source heat pumps. Whilst I agree with the science I cannot comprehend that we allow developers to build eyesore structures to house them. This is one of the most unspoilt stretches of river bank in London and we should not take a decision to spoil it lightly. City dwellers need places to escape to for their mental health and wellbeing too. In summary I believe the structures you build to release and</p>	<ol style="list-style-type: none"> 1. The proposed new structures located at the river bank will be designed to ensure they are as least imposing and an eyesore as possible whilst still having to comply with and meet their required functions and regulatory criteria. The proposed new outfall will be below water level at the bank side and therefore not visible. The new intake will need to confirm to the particular regulations associated with eel and fish protection, whilst also maintaining the required flows for the scheme. Health, safety and wellbeing are TW top priorities and therefore there will need to be design elements incorporated to discourage misuse and maintain the safety of the river users. 2. Regarding water quality chemicals and the potential effects on river 	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water</p>



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	<p>extract water should have not only an engineering input but also a designer/architectural input taking into account all aspects especially the river. You only get the chance to get this right once and it may impact future similar schemes. I would like these structures to be as close in proximity to existing infrastructure as possible so as not to spoil a metre more of the recreational area than we need to! The proposed section is one of the busiest sections of the river for watersports, bathers, fishermen and schoolchildren. It should also be safe for diving and jumping into the river. Schoolchildren currently jump or dive off Teddington footbridge into the river and from trees along that stretch of the riverbank. Your platform I am sure will be a new attraction for this activity.</p> <p>- Biodiversity. I have read your plan for grills over the extraction points to protect from extracting fish but I have concerns about further down their food chain. Also, the temperature and chemical content of the water being reintroduced and its impact on the food chain. We have killed our river once before with dire consequences! Our local school children check the water quality in the Thames at Teddington weekly as part of their environmental science curriculum. I hope they will find as you have predicted no impact or improved water quality.</p> <p>- Noise pollution - pumps. I cannot believe that all this investment would be put in place for a system that would only be operated once every two years. It is therefore my summation that we need to be looking at this project also as a noise polluter. I think this installation needs to be so close to the weir that the weir is able to drown out any noise from the pumps. Noise travels readily across water & suffers little attenuation over distance. I would also like to see some controls put in place over the hours and days when the pumps could be utilised. Along similar lines to those already in place for construction workers.</p> <p>- Smell. Lastly and this is a purely personal concern but I am terrified of the smell.</p>	<p>biodiversity. We note that planned discharges, like this scheme, are not being considered by government regulators as "normal" sewage works discharges. They are being required not only to demonstrate that with designed-in advanced treatment that they will not deteriorate river water quality, but also that they will not jeopardise the river from achieving its target (good) water quality. This is for all chemicals with environmental quality standards to protected wildlife - please see the WFD Directions [https://www.legislation.gov.uk/ukxi/2015/1623/pdfs/ukxi0d_20151623_en_0.pdf] and the other operational chemicals included in permitting [https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit]. As such the scheme would not reduce water quality and therefore maintain the aquatic biodiversity. In addition TW are committed to achieving 10% biodiversity net gain on all of their development schemes, including this one, and we will be working closely to establish suitable locations to enhance and maintain biodiversity across the scheme.</p> <p>3. Regarding the potential impacts associated with noise generated by pumps and other equipment in operation. We are yet to complete a full environmental impact assessment including that of the operational effects. The dataset is still being captured through a baseline environmental survey regime which includes a noise monitoring programme. As the scheme progresses, we will continue to follow the regulatory process for all necessary assessments and will share the initial findings through scheme engagement and consultation later in 2023. These assessments will also be incorporated into our design and operation parameters to ensure appropriate control and mitigation measures are implemented where necessary.</p> <p>4. The proposed treated effluent from the new tertiary treatment plant facility will not have a strong odour. As the outfall and discharge will be below the water level there will be no noticeable odour at this location.</p>	<p>Resource Management Plan while further work is undertaken.</p>
4384	<p>the proposed reservoir is not needed (population and water shortage exaggeration).</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience.</p>	<p>We have provided information in response to your comments,</p>



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		<p>All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	<p>there are no changes as a result of your representation.</p>
4384	<p>Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.	
4384	<p>I wish to object to the Thames Water Planned reservoir for the following reasons:</p> <p>Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p> <p>Transparency: the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p> <p>Please do not destroy our local area with this monster plan.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse</p>	



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		<p>impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ 	



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		<p>- 121 earth embankment dams with a crest length of at least 10km</p> <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	
4385	the proposed reservoir is not needed (population and water shortage exaggeration).	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	
4385	<p>Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4385	<p>I wish to object to the Thames Water Planned Reservoir for the following reasons: Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity. Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now! Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage? Risk: flooding has not been assessed, nor has the risk of catastrophic</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>inundation/dam breach. Transparency: the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level</p>	



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		<p>appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed</p>	



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		<p>SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of</p>	



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		DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.	
4386	the proposed Steventon reservoir is not needed: the population and water shortage figures are exaggerated.	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	We have provided information in response to your comments, there are no changes as a result of your representation.
4386	the details of the plan and its full costing are unclear. There is need carefully to compare the costs of options.	Our draft plan includes detailed information on the foundation work to develop the plan and detailed information on the assessments including cost and environmental data on the options, this is available in the data tables. We are committed to work openly and transparently as we develop the long term plan for water supply.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
4386	<p>I object to the Thames Water Plan for the following reasons: the construction of the reservoir will cause considerable environmental damage, increase Thames Water's carbon footprint, lead to loss of ecological diversity and loss of agricultural land – just when we should be trying to be more self-sufficient in food production as a country. There are better solutions: water transfers, recycling and desalination these are</p>	The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.	We have provided information in response to your comments, there are no changes as a result of your representation.



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	<p>drought resilient and cost effective. The Severn Thames Transfer is a much better solution</p> <p>I seriously doubt that Thames Water can competently build and maintain such a structure, given its long record of leaks and sewage outflows</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation or dam breach</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	



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		<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother</p>	



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		<p>and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and</p>	



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		<p>inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	
4387	<p>the proposed reservoir is not needed (population and water shortage exaggeration).</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements. Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075. Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan. Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios. Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4387	<p>the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4387	<p>Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water</p>	<p>We have provided information in response to your comments,</p>



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		<p>resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>there are no changes to the plan as a result of your representation.</p>
4388	<p>the proposed reservoir is not needed (population and water shortage exaggeration).</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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4388	<p>I wish to object to the Thames Water Planned Reservoir for the following reasons: Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity. Better Solutions: water transfers, recycling and desalination these are drought</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p>	<p>summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	



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		<p>reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	
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4389	<p>the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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4389	<p>I wish to object to the Thames Water Plan for the following reasons: Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity. Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now! Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage? Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment</p>	



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		<p>(EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most</p>	



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		<p>embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	



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4435	Stop the discharges of Russia, which into the water lies us stop polluting the wall twice, stop respending money to clear The Waterboys and increasing your scale of clearing the lakes.	Unfortunately we do not understand the comment provided in the representation. We have provided responses to comments on sewage discharges if this is relevant and of interest.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
4435	Increase your lip targets from that trivial 10% to at least 25% scale, your water leaks Into three different scales, extreme, medium and slow work on the extremes first only mediums and slow or divide the teams into three and get them to work their way through the list does increasing your response time and your positivity to the leaks.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4435	<p>build a desalination plant with process saltwater into freshwater because we're an island we can sign for Walton in seriously stepped out.</p>	<p>Thank you for your response. We have looked at a wide range of solutions to reduce the shortfall between the amount of water we have and the amount we need, including reducing demand, creating new sources of water and improving catchment areas. Working with Water Resources South East (WRSE), an alliance of the six water companies across the South East, we've been exploring new ways to increase water supply, including desalination plants, water recycling systems, new reservoirs, and national and regional transfers of water. We've assessed every option against a range of criteria, including cost, water output, the time to deliver the scheme, potential impact on the environment, carbon footprint, and futureproofing. Possible desalination plants have been identified at Beckton and Crossness. In 'High' environmental destination scenarios, by 2050, there is a significant need for water in our Swindon and Oxfordshire (SWOX), Kennet Valley and Slough,</p>	<p>No changes requested.</p>



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		<p>Wycombe and Aylesbury (SWA) WRZs, as well as a need for an import into Southern Water’s Western Area from the Thames catchment. This means that water recycling or desalination options in London alone will not meet regional resource needs, and so the delivery of the STT or SESRO will be required, with both potentially being needed. Under the adaptive plan Beckton desalination plant (150 MI/d) is selected to be delivered in 2050 under Pathway 1. Further information on the selected options can be found in Section 11 of the Plan.</p>	
4436	<p>the proposed reservoir is not needed (population and water shortage exaggeration).</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4436	<p>the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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4436	<p>Financial and Commercial facts: The Thames Valley customers pay. Thames Water’s shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we’re working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4436	<p>We wish to object to the Thames Water Planned Reservoir for the following reasons:</p> <p>Environment: it will cause massive environmental destruction and damage, in construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination -these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it bearing in mind their dreadful record with leaks/sewage?</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment</p>	



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		<p>(EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most</p>	



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		<p>embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	



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4440	Climate change is wreaking havoc across the world and needs to be at the top of everyone’s agenda, not pushed to the side for financial gain, which is the cause of so much devastation.	We agree that the impacts of climate change need to be considered in depth in our water resources planning. Our water resources planning is not conducted in order to generate financial gain.	No changes - our plan considers climate change impacts using methods which are appropriate
4440	I don’t claim to be Degreelevel educated and believe it is unacceptable to find that I need to be in order to reply to the consultation documentation for Thames Water... Though a degree is not an explicit requirement to oppose the proposal, the process is so convoluted it may as well be. For most ordinary citizens it would be far too time consuming to learn how to respond critically to the heavilyloaded questions posed. -This leads me to see this as a method to exclude ordinary people from having a voice that will be heard; from having any voice at all. -The document “Keeping water flowing for the future” is nothing more than a PR ploy, with each question posed beginning with a slogan praising the proposal or Thames Water more broadly, e.g.: “1. We’ve chosen to aim for the highest level of environmental improvements; 2. Our plan... is above the government’s national target; 4. A new reservoir is an integral part of our best value plan for the South East.”	Thank you for taking time to participate in the public consultation and we note your feedback. We produced the non-technical summary to provide a clear overview of the draft WRMP and enable all interested parties to participate, and in this document we signposted the detailed technical documents if readers wanted more detailed information. We tried to ensure the consultation questions focused on aspects of the draft WRMP where there was opportunity for change and to present these clearly.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
4440	<p>It strikes me as a gross mismanagement of funds to press ahead with this. I dread to think of how much money has been wasted on the promotion of this proposal.</p> <p>Less people in offices trying to justify their wellpaid positions and more handson workers doing what really needs to be done, would be a far more efficient way to use the money we pay to Thames Water. -The very fact that our bills will rise so much more to pay for it would just add insult to a gross injustice.</p> <p>Our precious Water Utility should never have been sold off by the Thatcher Government. -This is a prime example of corporate greed over the needs of the environment and the failure of the agencies created to monitor exactly what is happening right now. -They are in effect nothing more than toothless tigers who should be serving the needs of the people who would not choose to pay extortionate amounts of money to executives who are not held to account for their actions.</p>	<p>We note your dissatisfaction with the privatisation of the water industry and the performance of Thames Water. In respect of the draft Water Resources Management Plan (WRMP), we have a statutory duty to prepare a WRMP to ensure we can continue to provide a secure and sustainable water supply. We engaged with regulators, stakeholders and our customers throughout the development of the draft plan and have ensured the plan complies with legal requirements and the regulatory guidelines. We appreciate that some consultees do not like aspects of our draft plan but we do need to progress measures to ensure we can continue to provide a secure water supply for the next 50 years. We rely on a secure water supply for everything we do and if we do not take decisions on our future water supply the impacts on our economy, society and the environment will be huge.</p> <p>The issue over ownership of UK water companies is fundamentally a matter for government. Our priority is ensuring the industry receives the necessary investment for customers and the environment. A concern would be, given the current pressure on the public finances and wider government priorities, whether sufficient money would be invested under a nationalised system.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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4440	they should be dealing with leaks, poor waste water practice with sewage and updating the aging water supply system.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p>	
4440	<p>I write to you because I am deeply opposed to the Thames Water proposal to build a reservoir southwest of Abingdon. I am in full support of the Group Against Reservoir Development (GARD) alternative, which is far less damaging to the environment. - . -The development of this reservoir will produce years' worth of pollution, and absolutely devastate the local environment. I am concerned to learn the proposal is to build such a geographical monstrosity; four square miles is obscene, so big it would be seen from space. - As it has been refused twice before I don't understand why they have submitted</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>another proposal. -</p> <p>This point is possibly the most pressing: the potential devastation caused should the walls be breached, either through accident, natural disaster, or as an act of terrorism. -This is not a stupid question, it's a valid point that must be on the minds of those who live under the shadow of this proposal, and for those who would have to suffer the years of air and noise pollution during construction. -It would be a risk that didn't need to happen.</p> <p>I finish with this quote from the most recent Oxford City Council Members Update report by Mish Tuller: "Proposal for giant reservoir faces continued opposition Renewed efforts by water companies to move forward with proposals for a giant reservoir near Abingdon are again facing opposition in Oxfordshire. The Water Resources South East (WRSE) plan includes proposals for a reservoir located between Abingdon, East Hanney, Steventon and Marcham, which would hold up to 100 million cubic metres of water – known as the South East Strategic Reservoir Option (SESRO) – as well as other options for securing future water supply. 9 In the county council's draft response, the £1.24 billion reservoir is described as "a destructive scheme, both environmentally and in its impacts on local people", with billpayers effectively being asked to "sign a blank cheque", with no clear costbenefit analysis or justification." This reservoir is unnecessary, there is an alternative and I truly believe that it must not be built.</p>	<p>ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse</p>	



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		<p>impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ 	



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		<p>- 121 earth embankment dams with a crest length of at least 10km</p> <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>We have undertaken an initial assessment of security risks as part of our work towards RAPID Gate 2, in order to ensure that the indicative master plan we developed would be in accordance with Thames water asste safety and security standards. Table 4.3 in our Gate 2 submission confirms that "There is a need to ensure the constructed infrastructure is robust and secure. In keeping with other reservoir sites, access to vulnerable assets will be tightly controlled. Access points, namely at the pumping station and riverside shaft, shall be tightly controlled as per all other Thames Water / Affinity Water infrastructure. The emergency drawdown siphons would be almost entirely buried, with the stilling chambers made secure by local access barriers / fencing. Thames Water currently allows safe public pedestrian access at Farmoor Reservoir and the Walthamstow wetlands site and similar arrangements are envisaged for SESRO. However, vehicular access to the dam crest at SESRO shall be controlled to manage the risk of damage." We will continue to develop the design of the scheme to reflect all relevant and required safety and security issues, as we progress through the next stages of scheme development.</p>	
4441	We fully recognise that with a growing population, the future UK climate changes projected by the Meteorological Office (UKCP 2018) and the increasing risk of drought, water companies must plan to conserve and provide adequate water supplies for their communities in the years ahead.	Thank you for your comments, which are welcomed.	No changes - none requested
4441	However, we particularly stress our view that these difficult objectives must be achieved without damage to either the physical or biological environment. Indeed, many of them should provide an opportunity to enhance biodiversity (as required of developments in the new Environment Act) and the beauty of our countryside.	Thank you for your response	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.



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4441	<p>Discharge of raw sewage into the River Thames In Draft WRMP24 – Section 2: Environment, November 2022, Thames Water state: We are part of our environment</p> <p>1. 2.1 Doing the right thing for society and the environment is the responsibility of everyone at Thames Water, our partners and our wider supply chain. We rely on a healthy natural environment to provide our services, and everything we do supports our purpose -to deliver life’s essential service, so our customers, communities and the environment can thrive.</p> <p>2. 2.2 What we do, and how we do it, can have a positive and lasting impact on society and the natural environment. Looking after, and enhancing, the environment is a crucial part of our longterm strategy https://thameswrmp.co.uk/assets/images/documents/technicalreport/2Environment.pdf</p> <ul style="list-style-type: none"> • The Company’s frequent discharge of raw sewage into the River Thames appears to be completely contrary to this strategy statement. <p>3.1 “Storm overflows” discharge raw sewage into rivers when heavy or prolonged rainfall results in excessive rainwater mixing in with foul sewer water and exceeding the storage/treatment capacity of sewer works. Discharges to rivers are regulated by the Environment Agency(EA) to avoid raw sewage backing up into home toilets and drains when the sewers are overwhelmed. The last such discharge at Mogden SW ran for 10 h on Sunday 8th January 2023 (https://richmond.nub.news/news/localnews/sewagedumpedinthamesthameswaterunderfire165950) and the one before that in November 2022. Sometimes discharges exceed EA permitted levels, e.g., two billion litres of water containing raw sewage was discharged from Mogden in 48h into the River Thames in October 2020. (https://twickenham.nub.news/news/localnews/environmentwatchdogslaunchinvestigationintomogdenriversewagescandal). Our view is that such incidents need to be avoided at all costs, so storm storage tank capacity needs to be increased, or other measures taken to avoid tanks being overwhelmed during heavy rain. This is especially important in these times of climate change when heavy storms may be more frequent.</p>	<p>The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p> <p>At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>3.2 Avoiding storm discharges at Mogden SW. On a visit to Mogden SW(02/03/23) TW told us that it does not plan to build any further storm water storage tanks as there is no further space available on this site (2nd February 2023). Instead, they were “considering” deepening the existing tanks to increase storm water storage capacity. We urge TW to follow this course of action. The cost will no doubt be great, but it is totally unacceptable in 2023 for untreated sewage to be discharged frequently into the River Thames.</p> <p>3.3 Other measures could be taken to reduce the possibility of stormwater discharges from sewerage works in future although they are beyond Thames Water’s immediate control. However, we urge them to be more prominent in campaigning and lobbying ministers and MP’s, local authorities, and the public, to make them happen. Such measures include:</p> <ul style="list-style-type: none"> • Passing legislation to ensure that all new developments include building new separate rainwater and foul water sewers. Old sewers, particularly in London, mix rainwater and foul sewage, leading to the current “stormwater overflows” into rivers in periods of heavy rainfall. • Develop long term plans for existing sewers to separate rainwater and foul sewage. • Ensure that no further concreting or bricking over occurs to accommodate car parking in front gardens, preventing natural drainage of rainwater into the earth. <p>3.4 Apart from the obvious implications for adverse effects on human health and river ecology, every time raw sewage discharges occur there is a massive loss of the public’s confidence in Thames Water management, making it all the more difficult for the company to convince them that plans for managing future water resources are appropriate and supportable. Public interest in the scale and frequency of discharge of untreated sewage into rivers (sometimes at times when heavy rainfall is not a factor!) is likely to increase with Thames Water’s recent introduction of a real time interactive map showing discharges in its area (https://www.thameswater.co.uk/aboutus/performance/riverhealth) which we commend. Massive action is required now to stop further raw sewage leaks.</p> <p>* Rapidly progress plans to deepen and/or increase storage tanks for foul</p>		



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	<p>sewage and rainwater at sewage works to prevent discharges of raw sewage into rivers in future (para 3,1). Public health concerns and recreational use of rivers (e.g., paddle boarding) demands this. Lobby strongly for other measures which will reduce storm discharges (para 3.3).</p>		
4441	<p>it requires the wise use of water by consumers, and the conservation of water resources by companies by fixing leaks in the delivery system.</p> <p>Thames Water (TW) supplies 2.6 billion litres of water everyday but 24% of that is lost through leakage (https://www.thameswater.co.uk/aboutus/performance/leakageperformance). To put that in context, that is about 224 million litres (MI) per day, three times the daily volume TW proposes to abstract from the River Thames at Teddington in times of drought, replacing it with cleanedup water from Mogden Sewage works. We accept that climatic conditions (freezing temperatures and soil changes during droughts) can cause unavoidable leaks and that some leaks are from customer’s pipes rather than Company ones. What is unacceptable is (i) the time that it takes for leaks to be repaired and (ii) the company’s proposed time frame for reducing them. Thames Water says that it will reduce total leakage by 16% by 2030 and by 50% by 2050. In our view these targets are far too low , especially when TW are planning massively expensive developments to maintain an adequate future supply of water to customers during the same time period (Water Resources Management Plan 2024). Repair of leaks must be a top priority with more ambitious targets set. Apart from obvious waste of a precious resource, seeing water leaking away in our streets for week after week saps public confidence in Thames Water’s management.</p> <p>* Please make repair of leaks a top priority and set more ambitious targets for achieving it(para 2.1). You can only repair the leaks you know about so we propose that you have an ongoing prominent public education programme to encourage people to report leaks to you, perhaps accompanied by a message that the reported leak will be attended to within a stated period of time.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>* Explain why it is not possible to transfer the cleaned up effluent from Mogden SW directly to the Lee Valley, as proposed for the Beckton scheme, instead of using it to top up the Thames after abstracting water from the River to transfer to Lee Valley (para 4.4). Direct transfer would be more environmentally friendly and, possibly, less costly.</p> <p>* Invasive nonnative species (INNS) are already present in the freshwater river above Teddington lock where cleaned up sewer water from Mogden SW will be added to the Thames to compensate for the 75mL/day river water abstracted from it in times of “water stress”. The impact assessment report (Annex B2.5, para 7.0) acknowledges that this will modify the river temperature, composition, pH, etc and that each of these factors may stimulate the proliferation of INNS. Abstracting 100MI/day would increase this possibility. The report admits that there is a “knowledge gap” in what the impact of the changes might be(para 7.4). We recommend that much more research must be done in this area to fill in the knowledge gap to avoid any serious consequences for the ecology of the river due to unpredicted stimulation of the INNS already present. Unpredicted expansion of one or another INNS populations, due to manmade changes in the environment, has had catastrophic ecological consequences elsewhere, e.g., floating pennywort in stretches of the Thames (https://environmentagency.blog.gov.uk/2018/03/28/invasivespeciesweekmanaingainvasiononthethames/)</p>	<p>of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years’ performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We’re currently fixing more than 1,000 leaks per week across our network meaning that, on average we’re fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Teddington Direct River Abstraction (DRA) The Teddington DRA scheme, about which you have concerns, allows us to capture water resource from Mogden STW that currently flows out to sea in order to increase resilience to drought for our water supplies. This scheme enables us to provide greater resilience to drought earlier than would otherwise be the case.</p> <p>The scheme is flow neutral and at the reduced volume proposed, and does not cause deterioration to water quality and ecology. The treated wastewater effluent taken from Mogden Sewage Treatment Works, would go through an additional stage of treatment (tertiary) to ensure there is no deterioration to the water quality in the river. There are many existing abstraction and</p>	



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		discharge points between Egham and Teddington in operation that do not limit the amenity of those who use the river.	
4441	<p>We agree that to continue an adequate supply of water to communities in the future will require multiple actions including the building of new reservoirs, the transfer of water from areas of relative abundance to those of relative paucity.</p> <p>Specific Comments on the Teddington Direct River Abstraction (DRA) scheme:</p> <p>1. The scheme to transfer drinking water from the Thames in Teddington to the Lee Valley reservoirs in North London appears extraordinarily complex to us (https://thameswrmp.co.uk/assets/images/documents/non-technical-summary.pdf) compared to a scheme proposed recently for transfer of drinking water from Becton Sewage Works to these reservoirs.</p> <p>2. In the Teddington scheme, 75MI of water/day (or possibly 100MI/day) will be taken(abstracted) from the Thames for drinking water from a site just upstream of Teddington Weir. The abstracted water will be transferred to the Lee Valley via a new pipeline connection to an existing underground tunnel. Meanwhile an equivalent volume of cleaned-up sewage water will be taken after passage through treatment plants at Mogden SW and transported in a tunnel to the River Thames at a site 150 m downstream of the abstraction site. TW say that this will allow them to abstract this volume of drinking water from the river daily during times of “water stress” whilst making sure that enough water is left in it to protect fish and wildlife.</p> <p>3. However, in another recent (July 2021) Thames Water project involving reuse of cleaned-up foul sewer water at Beckton Sewage works, the purified water would be transferred directly from the works to the Lee Valley, i.e. “Beckton Effluent Reuse scheme: Final effluent from the Beckton Sewage Treatment Works (STW) in East London would be treated at a new AWRP within the STW site boundary. The treated water would then be pumped to a proposed discharge location on the River Lee Diversion above the inlet for King George V Reservoir (KGV) to supplement the raw water supply to the Lee Valley reservoirs (denoted as the “Conveyancing Sub- options”. Scheme capacity: up to 300 MI/d in 50, 100 or 150 MI/d phases”</p> <p>https://www.thameswater.co.uk/media-library/home/about-</p>	<p>Thank you for your comments.</p> <p>The Teddington DRA scheme has been selected as a best value option over the Beckton scheme through the Water Resource South East regional model. Best value has been determined through the analysis and modelling of cost, resilience, environmental and customer preference metrics. It is not only a cost based assessment. Full details of the methodology used to determine best value can be found on the WRSE website at the following link - https://www.wrse.org.uk/media/3oah3rep/wrse-best-value-planning-method-statement-december-2022.pdf.</p> <p>With regards to transferring treated effluent directly from Mogden STW to the TLT. The Thames Lee Tunnel (TLT) is currently used for the transfer of "raw water" for treatment into "potable" water at several Water Treatment Works (WTW) in NE London. While it is technically possible to put highly treated final effluent directly in to the TLT, the proposed Teddington DRA design takes a precautionary approach in line with current best practice. Any treated effluent that would be discharged into the TLT would be re-abstracted via Lockwood reservoir for drinking water treatment so would be considered as planned direct potable reuse (DPR). The water utilised for drinking water production falls under a different set of legislation than that covering environmental discharges (The Water Supply (Water Quality) Regulations 2016 (England)). Drinking water is self-evidently treated to a far higher standard than that required by the environmental legislation covering discharges to rivers. Drinking water supply involves a risk assessment approach, documented in a Drinking Water Safety Plan (DWSP). By definition, the risk assessment methodology adopts a precautionary approach to the drinking water treatment process and assessment of new water sources. To directly transfer to the TLT we would be required to treat the final effluent to an extremely high standard, using a reverse osmosis filtration plant, which would not fit within the space at Mogden and require an</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>us/regulation/regional-waterresources/water-recycling-schemes-in-london/gate-one-submission-london-reuse.pdf</p> <p>4. Why is it not possible to transfer the cleaned-up effluent from Mogden SW directly to the Lee Valley, as proposed for the Beckton scheme, instead of using it to top up the Thames after abstracting water from the River to transfer to Lee Valley? Surely if direct transfer to Lee Valley from one sewage works (Beckton) is good enough to provide drinking water for the Lee reservoirs it should be good enough for another(Mogden) to do so. We do not have the technical expertise to answer that question, but we think that Thames Water should do so for the public. A direct transfer from Mogden SW would avoid potential environmental problems of replacing Thames water with purified Mogden SW effluent.</p> <p>Environmental concerns relating to the Teddington DRA: TW have published in their “Gate 2 submissions” annexes with assessments of the environmental impacts of their Management Plan proposals. The assessments are from modelling experiments.</p> <p>- nnex B2.3: Fish Assessment Report https://www.thameswater.co.uk/media-library/home/aboutus/regulation/regional-water-resources/water-recycling-schemes-in-london/gate-2-reports/Annex-B23--Fish-Assessment-report.pdf</p> <p>River Temperature . The annex concludes that the introduction of 75MI/d newly-treated effluent from Mogden SW will have only a small effect on the water temperature of the freshwater Thames which is unlikely to affect fish biology. “Within the freshwater River Thames, it is predicted that a maximum temperature change of 0.98oC may occur, achieving a maximum modelled temperature of 19.73oC” (Annex B2.3 p73).</p> <p>However, an important confounding factor does not appear to have been considered in the assessment – the ongoing effect of climate change.</p> <p>1- Recent scientific evidence shows that the temperature of rivers in a variety of environments will increase as a result of climate change (https://doi.org/10.1038/s41598-022-12996-7). The warmer water becomes,</p>	<p>offsite location, of which there are none within the required area.</p> <p>With regards to the Beckton Water Recycling scheme. It is continuing to be assessed but its programmed operation date is beyond 2030s, thus its assessment is progressed on a slightly slower programme that the Teddington DRA scheme.</p> <p>The timing of the schemes is ‘set’ by the WRSE regional modelling, which looks at the best mix of resources to provide the required amount of water across the South East. Updates to the regional modelling have changed the programmes for the two schemes.</p> <p>The Beckton Water Recycling scheme design and assessment continues and will be reported in May 2024 on current programme.</p>	



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	<p>the less dissolved oxygen it contains. Every 10C increase in river water temperature reduces dissolved oxygen saturation level by 2.3%. Lower dissolved oxygen levels have an adverse effect on many aspects of fish physiology including growth, swimming, disease susceptibility, respiration, metabolism, and finally survival (https://doi.org/10.22271/fish.2022.v10.i4b.2693).</p> <p>2- Adding effluent to the river from Mogden SW may only have a small effect on the fish population at the moment but, in future years with further warming of the river due to climate change, the additional temperature change from the Mogden discharge may prove to be a tipping point for more serious effects on fish and other aquatic species in the area. With this in mind we propose that further modelling should be done taking climate change into account.</p> <p>- Annex B2.5 INNS (Invasive Non-native Species) Assessment Report https://www.thameswater.co.uk/media-library/home/about-us/regulation/regional-waterresources/water-recycling-schemes-in-london/gate-2-reports/Annex-B25--INNSAssessment-Report.pdf The Introduction to Annex B2.5 records that "Invasive non-native species (INNS) of flora and fauna are considered the second biggest threat after habitat loss and destruction to biodiversity worldwide and has been identified as one of the most serious and rapidly growing threats to biodiversity, ecosystem services and food, health and livelihood security¹. The annual cost of INNS to Great Britain's economy was estimated in 2015 to be £1.7billion per year, of which around £5 million was attributed to water industry management of INNS²".</p> <p>1) It is noteworthy that the Annex reports that 30 INNS were recorded as already present in the river upstream of Teddington lock during baseline surveys. The most frequently recorded species was Caspian Mud Shrimp, followed by Demon shrimp and Ponto-Caspian Polychaete Worm (<i>Hypania invalida</i>).</p> <p>2) Assessing the impact of the Teddington DRA on these INNS, the report states:-</p> <ul style="list-style-type: none"> • "Reductions in flow in the 250m section between the intake and outfall on the River Thames, may increase the potential for INNS propagule settlement particularly for species which possess a planktonic life stage such as the 		



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	<p>dressenid mussels. A reduced flow may also aid juvenile migration of Chinese mitten crabs within the 250m sections”(p44).</p> <ul style="list-style-type: none"> • “There is a possibility that temperature increases may potentially improve the fitness of some individual INNS currently present resulting in a competitive advantage over native and other nonnative species” (p45). • Changes of pH to more alkaline conditions, with a maximum pH of 8.8 within the freshwater River Thames may result in the freshwater River Thames becoming more preferable for INNS such as dressenid mussels, and aquatic plants such as Elodea nuttallii. Increases are not major, but a move to more preferential conditions may result in increased populations of these species(p.46) <p>3) Collectively these impact assessments are of concern. Some of the INNS could have a serious impact on the river ecology, displacing native species if their proliferation should get out of control. Some may even have wider environmental effects. For example, polychaete worms (<i>Hypania invalida</i>) feed exclusively on diatoms, the microalgae which are present in rivers and oceans (https://doi.org/10.1016/j.gecco.2021.e01623) and which are responsible for 20% of global carbon fixation (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7464044/).</p> <p>4) Annex B2.5 admits that:- “The ability to accurately predict the impact to INNS resulting from changes to the physical environment is limited due to lack of relevant literature and remains a knowledge gap”. This clearly indicates that further research by TW or their Consultants needs to be carried out to provide reassurance that schemes like the Teddington DRA scheme will not result in ecological disaster.</p>		
4447	<p>Excessive Consumption. We encourage Thames Water to target less water per person per day. This should come down from the proposed 123 litres per day to the government’s national target of 110 litres per day or even less. This can be done in conjunction with new tariffs, such as charging more per litre for those who use excessive water – with safeguards via social tariffs for those who need more (eg some disabled)</p>	<p>Within our revised draft WRMP we are looking to further improve reductions in demand from household customers so that the Government target of 110 l/p/d is achieved within our supply area.</p>	<p>Our preferred plan includes a PCC target of 110 l/h/d.</p>
4447	<p>Very High Emissions. On page 27 in Table 61 of the consultation document Detailed feasibility and concept Gate 2 document it shows very large whole life carbon for Mogden and Teddington line items for the extraction scheme. This is</p>	<p>Thank you for your detailed consideration of our documentation, which is clear from your response.</p>	<p>No changes as per our consideration</p>



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	<p>possibly in excess of 1 Million tonnes of Carbon Dioxide equivalent. For just one infrastructure scheme, this is excessive when we are trying to reduce emissions to zero as soon as possible to limit world temperature rises to 1.5C in the climate emergency. If at all possible we want to avoid building schemes of this type if there are alternatives such as reducing consumption and not wasting water via leaks.</p>	<p>In our water resources planning we are required to demonstrate how we will balance supply and demand. We are set a framework and must operate within that framework; in this vein, it is not within our gift to assess whether emissions associated with the construction of a new water resources scheme are comparable to the benefits of drought resilience.</p> <p>Our plan is built on a foundation of demand reduction, through both leakage reduction and helping our customers use less, enabled by smart meter installation. Our planning shows that demand reduction on its own will not be enough, as we can only take so much action to reduce usage and leakage.</p>	
4447	<p>Water quality. We are concerned about the impacts on water quality. The water quality of the Thames is already not 'Good' status. It is in the Thames River Basin Management Plan to achieve Good status and this is also in the London Plan (page 358). But there is no good plan to achieve this. The stretch of the river from Egham to Teddington currently has 'Poor' ecological status. See Environment Agency map. Such schemes as the Teddington extraction should not be considered while the water quality is not 'Good'. 'Good' status should be achieved first – and then a proper assessment of the impacts of the extraction scheme can be made against good water quality rather than poor water quality. Otherwise we are risking further deterioration from an already 'Poor' status. Such deterioration is not acceptable according to the Environment Agency environmental objectives.</p> <p>Independent Observations. We have read the environmental impact documentation. We are concerned, given Thames Water's current reputation, that we cannot rely on Thames Water marking their own homework as regards water quality. If the scheme does go ahead, we want to ensure that conditions are put in place for truly independent assessments of water quality impacts which involve local organizations. If the water quality impacts of any scheme do not result in water quality having 'Good' status, the scheme should not be used until the water quality has been improved to good status. Recent fines on Thames Water do not appear to have achieved the target of good water quality.</p> <p>Footpath and biodiversity disruption. The extraction plant is a very large</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. Following the assessments so far, we have reduced the scheme size to ensure we protect the environment. We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage and as such the precise</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>concrete structure. We are concerned that this plant will have considerable lasting impacts on a much loved seminatural stretch of the Thames between Kingston and Teddington Lock. Thames Water staff informed me that the structure will block the path of the current footpath. It is also anticipated that during the construction phase there will be considerable biodiversity loss as the area will be turned into a construction site for several years. We oppose these impacts as the whole scheme is unnecessary.</p> <p>Sewage spills from Mogden. We are concerned that the tertiary water treatment plant will use additional space within the Mogden site. On a visit to the Mogden site in April 2022, we were informed that options were limited for reducing the dumping of partially treated sewage into the River Thames off Isleworth, due to the lack of space within the Mogden site. It now seems that Thames Water are proposing to use limited space in the Mogden site for this extraction scheme while continuing to dump sewage into the Thames. We encourage Thames Water to solve the current problems within the Mogden site by limiting sewage dumps into the river Thames rather than use valuable space for the Teddington extraction scheme.</p>	<p>locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time. We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will have not significant negatively impact on the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points. We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p> <p>The exact quality of the recycled water is not yet fully determined as trials are being prepared to simulate the new treatment plants effectiveness of treating the Mogden STW’s final effluent, and specifically in relation to the list of chemicals identified in the Gate 2 report as being a risk. This work is being undertaken in consultation with the Environment Agency who will need to be satisfied as to the quality of the recycled water to then provide Thames Water with a discharge permit. The EA are fully aware of the need for the scheme to comply with the Water Framework Directive (WFD) and any permit they issue will reflect this. Schemes such as Teddington DRA have the potential to improve the WQ of the river in relation to specific contaminants, as has been demonstrated by modelling work. The scheme will not receive a discharge from the Environment Agency if it will deteriorate the quality of the</p>	



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		<p>River Thames. The discharge quality will be better than the existing water in the River Thames and the scheme overall will need to provide biodiversity net gain.</p> <p>Teddington DRA is a drought resilience scheme. It must be remembered that in times of drought with river will be under stress, yet abstractions must continue to maintain London’s water supply. Schemes such as Teddington DRA can be part of the solution to limit river and environmental stress and reduce the need for future drought orders.</p> <p>The proposed new structures located at the riverbank will be designed to ensure they are as least imposing and an eyesore as possible whilst still having to comply with and meet their required functions and regulatory criteria. The proposed new outfall will be below water level at the bank side and therefore not visible. The new intake will need to confirm to the particular regulations associated with eel and fish protection, whilst also maintaining the required flows for the scheme. Health, safety and wellbeing are TW top priorities and therefore there will need to be design elements incorporated to discourage misuse and maintain the safety of the river users. The consultation and planning process will allow the public to comment and propose suggestions as how best to limit the visual and environmental impact and ensure good design practices are followed.</p> <p>During construction, the riverside path may need to be temporarily diverted, but river path access will be maintained in future, taking in to account all safety and security requirements such civil infrastructure requires.</p> <p>In addition, TW are committed to achieving 10% biodiversity net gain on all of their development schemes, including this one, and we will be working closely to establish suitable locations to enhance and maintain biodiversity across the scheme.</p> <p>We acknowledge that Mogden STW is one of our works that struggles to treat the required volumes of sewage under rainfall conditions. In order</p>	



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		<p>to deal with heavy rainfall at Mogden, we have eight storm tanks at the moment that currently hold about 40 Olympic-sized swimming pools of storm water contaminated with sewage. The new treatment plant at Mogden would not impact existing storm tank capacity. We are proposing modifications to increase its capacity. It is also worth noting that Thames Water has committed to invest £97million in Mogden STW to replace and upgrade critical assets, as part of a wider investment of £1 billion in Thames Water sewage treatment works. The entire programme is expected to be completed during 2027</p>	
4447	<p>oo many leaks. We encourage Thames Water to do much more to fix leaks. As in the graph below (from the display at the Twickenham consultation event on 3rd March) we want Thames Water to go for the “High Plus” scenario (brown line) that radically reduces water leakage to just over 400 MI/d by 2030. This may cost more and cause more disruption than new infrastructure but we consider it would be worth doing in the long run.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4447	<p>We have some points in response to this consultation. These relate to Mogden Sewage Treatment Works and the Teddington River Abstraction scheme.</p> <p>Unnecessary extraction . With more ambition on reducing consumption and fixing leaks some of the infrastructure projects, such as the Teddington River Abstraction scheme would be unnecessary. We request that you look into this.</p>	<p>Thank you for your response to the consultation.</p> <p>We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We'll need a combination of measures to address the shortfall.</p> <p>WRSE has considered over 2,000 options including water transfers, desalination, reusing treated wastewater, reservoirs and catchment schemes - all are viable, potential options which could form part of an overall plan for</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain</p>



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		<p>the South East.</p> <p>Our 'best value' plan considers environmental, social and economic needs while still balancing supply and demand for water. For example, in the WRSE regional plan, we considered not only cost but also the wider benefits the plan could provide to you and the environment. We covered everything from boosting biodiversity and offsetting carbon to increasing our resilience to a range of risks, including droughts. We've worked closely with customers and stakeholders to develop the best value objectives and criteria for this draft WRMP24.</p> <p>We are continuously tackling leakage on our network. Within the Thames Water network, Thames Water's networks have over 20,000 miles (about 32186.88 km) of water pipes supplying water to customers in London and over to the Cotswolds. We need to invest to reduce the amount of water that we lose through leaks, both from our pipes and also our customers' pipes. We have committed to halve the amount of water we lose through leaks by 2050, this is a challenging and ambitious target. Tackling leakage will not solve the water challenge we face on its own, we also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water. Much of our water network is under London and therefore very disruptive to the population and businesses if we were to dig up too much of it at once.</p> <p>In the draft WRMP24, we forecast that water use in our supply area would fall to 123 l/h/d by 2050. Updated guidance now sets a policy target of 110 l/h/d by 2050. Our revised draft plan reflects this target (and others set for non-household demand, leakage and distribution input per person) by including additional company and government-led demand management measures. We continue to engage with government and regulators on the 110 l/h/d target and how best to manage the security of supply, should this policy target not be achieved.</p> <p>The Severn to Thames Transfer (STT) was included in our draft WRMP from</p>	<p>one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p> <p>In the draft WRMP24, we forecast that water use in our supply area would fall to 123 l/h/d by 2050. Updated guidance now sets a policy target of 110 l/h/d by 2050. Our revised draft plan reflects this target (and others set for non-household demand, leakage and distribution input per person) by including additional company and government-led demand management measures. We continue to engage with government and regulators on the 110 l/h/d target and how best to manage the security of supply, should this policy target not be achieved.</p>



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		<p>2050, it is no longer required due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p>	
4456	<p>TW doesn't repair leaks quickly, skimp on maintenance and updating infrastructure, Pollutes the environment with raw sewage. Despite this the directors and shareholders still reap handsome dividends and salaries. God alone knows what havoc they would reap if allowed to undertake the reservoir project.</p>	<p>We note your dissatisfaction with our performance. Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works.</p> <p>With regards to leakage, we're investing significantly to tackle the amount of water that is lost from our water pipes. We remain committed to reducing total leakage by 20% by 2025, and in our draft plan we have committed to halve the amount of water we lose through leaks by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment.</p> <p>In respect of our future water supply, we face significant pressures from our changing climate and the need to protect our environment. We have been working with other water companies across the South East, and other water users, to plan our long term water supply and the purpose of the WRMP is to ensure we can continue to provide a secure and sustainable water supply to</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>our customers over the next 50 years, whilst protecting the environment. The consequences of not planning properly are huge for our economy, society and the environment. In developing and implementing the WRMP we follow a stringent regulatory process with active involvement of government and regulators who challenge us, and will hold us to account for our performance. The investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	
4456	<p>I wanted a water meter</p> <p>1) I was told my house wasn't suitable (not true)</p> <p>2) Couldn't locate exterior stopcock because it had been buried alive when pavement resurfaced. A second team located it..</p> <p>3) Water meter installed but blockage between exterior and interior stopcocks left me without water. I told the team but they said they weren't allowed to enter the house to rectify it, it had to be done by another subcontractor</p> <p>4) Sub contractor didn't turn up because someone at TW didn't send an email to OK it, so i had no water for over 24 hours during the heatwave. (I am 80)</p> <p>5) Finally, after threat of newspaper article , blockage removed (took 10 minutes).</p> <p>6) One of the lorries made a pothole in the road outside my house and I had to get the council to repair it.</p> <p>This was my experience of what should have been a very trivial task.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4457	<p>fix the leaks.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of</p>	<p>Our demand management and leakage reduction proposals have</p>



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		<p>Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next</p>	<p>been extended in our revised draft plan.</p>



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		<p>2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4457	We don't need or want this reservoir	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; 	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<ul style="list-style-type: none"> • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
4458	<p>Future demand for water has been exaggerated due to inflated projections it should be halved.</p> <p>Future demand for water over the next 50 years has been forecast using four identified pressures on water demand: population growth, climate change, environmental improvement and increasing our drought resilience. From this a “reported pathway” headline figure has been established in the WRSE plan, which is double a more realistic view.</p> <p>The chosen population projection is the third largest of the 21 reported, and a much smaller number, such as that projected by the Office for National Statistics 2018 should be used.</p>	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	Our preferred plan includes a PCC target of 110 l/h/d.
4458	The climate change requirement uses the highest emission scenario – following the recent climate talks this is unrealistic and a median scenario should be adopted.	Within our planning we have considered a wide range of climate change evidence. As described in Appendix U, we have undertaken extensive modelling based on scenarios other than RCP8.5 (we have considered RCP2.6, RCP4.5, RCP6.0 and RCP8.5) - the scenario initially considered RCP8.5 due to the importance of considering a coherent climate change	No changes as per our consideration



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		<p>scenario across the WRSE region. We have mapped the climate change impact pathways which we have adopted and have found that our 'high', 'medium' and 'low' scenarios represent approximately 75th, 50th, and 25th percentile trajectories respectively.</p> <p>While our preferred programme has adopted a pathway which follows a 'High' climate change trajectory, it is important to recognise that our plan is adaptive, and we will be able to adopt a different investment programme in the future should we find that climate change projections in the future are lower than those in our preferred programme pathway.</p>	
4458	<p>The restoration of our internationally unique chalk streams is vital and for this significant reduction in groundwater extraction is needed. Chalk Streams First and the DEFRA sponsored 'Catchment Based Strategy' should be supported, which recommends priority for streams where abstraction exceeds 10% of recharge -(A10%R). -Pollution (sewage and agricultural) is a bigger environmental factor which also needs to be addressed.</p>	<p>Thank you for your response. A significant driver in our WRMP24 is to improve the environment we are so heavily reliant on. In our draft and revised draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first.</p> <p>We have linked the timing of our environmental destination scenarios with the time taken to investigate, design infrastructure solutions and implement those solutions. Our consideration is that we should not apply a fractured approach to sustainability reductions where we accelerate sustainability reductions in certain locations, as this inhibits the ability to plan in a comprehensive manner to ascertain the optimum overall solution when considering new water resources and new infrastructure.</p> <p>The reductions included in our plan are based on the approach that should be taken in defining a regional environmental destination, which is set out by The National Framework for Water Resources and Water Resource Planning Guidelines. The guidance document, "Long term water resources environmental destination", states, "use the 2050 BAU scenario as the starting point to ensure you comply with current statutory and regulatory requirements in the future" and "use the enhanced scenario to identify where</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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		<p>it may be necessary to provide enhanced protection to buffer from predicted climate change impacts”. As such, our consideration is that adoption of the scenarios set out in the National Framework meets the requirements of guidance, and this is reflected in our plan.</p> <p>Regarding comments on pollution (sewage and agricultural), the WRMP sets out the investments required to ensure a resilient supply of water for the future. Our Drainage and Wastewater Management Plan (a separate plan) details the investment which will be required to meet requirements regarding sewage spill and pollution reduction.</p>	
4458	<p>Targets are unambitious for reduction in both water consumption and leakage.</p> <p>For all the scenarios in the WRSE plan over half the ‘solution’ is achieved through leakage reduction and demand management and for the ‘low’ scenario this constitutes 78%. The plan will reduce leakage by 50% by 2050 and reduce personal water use from 144 to 115 lt per person per day (but only 123 lt per day for Thames Water). Higher ambition is required.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly,</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will</p>	



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		<p>contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	
4458	<p>Given accepted demand uncertainty, new sources of water should give priority to schemes which are adaptable, scalable and minimise environmental impact . New reservoirs, like the SESRO (South East Strategic Reservoir Option ie the Abingdon Reservoir), DO NOT meet this criteria.</p> <p>It is acknowledged that many factors which will determine our future water need are uncertain and difficult to forecast. It is therefore vital that proposed new water sources are adaptable, scalable and have minimum environmental impact. New water sources include river transfers, new reservoirs, water recycling, and desalination.</p> <p>- The various river basin water transfer schemes should be supported. The Grand Union Canal transfer can provide very quickly water needed to reduce extraction along the Chilterns and thus allow the remediation of the Chiltern Chalk streams in the next few years. Similarly, the Severn-Thames transfer scheme is scalable, adaptable and causes minimal environmental damage. It could be operational by the early 2030s, thus providing water quickly for improved resilience and river improvements. Pumping across the Cotswolds has a carbon cost but in fact this goes away if the Government target of decarbonising the electrical grid by 2035 is achieved.</p> <p>- The various recycling schemes should also be supported. These are also scalable, adaptable and have low environmental impacts. The Teddington river abstraction (supported by the Mogdon recycling) should be implemented as soon as possible. This could be easily expanded in the future from the current plans for 67 MI/d to 100 MI/d, and even further if the water temperature issues could be resolved (water heat pumps to supply district heating along the pipeline is a rapidly developing technology and should be investigated).</p> <p>- Desalination plants along the south coast should not be completely rejected.</p>	<p>Thank you for your responses to the consultation and your comments, which are noted.</p> <p>The draft WRMP aims to address exactly the issue you raise, and assess each scheme on its merits.</p> <p>We are working in collaboration with other water companies and stakeholders to coordinate a regional response to the challenges. We are looking beyond our individual boundary and identifying ways to deliver the most benefit across the South East for the long term.</p> <p>A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. We have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We think this is the right thing to do.</p> <p>We don't know exactly what the future will bring, so our plan is adaptive. We'll monitor the future and adjust our plan accordingly but investing now will mean we can: cope with the changing climate; leave around 20% more water in the environment around us and support growth in our communities and our businesses.</p> <p>In developing the WRMP24 and wider plan for the South East, a fresh and objective look has been taken at the challenges facing the region and how best to solve them, looking beyond the boundaries of individual water companies to identify the options that will provide resilient supplies more efficiently and provide wider benefits.</p> <p>In terms of new infrastructure, water transfer from the River Severn, desalination plants and water recycling are viable potential options which</p>	<p>Thames Water's WRMP sets out the vision to address the predicted deficit in water across London and includes a number of different measures to generate new sources of water.</p>



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	<p>New technologies and the decarbonisation of the electricity grid may make these more cost effective options in the future. Again, they should be scalable and adaptable. A full, transparent and independent study of the environmental and greenhouse gas emission consequences should be undertaken.</p> <p>- The priority given to the SESRO/Abingdon reservoir is unjustifiable. This development would not be scalable or adaptable and has considerable environmental damages and risks. It is obvious that the environmental damage during the construction phase would be huge, not just on the 10 square kilometre site but in the surrounding area and access roads. Even beyond the construction phase any restoration of habitat (or even the creation of new habitat) will take decades (for example, for trees to grow and insect populations to recover). The environmental impact would be severe. If the SESRO project is to be progressed at any time in the future, a full, transparent and independent study of the environmental and greenhouse gas emission consequences must be undertaken.</p>	<p>could form part of an overall plan for the south east.</p> <p>Why build the reservoir first before the Severn Thames Transfer? Our work has shown that both options are needed, but a new reservoir is a better first option as it is:</p> <ul style="list-style-type: none"> • less expensive overall, with lower running costs; • is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>Out of the proposed Recycling schemes, Teddington DRA scheme has been selected by the regional WRSE plan as "best value" on a number of metrics, not just cost. This project is currently being developed with a proposed deliver in the early 2030s. The final size of the recycling schemes will be determined after consultation with all our stakeholders, notably the EA.</p> <p>We have considered further desalination options as part of our WRMP. They are not the preferred option under the current review as they do not represent best value when compared to the schemes we are currently proposing to develop. Desalination plants have a high initial capital costs and cost significantly more to operate and maintain than more standard treatment processes, and hence have a larger environmental impact and carbon footprint over their lifespan. We agree that desalination may form an</p>	



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		important part of a resilient and robust water supply option in the future, and remains in the adaptive pathway for that very reason.	
4459	strongly feel that resources and finances should be used instead to stop the leaks	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought. To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4459	I am totally opposed to the idea of a reservoir in the proposed location	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
4460	<p>Nowhere in all the documentation is there a comparison of costs between the scheme and repairs. I therefore suggest that no further time and money is spent on the scheme until the repairs option is properly gone into and presented. Let common sense play a part please.</p>	<p>We provide detailed information in the Data Tables accompanying the plan, where we present costs of options including demand reduction and leakage options on a comparable basis with supply side schemes. We take this information into account in our decision making . this is presented in detail in Section 10 of our draft plan.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4460	<p>A secondary objection is that Thames Water is one of the worst practitioners when it comes to pumping untreated sewage directly into the river. Will it never use the proposed new input pipe to pump raw sewage? Never, ever?</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>trust with local communities.</p> <p>Specifically in relation to the Teddington direct River Abstraction scheme, the scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged. There is no route for raw or untreated sewage to be discharged in the River Thames, upstream of Teddington Weir.</p>	
4460	<p>I more basically question why the whole scheme is even being suggested and, seemingly, planned when Thames Water is notorious for the amount of its water lost to leaks. The cost of repairing the leaks must be less or, at the most, not much more than the cost of the proposed scheme. Thames Water does not need planning permission nor this whole elaborate process to repair itself. And it can start tomorrow.</p> <p>So repairtheleaks figures please. And no more talk of these elaborate, expensive and harmful proposals until a proper comparison has been presented. It's difficult to understand why all this was even started when the solution to the more water problem is ready to hand.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Teddington Direct River Abstraction (DRA) The Teddington DRA scheme, about which you have concerns, allows us to capture water resource from Mogden STW that currently flows out to sea in order to increase resilience to drought for our water supplies. This scheme enables us to provide greater resilience to drought earlier than would otherwise be the case.</p> <p>The scheme is flow neutral and at the reduced volume proposed, and does not cause deterioration to water quality and ecology. The treated wastewater effluent taken from Mogden Sewage Treatment Works, would go through an additional stage of treatment (tertiary) to ensure there is no deterioration to the water quality in the river. There are many existing abstraction and discharge points between Egham and Teddington in operation that do not limit the amenity of those who use the river.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p>	



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		<p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4460	<p>I live at Broom Water which is a navigable inlet off the left bank of the Thames just upstream of Lensbury. One of the benefits of this address is that a boat can be kept afloat in this creek, Broom Water, at the bottom of the garden and taken directly to the river. I am therefore one of the thousands of people who, one way and another, enjoy using the river purely, as I would readily admit, for the pleasure it provides.</p> <p>I am therefore writing to object to the proposal to extract water from the Thames via a very visible new building opposite the entrance to Broom Water and to replace this extraction with “treated” water with an inlet sighted just below Teddington Lock.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. With regards navigation on the river, our modelling has shown that there would be no measurable change in water level in the freshwater section of the river at times when the Teddington DRA scheme would operate, while there may be a small reduction in flow between the abstraction and discharge locations, albeit without posing any serious</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>risk. For further information on the scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
4461	<p>we don't need the reservoir and it would be much better to get the amount of water we need water from the River Severn.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4461	<p>the population forecasts are wrong</p>	<p>The growth forecasts used were produced by either local authorities or the ONS. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the</p>	<p>Our preferred plan includes a PCC target of 110 l/h/d.</p>



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		horizon to 2075. We have used five different projections of growth across the south east in the production of our Water Resources Management Plan.	
4461	I don't trust Thames Water to be able to build and maintain a reservoir when they can't fix leaks in existing pipes	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p>	
4462	we don't need the reservoir anyway and it would be much better to get the amount of water we need from the River Severn	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		<p>emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4462	the population forecasts are wrong	<p>The growth forecasts used were produced by either local authorities or the ONS. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075. We have used five different projections of growth across the south east in the production of our Water Resources Management Plan.</p>	Our preferred plan includes a PCC target of 110 l/h/d.
4462	<p>given the amount of raw sewage you release into the rivers, how are you even qualified to talk about improving the environment?</p> <p>We don't need the reservoir and we object to you building it to increase your profits at our expense</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>We face significant pressures from our changing climate and the need to protect our environment and need to plan ahead to ensure a secure and sustainable water supply. The consequences of not planning properly are huge for our economy, society and the environment. In developing and implementing the WRMP we follow a stringent regulatory process with active involvement of government and regulators who challenge us, and will hold us to account for our performance.</p> <p>The investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	
4462	<p>We don't trust Thames Water to be able to build and maintain a reservoir when they can't fix leaks in existing pipes. Why do you assume that people in this area won't reduce the water usage to the Government target of 110 litres per day, and why are you sharing scarce water from this area with other parts of the country? is this just another way of making your customers pay for the infrastructure we don't need here?</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target.</p>	



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		<p>Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water transfers to other companies - related to Abingdon reservoir Our plan includes regional transfers which will meet the future needs of customers across the south east. The development of the new reservoir at Abingdon will be proportionally funded by customers across the region and will not generate profits for Thames Water. The construction of the reservoir, and future water transfers will be done through joint-ventures to ensure supply in the south east.</p>	
4594	<p>Untreated sewage overflows. Until Thames Water makes the capital investments necessary to stop pouring untreated sewage into the Thames River and tributaries, there should be no more abstraction or there will soon be no viable source of clean water millions of people in London.</p> <p>Restoration of wetlands and other natural flood containment. There is nothing in the current statutory framework beyond supply matching demand by whatever means the water companies choose. This proposal is a prime example of why such a limited framework is no longer fit for purpose. The water companies, the regulators and local communities must work together to protect our sources of clean water as a public asset. The best long term solution to climate change and accompanying shortages of clean water is to restore the natural water cycle by restoring nature. This proposal will have the opposite effect.</p> <p>Lack of accountability. Sadly, the communities up and down the country have no reason to believe that the water companies and our regulators can or will act in the best interests of the communities they serve. Our rivers, lakes and seas</p>	<p>On the discharges of untreated sewage, it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. . At the beginning of 2022 we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>The discharge of untreated sewage is a separate issue to the Teddington DRA scheme. As part of this scheme the new abstraction would be upstream of Teddington Weir and there is no route for raw or untreated sewage to be discharged in the River Thames, upstream of Teddington Weir. The Teddington Direct River Abstraction (DRA) scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>are open sewers because neither are able to stop the pouring of untreated sewage into our communities. I do not trust Thames Water to stick to the plan and I do not trust that either the environmental agency or Ofwat to have the means or will to enforce that plan.</p> <p>Capital investment. The people I spoke with blamed asset stripping by previous owners for the current state of our water infrastructure. They also made it clear that Thames Water has no intention of making capital investments funded by any source other than household rate payers. This is not sustainable. The people of this country expect and demand that proper investments in the network be made and that they are made now. There is nothing to stop the current owners from continuing that cycle of asset stripping, failure to invest and gouging rates payers for whatever level of profiteering it chooses to pursue from its monopoly.</p>	<p>extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged.</p> <p>We note your comments in relation to restoration of the environment, and nature based solutions are part of our long term plan but in view of the substantial challenge we face in terms of sufficiency of water these will not be sufficient to tackle the planning challenge and this is why we need a combination of measures - to make the most of the water we have available, to develop new sources and to progress catchment schemes.</p> <p>We note your comments on trust and performance. In 2021 we published our turnaround plan and are committed to making progress in delivering the plan, which will improve levels of service day-by-day for our customers and protect the environment. We operate within a strict economic and environmental regulatory framework and government and regulators will hold the company to account to deliver against its commitments..</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017. The investment in new water infrastructure is likely to follow the Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	
4594	<p>Leaks in the mains. It makes zero sense to add to the stress levels of the Thames or ration usage for households without a credible plan to fix the 75% of current leaks which are due to mains as opposed to leaks at the household level. I do not believe the excuse that this would be too disruptive.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and it's relationship to household demand</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Reducing leakage is a priority for us. Right now, around 24% of the water we treat / put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our</p>	



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		<p>network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p>	
4594	<p>I am writing to oppose the proposal to abstract clean water by Teddington lock and replace it with treated effluent as an additional source of drinking water for East London in the event of drought.</p>	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need. Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. With specific regard to the proposed scheme at Teddington, protecting and enhancing the environment is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. The programme of studies includes the assessment of the water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. We will do more detailed assessments, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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4650	Please put forward the Cotswold Canal scheme for water transfer as the best, cheapest and earliest completion option for this water transfer from the River Severn to the Thames.	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.
4651	<p>As a user of the Thames at Teddington, above the lock, I'm extremely worried about the proposals listed.</p> <p>There are numerous clubs and users who would be severely impacted by tampering with the Thames water.</p> <p>I row from the skiff club, where skiffs, kayaks, canoes, dragon boats, outriggers, rowing boats, punts and sculls all use this river daily. Above and below us are</p>	We appreciate the level of use of the River Thames around the Teddington area by recreational users, and we are committed to environmental protection and environmental enhancement. This recreational value and the potential risks of a DRA scheme to that value are being assessed as a dedicated topic in our assessments in 2023 and 2024.	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low



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	<p>sailing clubs. Many SUPs launch from the public slipway behind trowlock island and many of us swim in the river here.</p> <p>Added to this, although the river ceases to be tidal at Teddington Lock, during high tides throughout the year the river floods upstream over the lock and the "hards" of our site are under water.</p> <p>Any unclean or pollutant water would greatly impact us directly.</p> <p>I am against this project.</p>	<p>From our prior assessments (i.e. to end of 2022) which have relevance to recreational usage, we currently assess that:</p> <p>The discharge of recycled water will ensure the volume of water passing from the river to the tidal river is retained - this volume of water is a key issue for the ecology of the river and the movement of fish between the estuary and the river and back. Around the discharge and abstraction location above Teddington Weir, we are committed to ensuring there is no change in the water level or river currents from operation of the scheme. This is to ensure no effect on river users or river ecology, in particular fisheries. We have been thoroughly investigating the chemical quality of both the River Thames at Teddington and the chemical quality of our treated sewage at Mogden sewage treatment works in order to determine the amount of additional treatment that is appropriate to ensure absolutely no worsening of chemical quality. For many chemicals this quality will be significantly better than the current quality of the river. We are working closely with the Environment Agency to ensure this is the case. This will safeguard the ecological quality of the river. If this cannot be demonstrated then the scheme will not go ahead. On spring high tides, Teddington Weir does overtop, and there are known to be reversing of the current direction for short periods at these times. An operating pattern for the scheme will be developed that ensures that on spring high tides the discharge is switched off to ensure it does not reverse. These operating rules are under development. All of these issues will be assessed in greater detail through 2023-2024, including potential impacts upon recreational users.</p>	<p>risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4652	<p>Thank you for launching the Consultation and inviting views concerning the proposal by Thames Water to replace at Teddington abstracted water in the Thames by highly treated sewage water.</p> <p>I am concerned over the proposal.</p> <p>The water that will replace the water taken out will come from the Mogden Sewage Works. According to Mak Water[1], Sewage Treatment Plants</p>	<p>The source of water is taken from the treated effluent of Mogden STW, which will then receive further tertiary treatment part of which is specifically designed to remove nutrients (including phosphorous and nitrogen) and solids, both of which will reduce the biochemical oxygen demand. The Environment Agency, who will need to permit the scheme, consider the Teddington DRA scheme as a 'planned discharges', and not a "normal" sewage works discharge. As such the scheme will not only need to demonstrate that with designed-in advanced treatment that it will not deteriorate river water quality, but also that it will not jeopardise the river from</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our</p>



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	<p>experience:</p> <ul style="list-style-type: none"> o Issues with downstream equipment failing o A failure to meet total nitrogen targets o The treated effluent not meeting phosphorous targets o The treated effluent not meeting biochemical oxygen demand targets o Issues concerning unpleasant odours. <p>I would guess it is a certainty that there will be times during the year when the sewage water going back into the Thames by Teddington Weir will be contaminated in some way, or not meet the published standards.</p> <p>According to the Government[2], Thames Water only managed 2 stars out of four when assessed under the Environmental Performance Assessment metrics in 2021. The Government's comment was: "Company requires improvement". In 2021 there were seemingly 271 'Actual' Thames Water Pollution Incidents. Of these, there were apparently 12 serious incidents. With these figures – and I hope I have interpreted them correctly as I am not expert - I am concerned over the possibility of the quality of the water – and the river diversity - deteriorating around the Teddington Weir if this proposal is permitted to go ahead.</p> <p>I am a member of The Lensbury Leisure Centre – adjacent to where the abstraction plant will be built. I joined not just because of the gym and the swimming pool facilities, but because it has a Sailing Club and the grounds have a lovely view across the river. The Thames here is a beauty spot, enjoyed by swimmers, paddlers and walkers. The construction of the abstraction plant and effluent discharge will not only create noise during the three years of building, but when finished will surely undermine the beauty of this stretch of the Thames.</p>	<p>achieving its target (good) water quality. This is for all chemicals with environmental quality standards to protect wildlife - please see the WFD Directions [https://www.legislation.gov.uk/ukxi/2015/1623/pdfs/ukxi0d_20151623_en_au_uto.pdf] and the other operational chemicals included in permitting [https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit]. As such the scheme would not reduce water quality.</p> <p>The scheme will not discharge water with an odour due to the advanced treatment being incorporated, although an Odour assessment is being progressed.</p> <p>There will not be a physical pathway for storm overflows to be discharged through the new discharge. The new Tertiary Treatment Plant at Mogden STW will have live monitoring which will enable diversion of the recycled water back to the head of the plant if water quality approaches the permitted limits. This will all be required as the discharge is not a waste water discharge, and is considered as a 'Planned Discharge' by the Environment Agency so will be held to strict standards to protect the environment.</p> <p>As you note the River Thames has many existing water quality pressures, and this scheme would support overcoming this. We also note that when the scheme is operating, the amount of chemicals discharged from our Mogden sewage treatment works to the tidal Thames, which operates under permit from the Environment Agency, would reduce. This scheme would contribute to the overall reduction of chemicals entering the water environment.</p> <p>Regarding last point concerning visual impacts - The new outfall located just up from Teddington Weir will be below the water level and therefore not visible once completed. The new intake located around 100m upstream will need to include structures to protect eels and fish and therefore will be visible on completion, but we will look to reduce its visual intrusion where possible utilising natural screening and other measures.</p>	<p>preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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4653	I fully support the Cotswold Canal -SevernThames transfer option on the water resource management plan.	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.
4654	<p>The environmental and social capital ambition that the canal offers is not matched by the pipeline option which has little or nothing to offer by way of environmental or Natural Capital gain.</p> <p>The very strong support in previous consultations for the Cotswold Canals transfer option does not seem to be influencing the plans.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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	<p>It makes no sense to build the long lead time SESRO first and the shorter lead time STT scheme after it given the problems of climate change, the uncertainty around demand reduction and the imminent shortage of water supplies.</p> <p>The most optimistic estimate for the completion of SESRO is 2040 but given the well organised and funded local opposition this could be delayed by years or even decades. This option has already been discussed for 40 years.</p> <p>The additional financial value of restoring the canal could run to about £800million over the next 80 years according to the recent IWA Waterways for Today Report.</p> <p>The Cotswold Canals SevernThames Transfer (CCSTT) scheme is the best solution to providing desperately needed additional water supplies to London and the South East.</p>	<p>process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4655	<p>I am not in agreement with the proposed Abstraction Plant to be installed at Teddington Weir.</p> <p>Reasons for this:</p> <p>I am concerned about the impact on the environment and river of having treated sewerage going back into the river, the area is a local beauty spot and is enjoyed by swimmers, paddlers and walkers, the river must be protected.</p> <p>This will have a detrimental affect on the river life, fish, insects, plants and river diversity will suffer immeasurably.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river. In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	I do hope that you can reconsider this proposal.	<p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. For further information on the scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
4656	the proposed reservoir is not needed (population and water shortage exaggeration).	<p>Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements. We have used independent consultants, Edge Analytics, to then align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Levels of resilience are prescribed by Defra to be 1 in 500. The licence reductions required are defined by scenarios of flow change prescribed by the Environment Agency, and we were directed to consider this scenario in our preferred plan.</p> <p>Climate Change impacts use "UKCP18" climate change projections. Our "high", "medium", and "low" scenarios considered are approximately 75th percentile, median, and 25th percentile impact scenarios from UKCP18, and are thus not extreme scenarios.</p> <p>Given this we reject any suggestion that we have over exaggerated either population or the water shortage and that large strategic supply options, such as the proposed reservoir, are required.</p>	Our preferred plan includes a PCC target of 110 l/h/d.
4656	the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).	Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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4656	<p>Financial and Commercial facts: The Thames valley customers pay. Thames Water’s shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Specifically in respect of our shareholders, they have not taken a dividend for five years (since 2017). They are underwriting a turnaround plan to prioritise investment in improving service for customers and to protect the environment that will see us invest £1 billion more in the network than we will receive from bills and this year they have committed £500m of new equity.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4656	<p>I wish to object to the Thames Water Planned Reservoir for the following reasons: Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity. Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now! Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage? Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment</p>	



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		<p>(EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most</p>	



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		<p>embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	



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4657	<p>I wish to take part in the consultation for the SevernThames water transfer scheme, which is the reason why I am writing this message today.</p> <p>I have just watched a webinar and found the content extremely informative, in many ways. -I have learnt about the needs of London and the South East and the potential of that part of the country running out of water with the forecasted population growth and climate change causing droughts in future dry summers and the necessity to transfer water from other regions in the UK to alleviate this critical situation.</p> <p>I am far from being an Engineer and my technical knowledge is limited, but after watching the presentation I gained an awareness of the different proposals being discussed and came to the conclusion that using the Cotswold canal as a route to transfer water seems the optimum scheme to adopt for many reasons, including the following:</p> <p>The environmental benefit – restoration of the canal would result in bio diversity flourishing and would deliver huge healthy living opportunities to people using it for recreation and more. - I cannot see that laying pipelines and creating desalination plants can possibly promote any such advantages.</p> <p>Another very valid reason for selecting the Cotswold canal scheme would be the lead time for starting and delivering the end result of relieving the problem of water shortages to London. -The better value Cotswold Canals SevernThames Transfer should be implemented before the much longer lead time SESRO (Abingdon reservoir) because it can deliver much more water and much sooner.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>I am aware that both proposed projects involve a pipeline, but the canal water transfer scheme does not involve such a lengthy one as the alternative and leaking pipework surely must be a consideration.</p> <p>The monetised value of the Cotswold canal scheme appears to be flawed and underestimated and calculations should be reevaluated. -There is a lot of evidence to support the view that the Cotswold Canals SevernThames Transfer is the best value strategic water option.</p>		
4658	<p>I write in support of the Cotswold Canals Trust in their attempt to justify using the canal to transfer water from the River Severn to the Thames instead of using a pipeline across country which would cause huge disruption while it was being installed.</p> <p>Restoration of the canal including facilities for the water transfer would bring huge benefits to the local communities along the route much earlier than if the restoration work was to proceed as at present by the inevitably slow working of volunteers. The benefits would include a long distance walking/cycling path, wildlife corridor, opportunities for local businesses to provide cafes, B&Bs etc. for tourists as well as services for the boaters.</p> <p>It seems only sensible to combine the necessity for the water transfer with the benefits it could bring to local communities along the way, and I hope this will be the end result.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4659	<p>I wish to object to the Thames Water Plan for the following reasons:</p> <p>Need</p> <p>The proposed reservoir is not needed (population and water shortage exaggeration).</p> <p>Environment</p> <p>It will cause massive environmental destruction and damage. In construction and once established.</p> <p>Carbon footprint, loss of diversity.</p> <p>Better Solutions</p> <p>Water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key -start it now!</p> <p>Competence</p> <p>Why should we believe that Thames Water know how to build such a structure and maintain it, granted their record with leaks/sewage.</p> <p>Risk</p> <p>Flooding has not been assessed, nor has the risk of catastrophic</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>inundation/dam breach.</p> <p>Transparency</p> <p>The details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p> <p>Financial and Commercial facts</p> <p>Thames valley customers pay. Thames Water's shareholders benefit. - The water is not for Thames Valley/Oxfordshire but is to be sold to Southern Water after sending some to London.</p>	<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse</p>	



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		<p>impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ 	



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		<p>- 121 earth embankment dams with a crest length of at least 10km</p> <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	
4660	<p>I'm writing to support the proposal for the Cotswold Canals SevernThames Transfer (CCSTT) option which in my view is the best option for the following reasons:</p> <p>The proposed reservoir near Abingdon will cause significant damage to the landscape and, if it succeeds in overcoming the strenuous opposition from local residents and environmental groups, will require many years to construct. - Given the anticipated shortage of water supplies due to climate change and the uncertainty of measures to reduce the demand for water in the SouthEast in the shorter term, it makes no sense to build the long lead time Abingdon Reservoir before the shorter lead time SevernThames Transfer scheme. -The CCSTT scheme should be delivered as soon as possible to reduce risk of water shortages and potentially reduce environmental abstraction.</p> <p>The proposed pipeline option for the SevernThames Transfer doesn't have the environmental benefit of the restored canal, providing habitats for many diverse species and mitigating the effects of climate change. -A buried pipeline has little</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>or nothing to offer by way of environmental or Natural Capital gain compared with using the canal; the same goes for water reuse plants and other schemes for water resource management. -In this respect restoring the Cotswold Canals could act as mitigation or biodiversity offsetting for other water resource measures.</p> <p>In addition the pipeline option doesn't appear to have taken into account the financial value of the restored Cotswold Canals in terms of social amenity, public wellbeing and the local economy. -The recent IWA Waterways for Today Report estimates that the financial value of the social and economic benefits of restoring the canal could amount to about £800million over the next 80 years, a significant factor in comparing the cost to benefit ratios of the various proposed schemes.</p> <p>I would also mention my concern that the very strong support for the CCSTT option shown in previous consultations does not seem to have been given due weight in the proposed water management plans.</p>	<p>Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4661	<p>This scheme is a win win scheme it provides a dual value, with the bonus of a leisure and nature enhancement to water transfer, the principal aim.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4662	<p>This scheme is a win win scheme it provides a dual value, with the bonus of a leisure and nature enhancement to water transfer, the principal aim.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4663	<ul style="list-style-type: none"> • An independent verification of the population and housing growth assumptions is required as a priority, with ONS data used as the basis for demand forecasting. The current assumptions overstate both population and housing growth, and hence demand levels. A reduction in demand levels would clearly drive a fundamental change in the strategy proposed • Government planning policy should also be revised to ensure all new housing schemes incorporate the best practicable technology to reduce net water usage eg grey water harvesting and reuse 	<p>An independent review of growth methods used by Thames and WRSE has been undertaken by Professor Adrian McDonald, an Emeritus Professor of Leeds University. He has found the growth work undertaken fit for purpose and a summary of his report will be published by WRSE once complete.</p> <p>Given this we find no compelling reason to believe our growth forecasts are overstated.</p> <p>Government planning policy is a matter for Government and therefore any views should be directly addressed them.</p>	<p>Our preferred plan includes a PCC target of 110 l/h/d.</p>
4663	<ul style="list-style-type: none"> • I am in favour of a national water transfer infrastructure to move water from high rainfall areas (the North, Wales etc) to low areas (eg the South East). As such, it is not appropriate to have a Water Resources Management plan developed solely by Thames Water, in conjunction with Affinity and Southern Water - effectively a small stakeholder group in a monopolistic regional position. The plan needs to be national (rather than regional), to target a national strategy which moves water from high to low rainfall areas 	<p>Thank you for your response. Thank you for your comments. The National framework for water resources' sets out how water companies need to plan future water supplies. It sets out that water companies should work together in regional groups to plan for our future water needs while protecting the environment. Following this guidance, we have worked with five other water companies in WRSE to develop a plan for the whole of the South East region. The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>	<p>Since our draft WRMP further guidance has been received from the Environment Agency, Ofwat and Defra that sets a clear policy pathway to 110 l/h/d by 2050, and 122 l/h/d by 2037/38, and new targets for NHH too. We will aim to achieve these new household and non-household targets in our revised draft plan through some improvement in our reductions and further government led reductions. We made it clear in our draft WRMP that further customer reductions were challenging from the analysis carried out to date.</p> <p>The requirement to plan on the basis of achievement of the 110 l/h/d target has reduced the long-</p>



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			<p>term need for water resources across the WRSE region and as such the STT is no longer selected in 2050. The STT remains an important part of our plan, as a backup to SESRO and as an option which may be required should the PCC target not be achieved. We have revised our programme appraisal between dWRMP and rdWRMP, due to changes in the water resources planning guideline and due to comments on our draft plan from regulators and stakeholders. Revised appraisal is documented in Sections 10 and 11 of our rdWRMP24.</p>
4663	<ul style="list-style-type: none"> • In addition, Ofwat and Defra should review the water company reward mechanisms to ensure that water company decisionmaking processes are not driven by stakeholder value but by strategic need and the appropriateness of the solution • In addition, Thames Water's decision to close and sell 26 reservoir sites should be examined in the context of Thames Water's desire for a new reservoir facility. The driving force here is clearly shareholder value over resilience • I urge the water companies, regulator and Government to reject this plan and come up with a robust, national water management strategy, which addresses leakage and consumption as the first priorities, with any asset investment targeted at moving us closer to a true national water network. 	<p>Thank you for your feedback and we note your dissatisfaction with the proposals. In regard to your points around prioritisation of leakage and consumption, I can confirm that these are both core to our draft plan. We are committed to halve the amount of water lost through leaks by 2050, this is an ambitious target, and alongside measures to reduce demand this will make up over half of the water shortfall forecast by 2050.</p> <p>In respect to the sale of reservoirs, I can confirm that Thames Water has not sold off operational storage reservoirs. With the construction of the water ring main around London a number of service reservoirs were redundant and so some of these sites were sold.</p> <p>Government and the regulatory agencies, Ofwat and the EA, set a stringent regulatory framework within which we must work. Our shareholders have not taken a dividend for five years (since 2017). They are underwriting a turnaround plan to prioritise investment in improving service for customers</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>and to protect the environment that will see us invest £1 billion more in the network than we will receive from bills and this year they have committed £500m of new equity.</p> <p>The investment in new water infrastructure is likely to follow the approach used for Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	
4663	<ul style="list-style-type: none"> • Thames Water's performance in leakage reduction (the worst leakage rates in the UK 50% higher than the national average at 152 litres per property per day vs 98 average itself too high), sewage discharge into rivers etc is simply unacceptable and a detailed review of the company's performance needs to be undertaken by the relevant Government department and by Ofwat • The plan needs to be revised with a much greater emphasis and focus on leakage reduction AS A PRIORITY targeting reduction levels of at least 7580% from current levels. This would remove the necessity for new infrastructure entirely • Greater emphasis is also required on education of the customer base to reduce consumption levels the plans proposed are grossly inadequate • As such, I have no confidence in Thames Water's planning capability, its ability to deliver a plan of leakage reduction/water consumption reduction or to deliver a capital project of this magnitude to time and cost 	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be identified via traditional leakage control or pipe replacement methods, often very small leaks.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p>	



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		<p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	



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4664	<p>Myself and my family are residents in Teddington and have heard of Thames Water’s new proposals for the Thames in Teddington. I believe that the water in the Thames is unique and the river life here is very good at the moment. My prime concern is the cost it will have on the water environment and river life in the area. Pumping treated wastewater effluent into the river will change the temperature and quality of the water in this area.</p> <p>There are local swimmers, yachtsmen, rowers and kayaks that also use this river.</p>	<p>Thank you for your response to the consultation. We are aware of how well used the river and local areas are used for recreation and protecting and enhancing the environment is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. Following the assessments so far, we have reduced the scheme size to ensure we protect the environment. We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4666	<p>Having spent some time studying the plans for transferring water from the Severn to the Thames I can only conclude that the overall best value option is to use the course of the Thames & Severn canal. This ready made route provides so many advantages, technical and especially environmental, that it is hard to see any justification for the alternative of a pipeline across the Cotswolds. My big concern is that those responsible for developing this project are expert only in pipeline solutions. They need to take a wider view – there is a better solution available which is much more likely to gain public acceptance, together with public and peer recognition on completion.</p> <p>I fully support the Thames & Severn canal option.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4667	<p>I wish to add my thoughts to this consultation, as I believe firmly that the option of using the Cotswold Canals for water transfer is superior in so many respects to the pipeline option.</p> <p>I understand that 'best value' rather than 'least cost' is an important objective in bringing about a solution to the problem of water transfer to the southeast, and in these terms I feel sure that the Canal transfer option will win on both counts. - As one who has lived in Hampshire for many years, I still look back to the appalling political decision which led to the M3 being routed through a huge cutting in Twyford -Down around Winchester. -A fairly recent admission that the tunnel option would have been cheaper shows that the most expensive as well as worst value option was taken and is an example of how so many such large nationally important projects go so seriously wrong when the decision is based on political dogma rather than common sense. -</p> <p>Others will have made more points which I will also make in brief about the long term benefits of the canal transfer option in terms of best value, cost (in all probability) and benefit to the local economy as well as timescale in swiftly (relatively) bringing about your objectives. -I also have serious concerns about the damage to the Cotswolds area of outstanding natural beauty if a poor decision leads to a pipeline, with the enormous landowner compensation costs, planning costs and high consultants fees in providing the necessary impact assessments. -In environmental terms the canal option is, I believe, a far superior way forward in all respects.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>I do hope that here a sensible and sustainable solution can be found to this important objective by transferring water via the Cotswold Canals.</p>	<p>government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4668	<p>I am writing to object to the proposal to pump sewage water (however treated) into the Thames at Teddington.</p> <p>The Thames has already had to cope with sewage processing from cities upstream like Swindon, Reading and Oxford. Natural life along the river (birds as well as fish) already have to face this.</p> <p>Pumping treated water upstream does not appear to be sustainable as it would then need to run all the way down river (right through the centre of London) back down to the sea.</p> <p>This stretch of the river is heavily used for recreational purposes in an area with a large local population who benefit enormously from these facilities, which run right along this stretch of the river from Hampton to Richmond.</p> <p>Children such as my grandson learn to handle themselves properly on water, which is important given the number of lakes, rivers and streams in the area, and they are quite used to falling in the river as part of their activities. So their health is an issue here.</p> <p>The area proposed is one of outstanding beauty (something which is rare so close to London). The installation itself will be unsightly and inappropriate to the local environment.</p> <p>I also have to declare an interest: I was a local resident in Ham for 18 years, and am a longstanding member of the Lensbury Club at Teddington, whose business depends heavily on its location by the river. I am also a regular user of the boathouse, so I know this stretch of the river very well.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4668	<p>I have to say that Thames Water does not have a good reputation with regard to conservancy (2*/5 from the Environment Agency?)</p> <p>I would also refer you to the recent television programme by Paul Whitehouse "Our Troubled Rivers" (BBC2 on Sunday 12 March). You may wish to note that I come from Whitstable and am fully aware of the problems that have occurred there in recent years.</p>	<p>Thank you for taking time to provide your feedback and we note your dissatisfaction with our performance. We are committed to making progress in delivering our turnaround plan, leading to improving levels of service day-by-day for our customers and protecting the environment. We operate within a strict economic and environmental regulatory framework and government and regulators will hold the company to account to deliver against its commitments.</p> <p>Specifically in regard to the discharge of untreated sewage, we agree that this is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
4668	<p>Might I suggest that you focus more on the continued heavy loss of processed water from the existing system. (I understand that up to 20% of it is still being lost.)</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the</p>	



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		comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.	
4670	<p>I am writing in support of the Cotswold Canals Severn – Thames Transfer option in the Regional Plan. -This is for the following reasons:</p> <p>SE England, including the Thames Basin and London area has some of the lowest rainfall in Britain and the highest population density and continues to grow. -Therefore, it will continue to need increasing supplies of water. Such a supply could easily be from the River Severn which rises in high rainfall areas of Wales and collects significant quantities of water en route to the sea. - Taking water from this River near Gloucester would have a limited environmental impact.</p> <p>The move water from the Severn to the Thames over the lowest point in the Cotswold (Sapperton Tunnel) would seem a very efficient route as it reduces the cost of electricity and CO2 emissions. -</p> <p>The longer and higher Deerhurst to Culham option will be unnecessarily more expensive. -</p> <p>Why not transfer it via the Sapperton Tunnel on the Cotswold Canals and thereby include the restoration of the historic waterway for use by a variety of users such as boaters, walkers, runners, dog walkers and cyclists? -Disabled people also make use of the towpath where it has been restored. Environmentally this makes considerable sense as wildlife (flora and fauna) habitats can be further enhanced. -</p> <p>Thus, combining the restoration of the canal with the increased supply of water to London and the South East is of benefit to everyone whereas costbenefit analysis of the alternatives would not seem to be beneficial to anyone.</p> <p>Therefore, I support the Cotswold Canals Severn Thames Transfer option.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
4673	<p>Thames water has recently posted a £398 million pound profit despite a jump in leaks during the drought. Surely some of that could be spent on the Water Recycling Plant at Beckton or another scheme that would not involve pumping</p>	<p>Thank you for taking time to provide your feedback. The purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the</p>	<p>We have provided information in response to your comments,</p>



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	<p>clean water out of the river at Teddington and returning treated or untreated sewage in its place.</p> <p>Are you putting profits before the safety of people, wildlife and the environment?</p>	<p>environment. Tackling leakage is an important part of our draft plan, and alongside measures to ensure we use our water resources efficiently, makes up over half the shortfall we predict. The work we have done to date sets out the need for investment in new water sources, including the new abstraction in west London supported by water recycling.</p> <p>In respect to the scheme near Teddington, we would like to confirm that there is no route for raw or untreated sewage to be discharged in the River Thames, upstream of Teddington Weir. The Teddington Direct River Abstraction (DRA) scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged.</p> <p>In terms of shareholders and profits - Our shareholders have not taken a dividend for five years (since 2017). They are underwriting a turnaround plan to prioritise investment in improving service for customers and to protect the environment that will see us invest £1 billion more in the network than we will receive from bills and this year they have committed £500m of new equity. The investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit. Our draft plan seeks to ensure a secure supply of high quality drinking water for future generations whilst protecting the environment.</p>	<p>there are no changes to the plan as a result of your representation.</p>
4673	<p>Apparently Thames Water loses 25% of supply through leaks. Could Thames Waters resources be better used in upgrade and repair works to stop these leaks?</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24</p>	



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		<p>hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4674	<p>It becomes ever more clear what a devastating impact climate change is having, from flash flooding to drought, which the WRMP24 plan should be looking to improve through better management of our water resource. We need to protect flow during dry weather -there is far too much abstraction from the river, and the response to the drought in 2022 was too slow.</p>	<p>We agree that action is necessary to mitigate the impacts of climate change in ensuring a resilient supply of water in the future. We also want to protect and enhance the environment that we rely on to provide water for public supply. We're taking action such as reducing leaks and installing meters in order to reduce our overall abstraction in the short term, and are planning to introduce new supplies in the medium term to combat the range of risks that we're facing.</p> <p>We recognise that abstraction licence reductions may be needed to ensure healthy rivers in the future. In building our plan we have acknowledged the need to undertake thorough investigations prior to determining the licence reductions that will be needed in the future, as infrastructure and new sources of water will require significant investment, and so it's important that we're sure of the need to make licence reductions. We have looked to determine whether we can accelerate our programme of investigation and potential implementation of licence reduction, and this is reflected in our dWRMP24.</p>	<p>Changes are per our consideration. We have revised our programme appraisal and this is presented in Section 11 of our rdWRMP24</p>
4674	<p>We do not suffer from sewage pollution on the Darent, but farm runoff and eutrophication certainly seems to be a considerable issue. On many occasions the river in the last few years has been full of algal growth and has looked really sick. We need to manage farming better, and have stricter rules for landowners of all kinds who own river catchment.</p>	<p>Thank you for your response. We carry out an extensive ongoing programme of farmer engagement to improve the water quality in our most vulnerable catchments. Our work is part of the broader national action from industry, regulators and Government to support farmers in this matter.</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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4674	<p>Given the strong evidence of the benefits of smart metering, Thames Water should fast track the roll out of smart meters, and achieve near 100% coverage by 2030.</p> <p>Thames Water's aim of helping people to reduce their water usage to 123 litres per person per day (from 141 currently) also lacks ambition. Other companies in the south east aim to meet the government's target of 110 litres.</p> <p>This raises questions about whether Thames Water is doing enough to target very high water users, including in business sectors such as leisure. Are there approaches to leakage management that Thames Water can learn from others? In Shoreham we repeatedly suffer from mains pipe leaks that are left gushing, sometimes for weeks or months. Thames Water must step up learning, innovation and testing to ramp up effective demand measures quickly.</p> <p>Teach users how to save water. Facilitate and promote grey water systems, especially for high water users and business.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Grey water reuse and rainwater collection Rainwater harvesting has been considered as a demand reducing measure. We have previously offered water butts for garden usage and continue to promote rainwater capture within our multi-channel customer engagement activity. Scaling up, the difficulty is that retrofitting either rainwater and/or greywater system technologies into existing properties is extremely challenging and the fittings are not readily market available. We believe there are better opportunities to increase water use systems into new developments, particularly large ones, at the design stage. We have recently launched an industry first Environmental Incentive for developers, offering financial incentives to embed water efficiency fittings, water reuse</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>technologies (RWH/GWR) and deliver 'water neutrality' for any new housing development in our supply area. This incentive model is being promoted to developers, planning authorities and regulators. We have also worked closely with Defra and other government areas, on efforts to strengthen future Building Regulations, so that water reuse technologies and requirements become business as usual.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Non-Household (commercial) water use</p>	



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		<p>The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role.</p> <p>Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes.</p> <p>In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data.</p> <p>We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p>	
4674	<p>As a Thames Water customer, I am urging you to consider the points below in the reviewed plans:</p> <p>- Reducing abstractions from the environment is welcome: namely the abstraction reductions at Epsom on the Hogsmill chalk stream, and also the</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level,</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date</p>



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	<p>planned 151 million litres per day from the Darent, Cray and Ravensbourne. The most ambitious targets are to be encouraged.</p> <p>- It is great that Thames Water plans to develop new sources of water sooner rather than later to support environmental improvements across the south east. However, the environmental impact of the Teddington abstraction scheme remains a concern. This will release treated sewage into the river, raising the temperature and impacting water quality with negative consequences on the freshwater ecosystem and wildlife. Bringing forward the timetable for other options, including the proposed reservoir near Abingdon, is preferable.</p>	<p>velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. We recognise that many people have concerns with the scheme and as such have signed a petition. We hope we can continue to work with and listen to the community to develop a better understanding of the scheme and build trust. For further information on the scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4676	<p>All progress is good, but faster progress towards cleaning up the Thames is better. Pressure to do so is not going to diminish, and we know we shall have to pay more for it.</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p> <p>At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	
4676	<p>Proposals to encourage less and better use of water seem obvious. A campaign to encourage us would surely pay for itself in less demand and less sewage.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4676	<p>I strongly support the plan for a new reservoir. I don't live anywhere near the site, but if I did, I would not object. Reservoirs do not despoil the countryside but provide a new environment for fishing, boating, walking and wildlife. They enhance the countryside.</p>	<p>Noted, thank you.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
4677	<p>I wish to object to the Thames Water Plan for the following reasons:</p> <p>Need: the proposed reservoir is not needed (population and water shortage exaggeration).</p> <p>Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination these are drought</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p> <p>Transparency: the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p> <p>Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also</p>	



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		<p>within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p>	



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		<p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act.</p>	

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		<p>This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	
4678	<p>I'd like to express my reservations about the proposed reservoir between east Hanney and Steventon. I do not think the road infrastructure is in place to deal with such an upheaval. I already spend a lot of time waiting in traffic due to recent developments in the area and the added traffic of such a big project would be untenable. I am further worried about the noise pollution that such a large project would undoubtedly bring. Surely there are better ways to improve water supply in the future?</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA), including appraisal of the traffic and transport impacts of the scheme and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>As noted in our Gate 2 submission to RAPID, one of the key aspects of the SESRO site is that it has very favourable clay geology underlying the site. This means that the material needed to construct the reservoir embankments can be 'won' on site, without the need for the import of material that might be required on other sites. It is also located very close to the main arterial trunk road network, so that construction access can be facilitated from the A34 with minimal impact. Furthermore, it is adjacent to the Great West Railway and we will continue to work closely with Network Rail to facilitate a construction freight access into the reservoir site for much of the construction material needed for the reservoir, such as sand, gravel and stone. All of these measures will contribute to our overall plan to minimise the construction and operational traffic and transport impacts from the scheme.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
4694	<p>I am amazed and appalled that this proposed reservoir has once again raised its ugly head. In whose interest this reservoir is being build? It certainly is NOT for the customers of Thames Water.</p> <p>I wish to register my strong objection to this proposal of this 25-30 metres high reservoir, holding 100 million cubic meters of water for the reasons below:</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<ul style="list-style-type: none"> • Building this reservoir will cause huge disruption over the period of the build causing delays and road damage to the already overstretched local roads and causing enormous pollution and environmental damage. • The build will also destroy the local wildlife habitats with a great loss of biodiversity when we should be paying more attention to preserving nature. • The cost of the reservoir , estimated at £1.5 billion and most likely to exceed that amount would be better used in repairing the existing waterpipes, thereby saving more water than the reservoir would provide. Apart from saving water through leakage, more funds should be made available to build extra processing plants in order that raw sewerage does not need to be dumped into our rivers, causing great harm to existing plant and animal life. • The building of this reservoir will not solve the drought problem in the immediate future as the build will not be complete until 2037. • Why is the Severn to Thames Transfer (STT) not being given more consideration as this would resolve any water shortage far quicker, more effectively and efficiently at a far lesser cost. Any disruption to the local environment and wildlife will soon be restored. • The size of this reservoir would create a micro-climate and could severely affect houses in the shadow of the reservoir, blighting the lives of the people living in this area and reducing the value of their homes. • A reservoir of this size has never been built anywhere else and causes serious concerns to the safety to those living in the area and should the worse happen (a breach of the surrounding wall) an enormous insurance claim will follow, which presumable would be passed on to your customers. • The size of this reservoir would adversely affect the local water table in the area, which is already high, and could cause local flooding of roads and rail track as well as problems with surrounding gardens and foundations of existing buildings. Some of these buildings are hundreds of years old. • The land that is proposed for the use of the reservoir is arable land. We should be using this land to grow crops and keep animals in order to feed the people of the UK instead of having to import food with all the environmental and political problems that this brings. • The walls of the reservoir will use enormous amounts of concrete, a very 	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	



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	<p>polluting building material and there will be use of heavy machinery (all most likely fueled by diesel), which will add further damage to the local environment.</p> <ul style="list-style-type: none"> • The reservoir will NOT provide any leisure facilities (despite the promises) as the size and scale of it will make it far too dangerous. • The increase in population for the affected area is based on outdated data and is estimated to be far lower than the statistics show. <p>To sum it all up. This is just a vanity project, causing huge environmental damage and blighting the lives of the local people. The STT (and better water management) is a far better solution for providing sufficient water for the future.</p> <p>I trust that you will take my and other local peoples’s concerns to heart and abandon the idea of a reservoir and push for the STT instead.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother</p>	



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		<p>and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>As shown by our Gate 2 submission to RAPID (Section 3 and particularly Figure 3.1) we are allowing for extensive recreational activity associated with the new potential reservoir. This includes options for land-based recreation,</p>	



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		<p>such as walking, cycling and horse-riding linked to the extensive public rights of way network around the site, educational opportunities, particularly around the possible wetland creation to the western side of the site, and managed water-based recreation such as a sailing club. These aspects are all built into our appraisal of the relative costs and benefits of the options and are similar in nature to the recreational opportunities offered at other Thames Water reservoirs such as Farmoor or Walthamstow Wetlands.</p> <p>The embankments for SESRO will not be made from concrete, but rather constructed from the bedrock clay excavated from within the reservoir footprint.</p>	
4881	<p>I have completed your online consultation which actually looks so intentionally vague that I'm sure your report on the consultation will be likewise vague, or suggest the public are in agreement with your plan. -I can assure you that in Teddington/Twickenham/Richmond/Kingston, we are not. -There is not even a question that clearly relates to the Teddington plan. -This is disguised as a question about new water source options. -Surely there should be some mention that this entails adding sewerage to the river at Teddington?</p> <p>I recently attended one of your online consultations, and one in person at Twickenham. -I was not really impressed by either. -It appeared to be very highly scripted and answers were pretty much just read off a FAQ sheet. -I was particularly disappointed when one attendee for the online event asked about compensation for local residents for the disruption, and your speaker guffawed at the question. -Great!</p> <p>I was also disappointed that there was no ExCo member at the inperson consultation. -Several of my questions could not be answered by the Thames Water staff present. -Particularly in relation to the company's business plan in relation to this scheme. -Is it possible that Thames Water is trying to increase the value of the company through this proposal, so they can sell the company at an</p>	<p>Thank you for taking time to respond to the consultation. As presented in this document we have given detailed consideration to the points raised to the consultation and considered these in revisions to our draft plan. We have received a large number of representations in relation to the Teddington Direct River Abstraction Scheme requesting further information and expressing opposition to the scheme. We have answered the points fully and directed consultees to the detailed information that is available on the scheme (www.thameswater.co.uk/sro and then London water recycling)</p> <p>We organised two community events in the locality of the proposed Teddington scheme during the consultation period and ensured we had a multi-disciplinary team present to answer questions on the draft WRMP as well as the scheme proposed in west London. I am sorry that you were disappointed that you did not receive full answers to your questions at the event, this does not accord with other feedback received. We are committed to working openly and transparently and if the scheme is included in the final WRMP it will then progress through planning and there will be multiple opportunities for scheme-specific engagement and consultation.</p> <p>The investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>increased price? -If that were to occur, what guarantees are there that a future owner will not change your current plans and damage the environment even further?</p>		
4905	<p>We write to strongly oppose the proposed Teddington Direct River Abstraction Proposal as suggested by Thames Water.</p> <p>We live on Broom Water (TW11) which has direct access to the Thames and in which we boat, canoe, paddle board and on occasion swim. I wonder if Thames Water is aware of the busy recreational use of the Thames at Teddington and the flourishing wildlife that exists and resides in this area.</p> <p>As residents we have done a great deal of research and it seems to us that this scheme is based largely on cost and money saving and holds very little regard for the river environment and community.</p> <p>We urge you wholeheartedly to reconsider this scheme as it would have a devastating effect on this beautiful pocket of London and all whom come to enjoy it.</p>	<p>Thank you for your response to the consultation.</p> <p>Teddington DRA scheme has been selected in the WRSE Regional Model as being best value, not just on cost, but a wide variety of metrics. The plan considers environmental, social and economic needs while still balancing supply and demand for water. For example, in the WRSE regional plan, we considered not only cost but also the wider benefits the plan could provide to you and the environment. We covered everything from boosting biodiversity and offsetting carbon to increasing our resilience to a range of risks, including droughts. We've worked closely with customers and stakeholders to develop the best value objectives and criteria for this draft WRMP24.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
4906	<p>As local Teddington residents and very regular users of the tow path and 'beaches' we are extremely concerned to learn about the possibility of treated sewage being pumped into the river.</p> <p>The tow path represents a very popular recreational resource for many, many people. The areas nearby, namely Ham Lands are also valuable assets to local people and visitors alike. Both sides of the river near the proposed site are heavily built up areas, with many living very close to the river.</p> <p>Clearly the impact on people will be significant, not least by the stench which currently often prevails in the Isleworth area. The impact on the quality of river water is worrying for all river users, not to mention the variety of wildlife that inhabit and visit the river.</p> <p>We strongly object to the proposed recycling plans and trust other more suitable options will be fully explored.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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4907	<p>As a local resident and regular river user, I am writing to express my grave concern regarding the plan to abstract water from the River Thames just above Teddington Weir and replace it with treated effluent from Mogden Sewage Works.</p> <p>Nationwide our rivers having been bearing the brunt of misuse by our regional water authorities for many years and as a result we are now reliably informed that ALL OF THEM currently fail to meet acceptable chemical standards. However rigorous the purification process is, there are many harmful substances which CANNOT be screened out of wastewater. Nitrogen/nitrates, phosphorus, ammonia, residues of fats, oils, greases, detergents and heavy metals together with micro plastic beads and residues of pharmaceutical and personal care products (PPCP's) such as oestrogen from female birth control/fertility pills.</p> <p>This deadly cocktail of impurities is clearly ALREADY having a devastating effect on our waterways, the overabundance of nutrients contained within discharged effluent accelerating the rate of weed and algal growth (Eutrophication). These algal blooms eventually die and are decomposed by bacteria, the process absorbing dissolved oxygen from the water and depriving the resident fish life of this vital constituent. In extreme cases, widespread fatalities can occur.</p> <p>Wastewater contaminated with PPCP's is also affecting our fish life adversely. As far back as the late 1970's, male roach in the River Lee in North East London were found to be evolving FEMALE characteristics ! Their testes were being shrunk and they were developing eggs within them. This remarkable phenomenon was christened "Endocrine Disruption" and was directly attributed to the presence of PPCP's in the effluent being regularly discharged into the Lee, causing extreme hormonal imbalances. Subsequently, further examples of such 'Intersex fish' have been found in many of our rivers nationwide - a truly alarming mutation which clearly impacts upon their ability to reproduce.</p>	<p>This scheme takes treated effluent already being discharged at Isleworth Ait from Mogden STW (under permit from the Environment Agency), treats it to a higher standard and discharges it just up stream of Teddington Weir. This does not provide a net increase in effluent discharge between Teddington and Isleworth, infact it will provide a net reduction in chemicals being discharged to the river within this reach due to the additional treatment. We are working to quantify this through bench testing of the tertiary treatment plant.</p> <p>We have limited control over which chemicals enter the sewerage system. This does not deflect that discharges from our sewage treatment works are a point where these chemicals do enter the water environment. With respect to this scheme, we note that planned discharges, like this scheme, are not being considered by government regulators as "normal" sewage works discharges. They are being required not only to demonstrate that with designed-in advanced treatment that they will not deteriorate river water quality, but also that they will not jeopardise the river from achieving its target (good) water quality. This is for all chemicals with environmental quality standards to protected wildlife - please see the WFD Directions [https://www.legislation.gov.uk/ukxi/2015/1623/pdfs/ukxi0d_20151623_en_au.pdf] and the other operational chemicals included in permitting [https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit]. As such the scheme would not reduce water quality. As you note the River Thames fails water quality measurements and this scheme would support overcoming this. We also note that when the scheme is operating, the amount of chemicals discharged from our Mogden sewage treatment works to the tidal Thames, which operates under permit from the Environment Agency, would reduce. This scheme would contribute to the overall reduction of chemicals entering the water environment. From review of the chemical datasets we continue to collect, we are identifying which chemicals need advanced treatment to make them suitable for discharge to the River Thames at Teddington Weir, and by how much. We are currently setting out laboratory tests to determine the most appropriate advanced treatment processes to achieve this. We are working closely with</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>Another major concern is WHO exactly will oversee this operation on a day to day basis ? The Environment Agency may set stringent limits regarding the volume of water to be removed and the quality of the replacement effluent, but they lack the funds and manpower to fulfil this vital role. Essentially, Thames Water Authority (TWA) will be trusted to monitor/police their own activities and their recent track record is extremely poor in this respect. A report published by DEFRA on 19 Nov 2021 outlined how TWA had accrued a staggering £32.4 million in fines since 2017 for 11 major cases of water pollution. More generally, TWA are accused of consistently failing to self-report serious pollution incidents to environmental watchdogs and have consequently been awarded a lowly '2 star' rating, indicating that significant improvement is required. The strict terms of their discharge licences are regularly being breached - discharges are often too large, of under processed quality and made at times of low water/low flow rates on rivers. Quite simply, when TWA are left to their own devices to do the right thing, THEY DON'T !</p> <p>While I acknowledge the need for an increased water supply within the Thames region, I feel other options should be pursued. Building new reservoirs, water transfers, desalination plants and fixing long standing leaks would surely eliminate the current foul practice of using our rivers as providers AND dumping grounds !</p> <p>To conclude, I will state the blindingly obvious. This plan is a HUGE leap into the totally unknown - no one can be certain that it will be safe, no one can be certain that the environment won't be significantly damaged. I rest my argument.</p>	<p>the Environment Agency to ensure this is effective. We regard this scheme as at the forefront of a sustainable new wastewater treatment network. This will safeguard chemical and ecological quality of the river. If this cannot be demonstrated then the scheme will not go ahead. We understand that this does not fully answer your concerns on chemicals entering the sewerage system or the effectiveness of our current wastewater treatment infrastructure to remove them.</p> <p>Regarding algal blooms. We are working with experts from the Centre for Ecology and Hydrology (https://www.ceh.ac.uk/) to better understand algal blooms in the lower River Thames. The scheme would not increase plant nutrients in the river and we are working to understand if there are other factors influencing algal growth that the scheme could impact. If risks are identified then the scheme design will be revised to mitigate this.</p> <p>For the scheme to operate the Environment Agency will have to issue a permit, which will set water quality standards for the discharge and monitoring requirements which we will have to fulfil and report. The new treatment plant will have continual process monitoring included, which will include a failsafe system that prevents water below the permitted quality from being sent from the treatment plant into the tunnel for discharge, and instead returns it for further treatment.</p> <p>We have looked at a wide range of solutions to reduce the shortfall between the amount of water we have and the amount we need, including reducing demand and creating new sources of water. Working with Water Resources South East (WRSE), an alliance of the six water companies across the South East, we've been exploring new ways to increase water supply, including desalination plants, water recycling systems, new reservoirs, and transfers of water. WRSE assessed every option for cost, water output, the time to deliver the scheme, potential impact on the environment, carbon footprint, and futureproofing. This process has selected the Teddington Direct River Abstraction proposal, among others, as part of an overall best value plan for the period 2025-2035. Further details on the WRSE Regional Plan can be</p>	



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		<p>found at: https://wrse.uk.engagementhq.com/</p> <p>To conclude, this is not a leap into 'the unknown', this is an improved treatment and redistribution of an existing discharge.</p>	
4908	I approve of your proposed support for nature based solutions.	Thank you for your response. We note your support for our approach to nature based solutions, and will continue to build and develop on this approach as set out in our draft and revised draft plans.	No change has been made to the plan as a result of this response, for the reasons set out in our consideration.
4908	I think you should be more ambitious in your per capita water consumption proposal and your target for leakage reduction in the Kennet Valley is far too low.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed</p>	



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		<p>in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4908	I refer to your supply plan and approve of your SESRO plan	<p>Noted, thank you.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by 	We have provided information in response to your comments, there are no changes as a result of your representation.



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		the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes.	
4911	<p>I am appalled at the plan to discharge treated sewage into the River Thames at the Teddington Weir.</p> <p>The health effects to swimmers, rowers, kayakers, anglers and boaters that use the river has not been conclusively and independently investigated. The data collected has been collected by Thames Water and cannot be regarded as independent.</p> <p>Long term effects on children and vulnerable people has not been undertaken.</p> <p>The negative impact Tourism, that will view the discharge of treated sewage into the the River Thames as a detracting factor has not been taken into account.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. In addition to this, The environmental permit from the Environment Agency will define the monitoring required for the discharge. Discussions with the Environment Agency on permitting have started but details on required monitoring have yet to be set. It is likely that the permit will require operator self-monitoring (OSM)¹ with Thames Water responsible for carrying out the monitoring in line with the specific requirements of the permit in terms of frequency, determinands and limits. The permit will also stipulate the frequency and timescales that Thames Water are required to report results to the Environment Agency. It would be expected that there would be monitoring within the system, for example in-situ monitoring of the quality of water through key indicators produced by the treatment plant; and further monitoring within the river to valid modelling and assessment results. Further general information is available from the OSM</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>guidance on the Gov.uk website (linked below). In addition, The Environment Agency will continue to operate their 'Thames at Teddington' long term observation river spot sampling location, and continuous water quality sonde (sensors) barges in the tideway at Brentford, Kew Bridge and beyond. For further information on the scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
4912	<p>1. The plan includes some good and ambitious targets to reduce abstraction in order to protect chalk streams. We support this.</p> <p>2. The plan includes water transfers from other parts of the country and a new reservoir (referred to as SESRO -South East Strategic Reservoir Option).We support the creation of a water transfer network and would like to see transfer options prioritised. We have concerns that the large scale options such as SESRO and Severn Thames Transfer are a long way in the future and do not necessarily benefit the Kennet. We support their development but need other actions to be happening between now and 2050. We welcome the proposed water transfer from Wessex to support the Kennet Valley</p> <p>5. Nature based solutions We support investment in nature based solutions such as wetlands and rain gardens. We think that resilient catchments and engaged communities are an important part of managing water resources now and in future.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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4912	<p>3. Demand management The plan includes actions to reduce water demand that can start now. We think that helping people to use less water is good. Smart metering and stepped tariffs are effective ways to help people manage their water use. However, Thames Water are being less ambitious than the government target, and less ambitious than other water companies. We think they should do more to reduce per capita water consumption.</p> <p>4. Leakage The plan includes targets to reduce leakage by 2050. Overall we support this BUT the level of leakage reduction proposed for the Swindon (SWOX) and Kennet Valley zones is far too low IN A WATER STRESSED AREA and must be significantly improved. At only 14% in SWOX and 30% for the Kennet Valley, both are well below the government target of 50% by 2050. We think that leakage in the Kennet Valley and the Swindon should be reduced much more.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and</p>	



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		<p>commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	
4913	<p>1. The plan includes some good and ambitious targets to reduce abstraction in order to protect chalk streams. We support this.</p> <p>2. The plan includes water transfers from other parts of the country and a new reservoir (referred to as SESRO -South East Strategic Reservoir Option).We support the creation of a water transfer network and would like to see transfer options prioritised. We have concerns that the large scale options such as SESRO and Severn Thames Transfer are a long way in the future and do not necessarily benefit the Kennet. We support their development but need other actions to be happening between now and 2050. We welcome the proposed water transfer from Wessex to support the Kennet Valley</p> <p>5. Nature based solutions We support investment in nature based solutions such as wetlands and rain gardens. We think that resilient catchments and engaged communities are an important part of managing water resources now and in future.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4913	<p>3. Demand management The plan includes actions to reduce water demand that can start now. We think that helping people to use less water is good. Smart metering and stepped tariffs are effective ways to help people manage their water use. However, Thames Water are being less ambitious than the government target, and less ambitious than other water companies. We think they should do more to reduce per capita water consumption.</p> <p>4. Leakage The plan includes targets to reduce leakage by 2050. Overall we support this BUT the level of leakage reduction proposed for the Swindon (SWOX) and Kennet Valley zones is far too low IN A WATER STRESSED AREA and must be significantly improved. At only 14% in SWOX and 30% for the Kennet Valley, both are well below the government target of 50% by 2050. We think that leakage in the Kennet Valley and the Swindon should be reduced much more.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p>	



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		<p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs. Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p>	
4914	<p>-1. I live right by the River Kennet in Marlborough and am watching with alarm what is happening to it. Your plan includes some good and ambitious targets to reduce abstraction in order to protect chalk streams. I heartily support this.</p> <p>2. The plan includes water transfers from other parts of the country and a new reservoir (referred to as SESRO -South East Strategic Reservoir Option). I support the creation of a water transfer network and would like to see transfer options prioritised and commenced as soon as possible.</p> <p>However, I have concerns that the large scale options such as SESRO and Severn Thames Transfer are a long way in the future and do not necessarily benefit the Kennet. I support their development but need other actions to be happening between now and 2050. I welcome the proposed water transfer from Wessex to support the Kennet Valley.</p> <p>5. Nature based solutions I support investment in nature based solutions such as wetlands and rain gardens. I think that resilient catchments and engaged communities are an important part of managing water resources now and in future. It demonstrates to the public that TW are taking the problem seriously by taking visible action.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>




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		<p>Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
4914	<p>3. Demand management The plan includes actions to reduce water demand that can start now. this is good. Increasing awareness and assisting people to use less water is urgently needed. Smart metering and stepped tariffs are effective ways to help people manage their water use. However, Thames Water are being less ambitious than the government target, and less ambitious than other water companies. I think they should do more right now to reduce per capita water consumption. They should also let Planning Authorities know that they simply cannot meet the demand for more water or processing increased sewerage in the area, so say no to new housing projects and make that very clear.</p> <p>4. Leakage The plan includes targets to reduce leakage by 2050. Overall I support this BUT the level of leakage reduction proposed for the Swindon (SWOX) and Kennet Valley zones is too low. At only 14% in SWOX and 30% for the Kennet Valley, both are well below the government target of 50% by 2050. Leakage in the Kennet Valley and Swindon should be reduced much more, again, urgently.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>removed prior to this figure. This is purely a measure of household customer use.</p> <p>Government-led water use reduction policies In addition to the actions we can take, the government is planning to introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits. Direct incentives are unlikely to be large enough to influence house builders. We are working with several government-led steering groups to scope future mandatory water labelling and strengthen the water efficiency standard of new build properties and tighten water regulations. These standards may see alignment with the proposed mandatory water labelling scheme, and fitting of grey and rainwater harvesting systems become business as usual. Expectations that the government will take future action are included in our forecasts.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%. In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between</p>	



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		<p>minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4933	<p>Our main issue -is we live here (Red dot): .png It is a Grade II listed building.. It has taken us 10 years to restore, and already suffers from high water levels -we have never flooded but our garden does. Our</p>	<p>Thank you for taking the time to provide your feedback on the draft Water Resource Management plan. We're sorry to hear that your garden floods. Here is a link to our webpage about flooding and who to ask for help when it happens: https://www.thameswater.co.uk/help/emergencies/sewer-flooding .</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>field would neighbour your "wetlands" and that definitely floods.</p> <p>We asked many questions at the consultation to try and understand how given the direction of flow of water, the fact that all the fields around us flood, and our desire to stay in our house -but we were constantly directed to the aesthetics - the incline slope etc.</p>	<p>With regards to the design of the reservoir and the scheme's impact on the flooding, we are at a very early stage in the process and so at the moment are unable to provide more detailed information about the impact.</p> <p>It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them. Consultation forms a central part of major development and we will consult fully with a wide range of people including the local community as we develop our plans taking their views into consideration so that we can deliver a facility which brings benefits to the community economically, socially and environmentally. The reservoir will not increase the risk of flooding in the area. It would be built on some of the existing floodplain associated with tributaries of the River Ock and therefore flood compensation measures will be included in the design to leave flood risk at a lower level than if the project hadn't taken place. In addition, the reservoir could potentially improve flood risk management in the Abingdon area, work is ongoing with the Environment Agency on this. This work will be shared in an open and transparent way when it is complete.</p>	
4933	<p>We are opposed to the reservoir: As direct neighbours, as it is extremely likely the displacement alone would cause our house to flood -noone has explained how we WONT flood. The recent advances in desalination technology should be a much more viable sustainable option. The disruption to the area will be huge -the A338 already has too many lorries - especially when the a34 has an issue. -Side note: there have been many many accidents at our location over the years. As you can see -with the right level of information and confidence in the plan -we would NOT be opposed to the reservoir but as things stand -we believe alternatives are much smarter.</p>	<p>Thank you for your response. We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. WRSE considered over 2,000 options including national and regional water transfers, desalination, recycling treated wastewater, reservoirs and catchment schemes - all are viable, potential options which could form part of an overall plan for the South East. We'll need a combination of measures to address the shortfall.</p> <p>Possible sites for desalination plants have been identified at Beckton and Crossness. In 'High' environmental destination scenarios, by 2050, there is a significant need for water in our Swindon and Oxfordshire (SWOX), Kennet Valley and Slough, Wycombe and Aylesbury (SWA) WRZs, as well as a need for an import into Southern Water's Western Area from the Thames catchment. This means that effluent reuse/water recycling or desalination options in London alone will not meet regional resource needs, and so the</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>delivery of the STT or SESRO will be required, with both potentially being needed.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA), including appraisal of the traffic and transport impacts of the scheme and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>As noted in our Gate 2 submission to RAPID, one of the key aspects of the SESRO site is that it has very favourable clay geology underlying the site. This means that the material needed to construct the reservoir embankments can be 'won' on site, without the need for the import of material that might be required on other sites. It is also located very close to the main arterial trunk road network, so that construction access can be facilitated from the A34 with minimal impact. Furthermore, it is adjacent to the Great West Railway and we will continue to work closely with Network Rail to facilitate a construction freight access into the reservoir site for much of the construction material needed for the reservoir, such as sand, gravel and stone. All of these measures will contribute to our overall plan to minimise the construction and operational traffic and transport impacts from the scheme.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the</p>	



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		<p>Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p>	
4991	<p>I certainly feel that homes can be persuaded to cut their water usage. Having a water meter checking on how much you have used will certainly drive people to cut the water bill. Use just half pressure when having a shower. You hardly notice the difference while washing your body! With a full pressure so much hot water hardly touches your body it goes straight down the plug hole. What a waste of good money! Some families with children give a time limit of just mins to shower and then they have to jump out. A fantastic saving. Again just 1/2 Pressure by using a quarter turn of the tap. Water butts attached to all drain pipes will save on the cold water tap being used less often for watering the garden. Thames Water must stop water leaks! REALLY THE WORST AUTHORITY FOR NOT DOING ENOUGH FOR THE LAST 5 YEARS.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed un-meterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Better metering data for customers All household customers that have had a smart meter installed currently have access to their usage and leakage information through Thames Water online. We are actively promoting online account registration to increase the customers that can benefit from both personalised water efficiency advice and paperless billing. We are currently developing new customer</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>engagement capabilities that use smart meter consumption data to deliver proactive digital engagement for changing behaviours and enabling customer self-fixing of customer-side leakage and internal leaks.</p> <p>On the commercial user side, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access commercial property smart meter data on a live dashboard. The dashboard includes real time data showing any meter with Continuous flow, which can be used by Retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through Retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early</p>	



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		<p>stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses</p>	



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		<p>of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
4991	<p>My main concern was the sheer damage to the environment with treated sewage going into the river. Invertebrates, fish bird life, plant life would all be suffering. If we have another hot summer, -the river level drops, oxygen levels drop too - in warm water.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the environment is central to this proposal.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. The programme of studies includes the assessment of the water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm. We will do more detailed assessments, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>planning application for the scheme. For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
4996	<p>Thames water have such a poor record for their treatment of water that over 13,100 people have found it necessary to sign a petition. -The under investment that the company have made over the years whilst paying their senior executives and shareholders millions has caught them scrabbling for 'cheaper' solutions.</p> <p>The rhetoric -the water system is a 100 years old doesn't wash nor does the fact that you are blaming the lack of investment on environmental conditions. -I know that Munira Wilson has asked questions in the house about this but once again it is ignored.</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p> <p>At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>We recognise that we need to improve our track record in some areas. In March 2021 we launched our turnaround plan to improve our performance and, with one year complete, we have made progress. We have always been clear it won't be quick or easy, however, the results of the first year are encouraging despite a challenging and changing environment. We all want to see significant improvements quickly but are determined to make the needed</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>changes in a sustainable way to make a real, positive difference for our customers today and into the future.</p> <p>Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers. With regards to profits, our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year, and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	
4996	<p>I write to add my name to the thousands of people who are horrified at the thought that Thames Water are proposing to extract water from the Thames and replace it with treated effluent. There are open cases against the company being bought by Ofwat, 2 out of 5 stars -Environment agency, red rating for 12 serious pollution incidents.</p> <p>We the public do not have TRUST in Thames Water to not cause an environmental disaster which could affect the river for years to come with levels of antibiotics, hormones, microplastics the levels that are allowed to be included in effluent are banned in other countries and there is no knowledge of what long term affects these will have.</p> <p>I implore the company to relook at their proposals, look at long term solutions and not quick fixes that will affect the environment.</p>	<p>Thank you for your response to the consultation. Thames Water acknowledges that it must do more to modernise its infrastructure and rebuild trust with its customers. We've launched our updated River Health Action Plan which includes details on critical work to deliver over £1bn investment in sewers and sewage treatment works.</p> <p>We're undertaking the largest ever upgrade of the sewers and sewage treatment works in London and the Thames Valley by upgrading more than 250 of our sites.</p> <p>This commitment builds on our recent pledge to double investment in sewage related infrastructure from the previous two years which will reduce storm discharges and pollution incidents. With regards to the proposed Teddington DRA scheme, protecting and enhancing the environment is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and its many recreational users. Through consultation with these groups, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
5017	<p>Fix the leaks. Promote other ways to save water.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider</p>	



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		<p>household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	
5017	<p>No thanks to treated effluent in the river.</p> <p>Please find an alternative.</p>	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need. Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. For further information, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5050	<p>Objection to Planned Reservoir near Steventon, Oxfordshire.</p> <p>I wish to object to the Thames Water Plan for the following reasons:</p> <p>Environment: It will cause massive disruption and damage. In construction and over many years and once it exists.</p> <p>Risk: Flooding has not been assessed, nor has the risk of catastrophic inundation/ dam breach.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is</p>	



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		<p>unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p>	
5051	<p>Thirdly, the water companies have a very poor track record of preventing the release of untreated sewage into our waterways. It's great that Thames Water tracks and highlights it but it doesn't appear to be doing much to reduce it.</p> <p>As reported by i News on March 10 2023. 'Live data provided by Thames Water showed 137 treatment works had discharged partially treated sewage into rivers in the 48 hours to Friday afternoon, with 94 still actively flowing at that time.</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p> <p>At the beginning of the year we published an online map providing close to</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	
5051	<p>As a Twickenham resident and member of the Lensbury I am extremely concerned by the current proposal by Thames Water to build an abstraction plant near Teddington Weir and to replace this water with treated sewage water.</p> <p>Firstly, my family and I enjoy the river for kayaking, paddleboarding, swimming and walking our dog. My dog plays in and drinks the water. We would feel very uncomfortable doing these activities in that section of the river if the quality/source of the water changed.</p> <p>Secondly, I'm sure a concern shared by many is the impact on the wildlife in and around the river, of both the abstraction of water and replacement with treated sewage water.</p> <p>This project would be devastating for the area. You are asking the residents to sacrifice an awful lot for absolutely no benefit and I really cannot see how this is an acceptable solution.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. Prior to any scheme consents Thames Water will hold targeted engagement and consultation events about the scheme through 2023 and 2024 which will provide specific details on the design and environmental considerations. The consultation events will be an ideal opportunity for local residents to provide feedback on the scheme (as opposed to the WRMP) and shape its design prior to us submitting a</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>planning application.</p> <p>During construction and operation of a scheme we envisage there will be a nominated Thames Water liaison officer that would meet regularly with local communities where information can be shared between parties. An example of how this works is already in place at the Mogden STW where local communities meet regularly with Thames Water to share up-coming activities, concerns and developments. We envisage a similar model being in place for the Teddington DRA scheme.</p> <p>As we continue developing the scheme we will refine and provide more details around the above. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
5052	<p>c) I also object to your abject record on sewage dumping into the Thames, and find your plan to abstract water from near Teddington Lock and replace it further downstream with treated sewage, completely unacceptable.</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p> <p>At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>Specifically in relation to the Teddington direct River Abstraction scheme, the scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged. There is no route for raw or untreated sewage to be discharged in the River Thames, upstream of Teddington Weir.</p>	
5052	<p>a) I agree with you that we, your customers, need to be more efficient and less wasteful in our use of water.</p> <p>b) However; you Thames Water more than any of your customers, are woefully wasteful of water, and have been for decades ! I could find no clear plan in your draft plan for reducing leaks, and yet you allow millions of litres a year to leak from your network of pipes. I object to any plan that does not, in a very significant way, address leakages.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and it's relationship to household demand Reducing leakage is a priority for us. Right now, around 24% of the water we treat / put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p>	
5052	<p>d) A new reservoir is probably a good idea, but it is long overdue. I would expect it to be built with appropriate environmental concerns for the area within which it is to be constructed. I would also expect Defra, or the appropriate watchdog body, to ensure that we, your customers, are not overcharged for this investment, given the dividends you have paid out to your shareholders since privatisation.</p>	<p>Thank you for your response. It has been hard to bring forward new infrastructure in the UK over the past few decades. In 2018 the National Infrastructure Commission and regulators recognised that a more strategic approach was required to prove the need for new infrastructure. Ofwat, Environment Agency and the Drinking Water Inspectorate have joined forces, into an alliance known as RAPID, to implement a national approach to planning our critical water resources. Not having enough water to go around would cost London's economy alone around £500 million each day and if we</p>	No changes requested.



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		<p>were in a situation where severe water restrictions were introduced they would last for weeks or months, not days, hence the importance of forward planning</p> <p>A reservoir would become part of the landscape. The perception of it will vary. Reservoirs can become well-liked assets to their regions and the health and wellbeing of local communities. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for the local area and wider Oxfordshire. We will deliver best value for customers through incorporating learning from the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are in it for the long -term, they are putting money into the business not taking it out. In June 2022, we announced our revised business plan for 2020 to 2025, increasing our expenditure to £11.5 billion compared to the £9.6 billion in our final determination, supported by new equity underwritten by our shareholders, to prioritise investment in improving service for customers and to protect the environment. Our shareholders will subscribe an initial £500 million of new equity this financial year, and they have also agreed to provide a further £750 million of equity contributions during this regulatory period, subject to certain conditions. Our shareholders have not taken a dividend for six years (since 2017)</p>	
5057	<p>I wish to add my support for using a restored Stroudwater/Thames & Severn Canal to transfer raw water from the River Severn catchment to overcome the deficit that already exists in the upper and mid River Thames area.</p> <p>I am aware that some proposals to overcome this situation exist, principal among these being a new reservoir in the Abingdon area. I am aware, too, that this reservoir project has been proposed - for many years, but there is, and continues to be, much opposition to it from environmentalists and the ordinary public, particularly landowners.</p> <p>The Thames & Severn Canal bridges these two catchments. I accept that much</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>work to restore it is required, but its restoration would find far more favour with those opposed to the reservoir scheme. Its return to use will delight many sectors of the public. -The hydraulic features that will be required to make it operate for both canal users and water companies can be included in restoration works from the outset. There will be opportunities to open new marinas for the inland boating community. It will complement the Cotswold Water Park in great measure; and the building of homes that complement that environment.</p> <p>I accept a nonwater company body would be required to be included in the operation of such a transfer operation, ie, an inland waterways input, which may cause perceived problems, but such arrangements operate within the waterways world: apparently successfully.</p> <p>To conclude, the use of the already existing canal is unlikely to cause major environmental problems, nor problems from folk who would otherwise be uprooted from their homes and farming land. It is an established line. I urge you to use it, so that it, too, can be used for its original purpose in tandem with transfer purposes. That seems to me an excellent allround deal.</p>	<p>WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5058	<p>I wish to express my total support for the proposition of using the Thames and Severn canal as a means of supplying the Thames area with as many as 300 million litres of water per day. To my mind this is an extremely sensible idea with very few arguments against, other than to want to build another reservoir on expensive land. The route is already available in almost all parts and the idea of a corridor stretching from the Severn to the London basin is a boon for wildlife, brilliant for tourism but most of all likely to be far more cost effective than other solutions. Also, if the need exists now, then it can be in operation probably long before a reservoir. One need only think of permissions which would have to be granted for a reservoir and associated pipelines.</p> <p>My vote is for the canal idea also because when I consider the Kennet and Avon canal and see how the areas it traverses have prospered and the number of boats using the canal , I'm afraid a reservoir is pretty poor return for a fantastic sum of money.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits;</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5059	<p>I object to the amount of environmental damage and wasted energy which would be involved in building a huge reservoir, which is not necessarily going to achieve the amount of water required, especially when there are other ways to solve the problem.</p> <p>Bringing water from the River Severn is a much simpler and should be adequate for the demand estimates.</p> <p>There are better ways to meet the demands, both from United Utilities and from Grand Union Canal water transfer schemes.</p> <p>Water treatment needs more funding, to ensure greater capacity, in order to avoid untreated sewage being dumped into our rivers.</p> <p>-This would also ensure that rivers can be treated and used for domestic water supplies.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5059	The demand figures are only estimated, and based on unreliable forecasts.	The forecasts of demand are estimates produced using the methods we set out within section 3. Forecasts over a 50 year planning horizon are by their very nature "unreliable" which is why we have adopted an adaptive planning approach which considers nine different future scenarios covering both high and low future demand scenarios.	Our preferred plan includes a PCC target of 110 l/h/d.
5059	- The safety and ground leakage aspects of a reservoir have yet to be proven. The disruption to the local environment and traffic (particularly on the A34) would be excessive.	The options development work undertaken for the WRMP is at a concept level only. For SESRO, this is augmented by the design work undertaken under the RAPID gated process. This work, as reported to RAPID and published in November 2022, provides details of how the SESRO options would be designed and constructed safely. Such issues will continue to be developed as the design is developed up to the submission of a future consent application including additional ground investigations, as required.	
5059	The Reservoir is a major investment designed to increase share value (as it's infrastructure) whereas spending money fixing leaks does not appear to be an increase in the assets of the company. This should not be so, as repairing a rundown and failing infrastructure should be seen as increasing its 'value'.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting, and its relationship to water supply options Reducing leakage is a priority for us. Right now, around 24% of the water we put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>In no small part this requirement is driven by the diminishing returns of leakage reductions, caused by the proportion of our leakage that will not be</p>	



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		identified via traditional leakage control or pipe replacement methods, often very small leaks.	
5060	Thames Water’s case is based on dreamt up figures for population growth in its area, which are much larger than the official national estimates.	All growth forecasts used by Thames Water have been produced by ONS or local authorities. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.	Our preferred plan includes a PCC target of 110 l/h/d.
5060	One can only assume that TW has taken this position in order to profit from destroying a large area of the Vale of White Horse, funding it from residents’ water bills over which residents would have no control. All major infrastructure projects in the UK end up massively over budget and time (Cross rail, HS2 etc), and the TW reservoir would be no exception given the immense nature of the work required. TW say they would sell water to other companies, yet the aim of the reservoir which they give is to guarantee supply in times of drought. The WRSE is probably in favour because the other companies involved would not have the worry, nor have the expense.	<p>We note your concerns in relation to the reservoir but would like to confirm that profit is not the driver. The purpose of our draft WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment. The proposed reservoir is an important part of our draft plan alongside other measures, and would provide a shared water resource to customers across the South East. The basis for the draft plan is one of best value which takes account of cost as well as other factors including resilience and environmental impacts. The investment in new water infrastructure will not benefit shareholders, the approach is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>We have listened to issues and concerns raised by the local community in relation to the reservoir and in February 2023 we published a statement of community commitments to respond to some of the issues that were commonly raised in relation to SESRO and put in writing our commitments to work with the community to develop a reservoir design that delivers opportunities for accessible recreation, leisure and education amongst other points. The full set of commitments is presented in the main report of this Statement of Response.</p> <p>In developing the WRMP24 and wider plan for the South East, a fresh and</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>objective look has been taken at the challenges facing the region and how best to solve them, looking beyond the boundaries of individual water companies to identify the options that will provide resilient supplies more efficiently and provide wider benefits. In terms of new infrastructure, desalination plants and water recycling are viable potential options which could form part of an overall plan for the south east. For further information on the scheme see our Statement of Response and revised draft WRMP. The SESRO reservoir proposal is consistently selected in investment model runs undertaken for the WRSE regional plan as a necessary and appropriate key scheme within the overall regional plan solution to the future water resources challenges that the region is facing. We have completed the required assessments to understand the environmental impacts of our water resource schemes, in line with the Environment Agency's guidelines. We consider that the schemes we have included in our plan are environmentally resilient and appropriate to include in our viable options list.</p>	
5060	<p>Thames Water should first put all its effort and resources into stopping the leaks. These lose a large fraction of the water capacity of the proposed reservoir each year. Not only are there leaks, but TW constantly pollutes rivers through inadequate sewage treatment. One wonders how on earth we could trust TW to construct a major reservoir!</p> <p>Climate change is given as another reason for a reservoir, yet even if there are bigger fluctuations in rainfall than previously experienced, hosepipe bans and not washing one's car are a much more acceptable inconvenience than a reservoir.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Thames wastewater practices</p>	



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		<p>Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business.</p> <p>Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p> <p>South East Strategic Reservoir Option (SESRO/Abingdon Reservoir) The SESRO scheme, about which you have concerns, is one part of a wider programme of resource development and demand management options. As a water storage solution, it is an important asset in the resilience against potential water shortages arising from forecast population increases and drought.</p> <p>The reservoir has the potential to offer a wide range of opportunities including creating a place that people would want to visit for their health and wellbeing, new accessible leisure and recreational facilities from walking, cycling, fishing, birdwatching and a wide range of water sports for all as well as providing opportunities to host sporting events with access to new facilities for local people. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for the local area and wider Oxfordshire.</p> <p>It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them.</p> <p>Hosepipe bans and non-essential use bans (drought measures) All water companies have a Government approved Drought Plan, which includes a robust sequence of demand reduction and customer engagement actions that are implemented according to water resource status and demand forecast. Our Drought Plan includes the use of Temporary Use Bans (hosepipe bans) and Non-Essential Use Bans (a set of further water restrictions). These measures are put in place only in periods of extreme drought, following a legal process and customer consultation period, to</p>	



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		<p>reduce the amount of additional discretionary water use (e.g. outdoor, garden), which contributes to peak demand periods. The hosepipe ban and range of other demand reduction activities are all aimed to help reduce household and business water use, protecting water availability for more essential services and the local environment.</p>	
5060	<p>It appears that Thames Water (TW) has already decided that it feels a huge 'Abingdon' reservoir is its best option, and we are only able to comment on its size! Thames Water ask us which we would favour, -a 100 Mm3or 150 -Mm3 capacity reservoir. We are in favour of NO RESERVOIR. This situation is absurd, and TW needs to reconsider its case for a reservoir.</p> <p>We have not followed any details of just how TW would treat such a massive intrusion into the life of local residents. Ten years of construction misery seems to be unavoidable, with road diversions, traffic holdups, noise and pollution very likely. The carbon cost of the construction would be enormous. We question how such a huge reservoir would be filled from a slowmoving river Thames. Back of the envelope calculations suggest it would take seven years unless a high proportion of the river were diverted. This would cause less flow lower down river from which water might be taken.</p> <p>If it were to be built, a reservoir would present very serious flood problems in the Vale, since flood plains would be lost. The water table is already very high in the area. One also questions how leakproof the containment would be. The huge area of base and walls would have to be made absolutely leaktight or a major disaster could follow. It would always be a threat.</p> <p>In our opinion other sources of water replenishment must be developed as a priority, over and before a reservoir. In particular transfer from the River Severn should be the first course of action. This cannot be as costly as building an enormous reservoir and would provide a constant supply. Other water sources should be developed – desalination, efficient sewage treatment.</p> <p>We object to such a huge threat to the environment of an area of the Vale which is close to the beautiful Downs conservation area. In future the country will need</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>to grow much more of our own food, and the proposed reservoir area should remain in agricultural use.</p>	<p>reservoir over other schemes.</p> <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p>	



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		<p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p>	



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		<p>- Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³</p> <p>- 121 earth embankment dams with a crest length of at least 10km</p> <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The environmental impacts of the proposals have been assessed as part of the Strategic Environmental Assessment (SEA) of the draft WRMP. This assessment allows an environmental 'metric' of positive benefits and negative impacts to be generated, which is used to enable comparison with other options when deriving the best value plan. The more detailed environmental appraisal, which has been used to inform the SEA, forms part of our Gate 2 submission to RAPID and Supporting Documents B1 to B7 provide details of the environmental appraisal of the SESRO options, all of which are available on Thames Water's website (https://www.thameswater.co.uk/about-us/regulation/strategic-water-resource-solutions). Therefore, the potential environmental impacts have been taken into account in weighing up the pros and cons of the SESRO options compared to alternatives. We have started to explore how some of the most significant impacts might be managed and mitigated when the scheme is designed, as part of our Gate 2 submission to RAPID. For example, section 3.4 of our main report to RAPID (and figure 3.1) explain some of the key landscape issues and how we have taken these into account in deriving an indicative landscape master plan for the 150 Mm³ SESRO option. We will continue to develop our thinking on these issues, in close liaison with the local community as the design of the scheme develops. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p>	



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5063	<p>I'm writing to support the proposal for the Cotswold Canals SevernThames Transfer (CCSTT) option which in my view is the best option for the following reasons:</p> <p>The proposed reservoir near Abingdon will cause significant damage to the landscape and, if it succeeds in overcoming the strenuous opposition from local residents and environmental groups, will require many years to construct. Given the anticipated shortage of water supplies due to climate change and the uncertainty of measures to reduce the demand for water in the SouthEast in the shorter term, it makes no sense to build the long lead time Abingdon Reservoir before the shorter lead time SevernThames Transfer scheme. -The CCSTT scheme should be delivered as soon as possible to reduce risk of water shortages and potentially reduce environmental abstraction.</p> <p>The proposed pipeline option for the SevernThames Transfer has not the environmental benefit of the restored canal, providing habitats for many diverse species and mitigating the effects of climate change. -A buried pipeline has - nothing to offer by way of environmental or Natural Capital gain compared with using the canal; the same goes for water reuse plants and other schemes for water resource management. -In this respect restoring the Cotswold Canals could act as mitigation or biodiversity offsetting for other water resource measures.</p> <p>also the pipeline option doesn't appear to have taken into account the financial value of the restored Cotswold Canals in terms of social amenity, public wellbeing and the local economy. -The recent IWA Waterways for Today Report estimates that the financial value of the social and economic benefits of restoring the canal could amount to about £800million over the next 80 years, a significant factor in comparing the costtobenefit ratios of the various proposed schemes.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
5064	<p>We are aware that Thames Water often breaks the legal standards and gets fined for it.</p>	<p>Thank you for your response. Your comment has been noted.</p>	<p>We have provided information in response to your comments, there are no changes to the draft</p>



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			plan as a result of your representation.
5064	<p>And, on the subject of standards, the Environment Agency should set standards for you that reflect good practice, not the horrible discharges we currently experience.</p> <p>If you break the standards set for you, we want to be able to find out immediately, so that we can phone you and ask you to stop pumping until the defect is sorted out.</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders. We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p> <p>The Environment Agency regulates waste water treatment works (WWTW) by assessing the quality of the waste water they discharge against set compliance limits. The level of treatment and monitoring that's required is based on the population the WWTW serves and where the sewage is discharged. Government guidance is available here https://www.gov.uk/government/publications/waste-water-treatment-works-treatment-monitoring-and-compliance-limits/waste-water-treatment-works-treatment-monitoring-and-compliance-limits.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
5064	By the way, sometimes the Thames here flows inland towards Kingston; you should know that already.	Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of	Our demand management and leakage reduction proposals have



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	<p>Do please get on with fixing the leaks in your pipes – that would be so much nicer!</p>	<p>Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next</p>	<p>been extended in our revised draft plan.</p>



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		<p>2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5064	<p>We are concerned about your plan to extract water from the Thames just a few hundred metres from our my home, and replace it with treated effluent from Mogden. We don't just live here, but use the River Thames as our main source of sport and entertainment.</p> <p>If you are going to proceed with this controversial plan, please put the effluent into the river discreetly, under the water like at Isleworth Ait.</p> <p>We don't want any kind of structure on the riverbank to remind us of what's going on. And please make the fish and eel screen as tiny as possible – your current plans for a huge structure would deface what's currently a nice riverside.</p> <p>We do not want the Teddington scheme to operate like that, so please let's have publicly-available information about what you're actually doing.</p> <p>I know you have to plan for climate change, but your plans should be more considerate of the people and creatures that live here.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community, residents like yourself and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river. In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. Prior to any scheme consents Thames Water will hold targeted engagement and consultation events about the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>scheme through 2023 and 2024 which will provide specific details on the design and environmental considerations. The consultation events will be an ideal opportunity for local residents to provide feedback on the scheme (as opposed to the WRMP) and shape its design, such as your suggestion of a submerged outfall, prior to us submitting a planning application.</p> <p>During construction and operation of a scheme we envisage there will be a nominated Thames Water liaison officer that would meet regularly with local communities where information can be shared between parties. An example of how this works is already in place at the Mogden STW where local communities meet regularly with Thames Water to share up-coming activities, concerns and developments. We envisage a similar model being in place for the Teddington DRA scheme.</p> <p>As we continue developing the scheme we will refine and provide more details around the above. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
5065	<p>Use winwin natural solutions: using wildlife promoting nature based solutions that can help tackle flooding and pollution, and can replenish water supplies for the future.</p>	<p>While there exists a broad body of evidence regarding the feasibility of using nature-based solutions in flood mitigation, more limited evidence exists to suggest that nature-based solutions can 'hold water back' in catchments to the degree which would be required to offset drought risk. We have considered a range of catchment options across our supply area, and have ascertained those nature-based solutions which we can be confident will deliver supply benefits.</p> <p>In AMP8 we will consider nature-based solutions in more detail, as part of the Water Industry National Environment Programme (WINEP), with a particular focus on establishing where nature-based solutions may mitigate the environmental need for abstraction licence reductions.</p> <p>In addition, it is important to note that the Water Resources Management Plan is not the only area of Thames Water which is considering the adoption of nature-based solutions, with multiple workstreams across the company considering and funding them to solve different problems. Different workstreams considering nature-based solutions have different drivers, and</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>



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		<p>we map catchment vulnerabilities to understand where interventions will have the biggest impact. Drivers include water quality, improving urban drainage, river restoration and community engagement and education. Many of these programmes have recently been expanded to cover more of our supply area, built on a solid foundation of working over a number of years with community stakeholders. We know that we have further work to do to integrate our view of drivers for and benefits of NBS, and this is something that we will continue to do in future planning cycles.</p>	
5065	<p>We urge that the Plan: Prioritise nature: making it a top organisational priority to ensure there is enough water in our rivers to support healthy and abundant wildlife. It is vital to the health of the whole environment, and thus to us all, that we bring our local waters back to health.</p>	<p>thank you for your response. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. We have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife.</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>
5065	<p>Banbury Community Action Group (BCAG) and Wild Banbury volunteers are concerned about the impact of water overuse on the rivers and water courses in Banbury and beyond. We note that your draft Water Resources Management Plan recognises this threat but feel that it should go further in its ambitions to resolve it. We ask that the plan commit to greater action to tackle excess use and its causes. It is vital that this is done, to ensure that future water supplies are sustainable both in the face of a changing climate and a growing population. It is vital, too, that our water supplies be secured with minimal impact upon our streams, rivers, lakes and wetlands.</p> <p>We add our voice to those who call for more sustainable water use. To ensure this, we urge that the Plan Reduce water usage: facilitating households and businesses to save water; supporting vulnerable customers; significantly reducing leakage. we believe there should be greater ambition on ending the harm from overuse, and that we would expect the regional plan to set a solid framework for that.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>use.</p> <p>Non-Household (commercial) water use The government recently introduced national water targets, of which a 9% reduction in business water demand is required by 2038. This new demand reduction target agenda will drive water efficiency across all business sectors, with water companies playing a key role. Thames Water is leading on smart metering rollout on business properties and water consumption data services for the UK. We have worked closely with stakeholders including MOSL (Market Operator Services Limited) and OFWAT. We have shared our insights with wholesalers and retailers and have fed into the metering committee to help build the UK NHH metering strategy. We are committed to rolling out smart meters to all of our NHH customers and have already installed smart meters to approximately 18%. We plan to proactively replace all meters (small, medium and large) for smart when they reach the end of their asset life and will reach around 75% smart meter penetration by the end of AMP8 (2029-30). Our programme aligns to Option 1 of MOSL's Strategic Panel UK Metering strategy to roll out smart AMI meters to all meter sizes. In addition to this, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access NHH smart meter data on a live dashboard. The dashboard includes real time data showing any meter with continuous flow, which can be used by retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix. Our plan includes continued delivery of Smarter Business Visits to help install water saving devices and reduce wastage (fixing leaky loos, urinals etc), and targeting based on smart meter data. We will clarify our NHH plans in the final WRMP up front to highlight the scale of our programme.</p> <p>Support of Vulnerable Customers</p>	



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		<p>We are very aware that some of our customers are more vulnerable to large scale changes in water use. When discussing policies such as tariffing and non-essential use bans, we need to make sure that these customers are not mistreated, and that everyone has access to the water that they need. We currently maintain a priority services register of customers who may require more support, and we are going to continue maintaining this into the foreseeable future.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	



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		<p>the summer drought. To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5067	I agree with everything in the Kew Society representation to you.	Your comment has been noted.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
5069	<p>Absolutely disgusted at the decision to put treated sewage into our stretch of the thames at teddington. Find an alternative and make sure a full health impact assessment including to human health and biodiversity / ecology of the river all included</p> <p>Shameful from thames water. I strongly object</p>	<p>"Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water



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		<p>there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. Prior to any scheme consents Thames Water will hold targeted engagement and consultation events about the scheme through 2023 and 2024 which will provide specific details on the design and environmental considerations. The consultation events will be an ideal opportunity for local residents to provide feedback on the scheme (as opposed to the WRMP) and shape its design prior to us submitting a planning application.</p> <p>During construction and operation of a scheme we envisage there will be a nominated Thames Water liaison officer that would meet regularly with local communities where information can be shared between parties. An example of how this works is already in place at the Mogden STW where local communities meet regularly with Thames Water to share up-coming activities, concerns and developments. We envisage a similar model being in place for the Teddington DRA scheme.</p> <p>As we continue developing the scheme we will refine and provide more details around the above. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Resource Management Plan while further work is undertaken.</p>
5071	<p>I am writing to express my support for the Cotswold Canals SevernThames Transfer option. By using an existing restored canal, this option does not result in destruction of the countryside. There is the added benefit of contributing to the restoration of the ThamesSevern canal link, with all the wellbeing benefits for local populations and visitors that this would bring, as well as the benefits to wildlife. As a resident of Stroud I have experienced the benefits of canal restoration first hand, and feel that this is a scheme which balances cost,</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>environmental factors and overall value to society. I do hope that you will choose to adopt this farsighted and innovative scheme.</p>	<p>transfer would be best delivered by a direct pipeline. For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5072	<p>No thanks to the plans for an extraction plant at Teddington and the release of treated effluent in to the river.</p> <p>Please find alternatives.</p>	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need. Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. For further information, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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5073	<p>The Society fully recognizes that an evergrowing population will create a greater demand for water supplies. Coupled with climate change and an increasing risk of drought, water companies must plan to conserve and provide an adequate water supply to their customers in the years ahead</p>	<p>We agree water companies must plan ahead to ensure a secure water supply for customers and Thames Water aims to achieve this through a dual track approach to both supply and demand enhancements.</p>	<p>Our preferred plan includes a PCC target of 110 l/h/d.</p>
5073	<p>2/ Discharge of Raw Sewage into the River Thames The frequency of the discharge of raw sewage into the river by Thames Water contradicts the statement in the Plan about having a positive impact on society and the natural environment. The frequent use of “storm overflow”, discharging untreated effluent into the river either in periods of heavy rainfall or at other times when the treatment plants are overcapacity or have faults, is incompatible and totally unacceptable to Teddington residents because of the environmental damage. The Environment Agency “EA” as the environmental regulator have detailed two major incidents of untreated effluent discharges from Mogden Lane Sewage Treatment Plant “STP” in the last 6 months and have recorded this in their reporting. Our view is that such incidents are unacceptable and remedial action should have been taken to prevent these occurrences a long time ago. - These instances do not in any way reassure the Society of the ability of Thames Water to manage a proposed input of treated wastewater to the Thames as an option in the Plan in the Teddington area. The alternatives to prevent storm water discharge are well known and the Society will not comment on what seems an obvious target which is to eliminate them altogether and therefore enhance Thames Water’s claim to be enhancing the environment. The frequent discharges reduce confidence in Thames Water management and make it extremely difficult to convince anyone that the plans for managing future water supply and resources are being drafted by an organization that has will and ability to deliver them in an environmental and sustainable way. To paraphrase a previous judgement against Thames Water – it should not be more cost effective for an organization to pay a fine for breach of the law, than to resolve the problem that caused the breach of law in the first place. An equal priority should be the provision of safeguards and infrastructure to prevent the discharge of raw untreated, or partially treated wastewater into the</p>	<p>The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance.</p> <p>Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. Upgrading the Mogden Sewage Treatment Works site will reduce the number of storm discharges which will have a significant beneficial impact on the river. Our overall aim is to reduce the total annual duration of discharges by 50% by 2030 compared to a 2020 baseline, with an 80% reduction in discharges in particularly sensitive catchments.</p> <p>At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region, the transparency of information is vital if we are to start to rebuild trust with local communities.</p> <p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>river and these measures must be proven to be adequate to meet the stress that the system will be put under in changing climate conditions. Again, this should be a first step in Thames Water proving to consumers and local communities that the environmental aims of Thames Water are being taken seriously and that the management of the company has got a grip preventing these incidents.</p>	<p>remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p> <p>Notwithstanding the comments above, one of the drivers of the WRMP is to improve the environment, and in the draft WRMP we set out our ambition to reduce unsustainable abstraction from water courses across our area in order to improve and protect the environment.</p>	
5073	<p>Leakage We believe the options proposed are too heavily weighted on supplying demand and there is insufficient emphasis on managing and reducing demand through</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of</p>	<p>Our demand management and leakage reduction proposals have</p>



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	<p>reduction in leakage and consumer education and incentives. The Thames Water website states that 24 % of the water pumped into the supply system is lost because of leakage. According to the Plan this is three times the volume of water that Thames Water proposes to take out of the Thames at Teddington, replacing it with treated water from the Mogden Lane STP. The Society accepts that accidents and weather conditions can cause leaks and that some leaks are from customer infrastructure. It seems unacceptable that this volume of loss can continue. With reference to Thames Water aim to enhance the environment it must be a priority for the company to reduced total leakage by far more than the targets outlined in the Plan and elsewhere. The presumption is that there is not only a loss of water but also of the energy that is required to keep it under pressure prior to when it is lost to leaks. The consumer currently pays for the water treatment and energy lost by leakage in the charges levied.</p> <p>The repair and prevention of leakage should be the priority for Thames Water with much more ambitious targets set to prevent the loss of existing supplies. This should be combined with a serious campaign to educate consumers to save their money and prevent wastage of a scarce resource. These measures should be evaluated and undertaken before further consideration of the TDRA proposal.</p>	<p>Response document.</p> <p>Leakage targeting, and it's relationship to household demand Reducing leakage is a priority for us. Right now, around 24% of the water we treat / put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next</p>	<p>been extended in our revised draft plan.</p>



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		<p>2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Teddington Direct River Abstraction (DRA) The Teddington DRA scheme, about which you have concerns, allows us to capture water resource from Mogden STW that currently flows out to sea in order to increase resilience to drought for our water supplies. This scheme enables us to provide greater resilience to drought earlier than would otherwise be the case.</p> <p>The scheme is flow neutral and at the reduced volume proposed, and does not cause deterioration to water quality and ecology. The treated wastewater effluent taken from Mogden Sewage Treatment Works, would go through an additional stage of treatment (tertiary) to ensure there is no deterioration to the water quality in the river. There are many existing abstraction and discharge points between Egham and Teddington in operation that do not limit the amenity of those who use the river.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness</p>	



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		<p>about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	
5073	<p>Teddington DRA Proposals</p> <p>The members of the Society are greatly concerned with this proposal. The scheme to transfer water taken from the river upstream of Teddington Lock and transport it to the Lee Valley, combined with the input of treated wastewater from the Mogden Lane STP to balance the flow of the river appears to be an extraordinarily complex method of obtaining new supplies of water.</p> <p>As we understand the proposal the abstracted river water would be transferred to the Lee Valley via a pipeline to connect to the existing underground tunnel to North London. At the same time treated wastewater would be input into the Thames downstream of the abstraction site to balance the flow.</p> <p>We believe there are preferable alternative options to the Teddington DRA. Thames Water has stated that other proposals could meet the time objectives, however Teddington has been chosen on cost and turnround time, without evaluation of the environmental and social costs.</p> <p>There are alternative processes to provide new water and other locations which would be less invasive and provide greater volumes. Beckton desalination STP coupled with Mogden Lane water recycling scheme should be given greater weighting in the next stage decision process of the project.</p> <p>As the Beckton effluent reuse scheme would involve the use of treated wastewater from the Beckton STW to top up the Lee above the inlet for the George V Reservoir why is it not possible to add a short length of pipeline to the treated wastewater pipe from Mogden to send the treated wastewater North to the Lee to supplement the supply there rather than river water from the Teddington area? If the use of waste water from Beckton is good enough to provide a water source for the Lee reservoirs it should be possible to send the treated Mogden wastewater rather than river water to ensure a sufficient volume</p>	<p>Thank you for your response to the consultation and for raising your concerns, which are noted.</p> <p>Alternative options have been assessed thoroughly. WRSE has considered over 2,000 options including water transfers, desalination, reusing treated wastewater, reservoirs and catchment schemes - all are viable, potential options which could form part of an overall plan for the South East.</p> <p>Our 'best value' plan considers environmental, social and economic needs while still balancing supply and demand for water. For example, in the WRSE regional plan, we considered not only cost but also the wider benefits the plan could provide to you and the environment. We covered everything from boosting biodiversity and offsetting carbon to increasing our resilience to a range of risks, including droughts. We've worked closely with customers and stakeholders to develop the best value objectives and criteria for this draft WRMP24.</p> <p>The Teddington scheme involves building a new tertiary treatment plant (TTP) at Mogden STW that would provide a higher quality of water than many of the existing discharges owing to utilising the latest treatment technology and meeting the latest environmental standards. The EA will set the discharge standards to protect the quality of the river water and we will need to comply with these through the additional treatment that the scheme proposes.</p> <p>The treatment of sewage and discharge of highly treated wastewater back</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>of water is sent for treatment? Surely direct transfer would be less environmentally risky to the Thames and possibly less costly to implement.</p> <p>The Teddington DRA proposal, for abstraction of river water and input of treated wastewater, seems to be unnecessarily complex and contradictory to schemes planned for other areas of London. The proposal should not be progressed because it has been selected without consideration of the environment and social cost. We believe it would have a harmful effect on the Teddington stretch of the Thames in terms of river quality its environment biodiversity and usage. Further it raises major concern about the environmental consequences of any incidents when the system is under stress, especially regarding the proposed STP output in the area.</p> <p>There are alternative processes to provide new water and other locations which could be less invasive and provide greater quantities such as the Beckton Desalination / Mogden water recycling scheme. These proposals should be given greater weighting in the next stage decision process.</p>	<p>into rivers occurs throughout the country. Upstream of Teddington Weir numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving.</p> <p>In our current plan, any discharge from Mogden STW direct in to the TLT or reservoirs would require full Advanced Water Treatment (AWT). The additional treatment would need space for a new treatment plant, which isn't available at Mogden STW, and we'd therefore need to buy additional land, which would increase the overall environmental impact and cost. In addition, AWT processes are more energy and resource intensive, increasing the carbon footprint, and as per the WRSE assessments, don't reflect best value to our customers when compared to the Teddington DRA scheme.</p> <p>Schemes that further treat the Mogden recycled effluent are represented in the plan by the Mogden and Beckton Recycling schemes. These two schemes have been looked at as part of the plan but have been shown to be more than 2 to 3 times more expensive for equivalent sized schemes. The Advanced Water Treatment Plant options have a far greater environmental and carbon footprint than the Teddington DRA option, so are not selected as best value in the WRSE regional plan when measured on all metrics.</p> <p>Protecting and enhancing the environment is central to the Teddington DRA proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity, and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>A Water Quality Assessment has been completed which concluded that the scheme will have a negligible impact on the majority of WFD chemicals, EQSD chemicals and Olfactory water quality. There are some WQ</p>	



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		parameters which require further assessment to understand the level of additional treatment that might be required to ensure that the discharge water quality is appropriate. This work is still underway.	
5074	Having attended the online consultation and as a family of local river users, I would like to oppose treated effluent being pumped into the river - please find an alternative.	Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need. Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment.	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5075	<p>It has already been admitted that a quarter of all water in Thames Water pipes is lost through leakage. The Thames Valley leakage reduction proposal of only 27% is not good enough and does not meet Government targets.</p> <p>The assumption that people in the Thames Valley will not reduce their domestic water consumption but will in fact use 121 litres per person, more than anywhere else in the country seems extreme.</p> <p>I believe that if you reduce leakage to meet Government targets, meet the target to reduce usage to 110 litres per day or build the pipeline from the Severn now, you would NOT need to build a very expensive and unnecessary reservoir.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end</p>	



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		<p>performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Water transfers from other companies Our plan includes regional transfers, forming key elements of an emerging water grid.</p> <p>South East Strategic Reservoir Option (SESRO/Abingdon Reservoir) The SESRO scheme, about which you have concerns, is one part of a wider programme of resource development and demand management options. As a water storage solution, it is an important asset in the resilience against potential water shortages arising from forecast population increases and drought.</p> <p>The reservoir has the potential to offer a wide range of opportunities including creating a place that people would want to visit for their health and wellbeing, new accessible leisure and recreational facilities from walking, cycling, fishing, birdwatching and a wide range of water sports for all as well as providing opportunities to host sporting events with access to new facilities for local people. If the reservoir is taken forwards, we would work with stakeholders and the local community to deliver the best project for</p>	



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		<p>the local area and wider Oxfordshire. It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them.</p>	
5075	<p>I am writing to strongly oppose the idea of a reservoir being built between Hanney, Steventon, Drayton and Marcham.</p> <p>The pipeline from the River Severn would be much more adaptable to changing demands.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	
5079	<p>I understand that that the Cotswold Canals SevernThames Transfer has not be considered in the Thames Water Water Resources Management Plan. I wish to express my concern regarding this omission and stress my support for making the Cotswold Canals SevernThames Transfer a critical component in the Plan.</p> <p>In expressing my support for using the Cotswold Canals for SevernThames water transfer, I pull on my professional experience and the need, as expressed by the Institution of Civil Engineers, for infrastructure projects to minimize environmental impacts, and to provide social benefits.</p> <p>Given the historical opposition to a large reservoir in the Abingdon area, I find it impossible to envisage the proposed reservoir being anywhere near completion on the required times scale, assuming it can even get approval. This leads one to ask:</p> <p>Why was the Abingdon Reservoir even considered as the first phase of the project, if at all? Clearly, given the high level of public support for using the Cotswold Canals to affect water transfer, and the anticipated short construction time line to bring them</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>on stream, why is the Cotswold Canals option not being given a much higher priority?</p> <p>The arguments in favour of the Cotswold Canals option for water transfer are:</p> <ul style="list-style-type: none"> • The Canals provide an existing alignment and right of way, albeit in places infilled and in private ownership, to affect water transfer. Consequently, land acquisition, disruption and environmental impacts would be significantly less than that involved in the construction of a water transfer pipeline through the heart of the Cotswolds, England’s largest area of outstanding natural beauty and shortly, I understand, to be designated as a National Park. • Land acquisition, disruption and environmental impacts for the Canals option would certainly be significantly less than that required to construct a large reservoir in Oxfordshire. • The current restoration of the Canals in the Stroud area has received almost universal public support. It is anticipated that public support for using the Canals for water transfer would be similarly high, and any public opposition would be certainly less than that focused on a large reservoir option. • Given the imminent problems of water supply in the Southeast, the use of the Cotswold Canals to affect water transfer offers a solution to this problem on a much shorter (immediate) timeline than any reservoir options could offer. <p>Accordingly, it should be given the highest priority and moved to the front of the construction schedule.</p> <p>The Cotswold Canals Severn Thames Transfer provides an unprecedented opportunity to construct a critical piece of infrastructure that will provide enormous natural and social capital.</p> <p>Canals provide valuable services such as recreation -(e.g. -canal trails), flood management, amenity, biodiversity and even provide a “natural health service” offering an opportunity for people to improve health and wellbeing through contact with the natural environment. As well as this, waterways offer trafficfree, level walking routes.</p>	<p>levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>(https://www.rtpi.org.uk/media/5355/naturalcapitalthinkpiece.pdf)</p> <p>The economic impact of the restoration of only some six miles of the Canals through Stroud has brought an estimated £150 million worth of regeneration to the area. Once the currently restored section of the Canals is connected to the national Canal network within the next few years, this economic benefit will increase. While the eastern section of the Canals is through a less populated area. it is anticipated that the natural and social capital arising from use of the Canals for water transfer would be enormous. Not only would the communities of Lechlade, Cricklade, South Cerney (Cotswold Water Park) and Cirencester benefit economically, but the Canals would provide a wonderful recreational trail and “natural health service” enabling people to access the heart of the Cotswolds. The use of the Canals for water transfer would also enable an amazing piece of England’s industrial and engineering heritage, the Sapperton Canal Tunnel, to be used and preserved.</p> <p>The use of the Cotswold Canals for SevernThames water transfer has the potential to supply large volumes of water relatively quickly (within the next decade), cost effectively, with minimal surface disruption and environmental impact. It also has the potential to provide considerable natural and social capital, and has significant public support.</p>		



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5079	<p>The Cotswold Canals have not been considered to be the Best Value Option for water transfer compared to the buried pipeline across the Cotswolds. In making this comparison, a social and natural capital value of £80 million has been attributed to the Canals over the 80year life of the project. Taking a very simplistic approach, Stroud District Council has attributed £150 million of regeneration value to the restoration of the five miles of the Stroudwater Canal from Stonehouse to Thrupp over the past 20 years. This would equate to a benefit of £1.5 million/mile/year. If a significantly reduced value of £0.3 million/mile/year is applied to the predominantly rural 20 miles of canal from Sapperton to Inglesham over an eightyyear period, a natural benefit of £480 million is calculated. Furthermore, if data from the recent IWA Waterways study is used, a social and natural benefit of £800 million is calculated. For whatever reason, it would appear that the consultants are choosing to dramatically undervalue (or ignore) the social and natural capital of the Canals option, with the result that it is not the preferred option.</p>	<p>The Severn-Thames transfer via canal has been considered in our plan, but does not form part of the proposed solution at this time.</p> <p>We are in regular engagement with the canal groups so the option is reflected appropriately and the option is part of the Strategic Regional Options gated development process overseen by the regulatory alliance, RAPID.</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.</p>
5079	<p>I just wanted to say that I object to your proposal to take water out of the river at Teddington and to replace it with treated effluent</p> <p>Please try and find an alternative ... for example fixing existing leaks</p>	<p>Thank you for your response to the consultation. Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need. Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water</p>



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		<p>River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. In response to your query about fixing leaks, we are continuously tackling leakage on our network. Within the Thames Water network, Thames Water's networks have over 20,000 miles (about 32186.88 km) of water pipes supplying water to customers in London and over to the Cotswolds. We need to invest to reduce the amount of water that we lose through leaks, both from our pipes and also our customers' pipes. We have committed to halve the amount of water we lose through leaks by 2050, this is a challenging and ambitious target. Tackling leakage will not solve the water challenge we face on its own, we also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water. Much of our water network is under London and therefore very disruptive to the population and businesses if we were to dig up too much of it at once. For further information please visit, https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Resource Management Plan while further work is undertaken.</p>
5080	<p>Go for 150 Mm3 at the outset. It provides valuable extra capacity, capability and resilience for the same cost & impact as the 100 Mm3 option = more security and flexibility in an increasingly challenging and uncertain near future.</p> <p>On the best value criteria – presume it should state to reduce environmental disbenefits</p> <p>Q6 It has balance, and ambition. And it's well linked-up to neighbouring company plans, and to regional plans and the national plan. Progress.</p>	<p>Thank you for your comments on reservoir size and the best value plan as a whole.</p> <p>We have collated and summarised responses to Q4 (reservoir size) and Q6 (BVP) in the Statement of Response.</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.</p>
5080	<p>Drought volatility under a changing climate is my chief concern. I'd counsel deep analysis of the capability limits of the plan.</p>	<p>Thank you for your comment. We agree that the impacts of climate change are a primary concern. For this round of planning, the Water Resources Planning Guideline supplementary guidance required the adoption of a 'perturbation factor' approach in assessing climate change impacts, but we see a need to move beyond this in WRMP29.</p>	<p>We have amended Appendix U of our WRMP between dWRMP and rdWRMP, but have not made substantive changes to our methods as our consideration is that they align with the requirements of the water resources planning guideline.</p>



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5080	<p>Environmental ambition: It was noted that we'll adapt our approach as we learn more. The consultee requested confirmation that we'll do this without reducing our aims.</p>	<p>Thank you for your response. We don't know exactly what the future will bring, so our plan is adaptive. We'll monitor the future and adjust our plan accordingly but investing now will mean we can: cope with the changing climate; leave around 20% more water in the environment around us and support growth in our communities and our businesses.</p> <p>Our proposal to adapt our approach as we learn more means that we can base our plans on sound science with the best informed understanding of abstraction impacts. This means we will know where investment is definitely needed to address the adverse impacts of abstraction and avoid unnecessary investment in cases where abstraction reduction would deliver no environmental improvement.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
5080	<p>Our economy: The source of the economic impact of severe water restrictions was requested "Not having enough water to go around would cost London's economy alone around £500 million each day</p> <p>This hinges on whether the Govt's target is a supply area target for each & every water company of 115 lhd, or a national average of 115 lhd. Analysis of area-specific characteristics likely to make achievement of 115 lhd difficult (or implausible, even) for companies X, Y, Z might be used to define (& defend) agreeable values for individual companies. This harks back to the 'London is different' assertion of yesteryear, I know, but there are grounds for justifying a 'best effort' value for some companies? Give the values for each of the WRZs. Do differences between these reflect 'situational' factors, cf those between Water Cos?</p> <p>Changes and uncertainties in drought frequency, duration & intensity are big issues to factor into the long-run planning picture. Have you done what if? style analyses to enable you to define coping strategies (and their limits) for managing 'drought futures' with increasingly challenging characteristics (re their extent, duration, interval, severity, etc)? Contingency plans are always wise. The best ones are those that can be applied in multiple situations, to cover a range of shortfall needs.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>As of our revised draft plan, we will be aiming for a PCC of 110l/h/d at a company-level. This does not extend to WRZs, although WRZs-level results are presented in our WRMP data tables which are publicly available.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>The approach we have provided complies with the guidelines set out by our regulators. This approach considers the interplay between a wide range of supply and demand options, and utilises adaptive planning for a wide range of futures. This includes, as you've mentioned, what-if scenarios for our adaptive planning.</p>	
5080	<p>in relation to SESRO questioning whether in addition to water from the River Thames during periods of high river flow. It would also include contributions from the STT, if/when SESRO stocks require?</p> <p>Existing desalination plant at Beckton and the consideration of building additional plants. Questions as to the cost, utility, value, flexiness, frequency of need & use etc of the Beckton plant.... Has it been effective, and has it been VfM, so far?</p> <p>Groundwater scheme at Moulford – further information requested on the proposed scheme “ The village of Moulford is on the R bank of the Thames (W of it)? Is the scheme on the L bank too, or is it on the R bank?”</p>	<p>At the time of uploading information to the WRSE investment model it was understood that there would be no Deployable Output (DO) benefit from the STT / SESRO link, however subsequent work has shown in that there is a small DO benefit of up to 11 Ml/d, this is further reported in Gate 2 Reports and will be included in the revised draft WRMP documents.</p> <p>We have considered the development of new desalination plants as future resource options, as described in Section 7 of the WRMP. As with other options, we have considered the cost, carbon emissions, environmental, and resilience implications of the development of these schemes. While learning from operation of our existing desalination plant has informed the metrics calculated for potential new desalination options and the assumptions built in around how they should be used (for example, we have built in a minimum utilisation of 25% for desalination schemes), our consideration is that the concept of development of further desalination plants should not be significantly influenced by our experience of operating a single existing desalination plant. Different technologies and designs could be adopted in future desalination plants, desalination could become more widespread across the UK, and we could adopt different operating and maintenance regimes, and these factors could all influence how favourable desalination is as compared to other resource options. For example, some of the difficulties that we have experienced in operating the Gateway desalination plant relate to a limited supply chain which currently exists; if further desalination plants were to be developed across the UK, these supply chain issues may reduce.</p> <p>The Moulford groundwater option includes construction of an abstraction borehole in the unconfined Chalk north of Streatley, on the west bank of River Thames. Abstracted water will be treated at existing Cleeve WTW.</p>	No changes requested.



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5081	<p>I just wanted to I say that I object to your proposal to take water out of the river at Teddington and to replace it with treated effluent</p> <p>Please try and find an alternative ... for example fixing existing leaks</p>	<p>Thank you for your response to the consultation. Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need. Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. In response to your query about fixing leaks, we are continuously tackling leakage on our network. Within the Thames Water network, Thames Water's networks have over 20,000 miles (about 32186.88 km) of water pipes supplying water to customers in London and over to the Cotswolds. We need to invest to reduce the amount of water that we lose through leaks, both from our pipes and also our customers' pipes. We have committed to halve the amount of water we lose through leaks by 2050, this is a challenging and ambitious target. Tackling leakage will not solve the water challenge we face on its own, we also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water. Much of our water network is under London and therefore very disruptive to the population and businesses if we were to dig up too much of it at once. For further information please visit, https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5082	<p>I understand the need to extract an amount of water from the Thames to provide clean drinking water.</p> <p>However, how can we be sure the treated water from Mogden is sufficiently clean to be returned into the Thames at Teddington, given the river Thames is used extensively for leisure purposes such as rowing, swimming and paddle boarding?</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river environment and ecology is central to this proposal. In answer to your second point, the Thames Lee Tunnel (TLT) is currently used for the transfer of "raw water" for treatment into "potable" water at several Water Treatment Works (WTW) in NE London. Whilst it is technically possible to put highly treated effluent directly in to the TLT, the proposed Teddington DRA design takes a precautionary approach in line with current best</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river</p>



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	<p>And, logically, if that treated water is sufficiently clean, why can this water from Mogden not be sent direct to the Lee Valley reservoirs without the additional expense and risk of this proposal?</p>	<p>practice. Any treated effluent that would be discharged into the TLT would be re-abstracted via Lockwood reservoir for drinking water treatment so would be considered as planned direct potable reuse (DPR). The water utilised for drinking water production falls under a different set of legislation than that covering environmental discharges (The Water Supply (Water Quality) Regulations 2016 (England)). Drinking water is self-evidently treated to a far higher standard than that required by the environmental legislation covering discharges to rivers. Drinking water supply involves a risk assessment approach, documented in a Drinking Water Safety Plan (DWSP). By definition, the risk assessment methodology adopts a precautionary approach to the drinking water treatment process and assessment of new water sources. This supports our aim to continue achieving high compliance with drinking water regulations and promote schemes that will gain widespread public acceptance. The suitability of our approach to assess and mitigate risks was confirmed by Professor Jennifer Colbourne, former Chief Inspector of the Drinking Water Inspectorate as part of WRMP19.</p> <p>Teddington DRA will be required to conform with all environmental legislation as overseen by the EA. Whilst still rigorous, these permitted limits are different and distinct to those covered The Water Supply Regulations. Furthermore, existing water supply systems that are managed under a Drinking Water Safety Plan (DWSP) and are considered safe, should not be impacted by additional planned discharges in the catchment. Therefore, indirect options for reuse are considered to be a lower risk to drinking water safety, as compared to the option of direct discharge to the TLT. In line with this position, any discharge from Mogden STW direct in to the TLT would require full Advanced Water Treatment (AWT). The additional treatment would need space for a new treatment plant, which isn't available at Mogden STW and we'd therefore need to buy additional land, which would increase the overall environmental impact and cost. In addition, AWT processes are more energy and resource intensive, increasing the carbon footprint, and as per the WRSE assessments, don't reflect best value to our customers when compared to the Teddington DRA scheme.</p>	<p>users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>Schemes in East London have been looked at as part of the plan but have been shown to be more expensive for equivalent sized schemes. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it including the large number of swimmers that we are aware of. Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application.</p>	
5084	<p>We are writing to express our opposition to the Teddington Direct River Abstraction proposal which has recently been publicised. This proposal as we understand it envisages abstracting water from the Thames, sending it by pipeline to East London, and replacing the flow in the Thames with treated sewage.</p> <p>We have learned to our surprise from the limited consultation that has taken place so far that research on the water quality implications for the Thames both for wildlife and for human river users has not yet been completed. If the possible effects of such elements as hormones and microplastics are not known, it must be premature to take the risk of embarking on such a scheme with its inevitable environmental and social costs.</p> <p>We appreciate the need to find suitable ways of meeting future demand on an achievable timetable, but the response so far suggests that this option is being pursued on the basis that it is a lower cost solution rather than the one most appropriate to meet the challenge.</p>	<p>Thank you for your response to the consultation. We are the early stages of assessments but are ensuring these are thorough and continue. The development of the design and understanding of the potential impacts is following a regulatory process setup by Ofwat. At this early stage we have not yet completed a full environmental impact assessment. The dataset is still being captured through a water quality monitoring programme. Once this is completed it will include an assessment of the risk to human health. As the scheme progresses, we will continue to follow the regulatory process on health assessments and will share the initial findings through scheme engagement and consultation later in 2023.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>mitigation measures to protect the river, its wildlife and the people that use it; including the large number of swimmers that we are aware of. Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application.</p>	
5085	<p>We are writing to express our opposition to the Teddington Direct River Abstraction proposal which has recently been publicised. This proposal as we understand it envisages abstracting water from the Thames, sending it by pipeline to East London, and replacing the flow in the Thames with treated sewage.</p> <p>We have learned to our surprise from the limited consultation that has taken place so far that research on the water quality implications for the Thames both for wildlife and for human river users has not yet been completed. If the possible effects of such elements as hormones and microplastics are not known, it must be premature to take the risk of embarking on such a scheme with its inevitable environmental and social costs.</p> <p>We appreciate the need to find suitable ways of meeting future demand on an achievable timetable, but the response so far suggests that this option is being pursued on the basis that it is a lower cost solution rather than the one most appropriate to meet the challenge.</p>	<p>Thank you for your response to the consultation. We are the early stages of assessments but are ensuring these are thorough and continue. The development of the design and understanding of the potential impacts is following a regulatory process setup by Ofwat. At this early stage we have not yet completed a full environmental impact assessment. The dataset is still being captured through a water quality monitoring programme. Once this is completed it will include an assessment of the risk to human health. As the scheme progresses, we will continue to follow the regulatory process on health assessments and will share the initial findings through scheme engagement and consultation later in 2023.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it; including the large number of swimmers that we are aware of. Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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5086	<p>I'm writing to express my disgust and disappointment at the issues with treated effluent in the Thames.</p> <p>Please ensure that your investment proposals stop this action and fund alternatives so that the river can be a safe place for people and nature.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>We will do more detailed assessments through 2023 and 2024, including studies on other issues such as noise and air quality. This work will be scrutinised by the Environment Agency and other regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme. Further information on the proposed scheme can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5087	<p>Thames Water has sold off reservoirs and paid out money to shareholders instead of investing in extra climate resilience and maintaining/fixing/replacing aging water infrastructure.</p>	<p>Thames Water has only sold off service reservoirs when these were no longer needed due to changes in water distribution network. It has not sold off any storage reservoirs.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
5087	<p>Thames Water needs to fix its leaks and leave the Thames river alone.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p>	



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		<p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5088	<p>There is a petition on Change.Org protesting this plan -with 13100 people clearly objecting plus their reasons why.</p> <p>Will you be taking into account all their concerns and -responses?</p> <p>They are documented there within the petition for you to consult.</p>	<p>We are aware of the petition and have responded in detail to the concerns and issues raised in consultation responses in relation to the Teddington Direct River Abstraction scheme.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
5088	<p>The Thames is a natural reserve -following COP26 we are meant to be reviving our rivers and rewinding our lands NOT using them as a swift last minute plan in order to save costs. Shocking.</p> <p>Only when the last tree has died, the last river has been poisoned and the last fish has been caught will we realise we cannot eat money.</p> <p>I am not planning to watch on quietly if this insane proposal were -to go ahead, I will gather and galvanise a powerful army of people and children who genuinely care about our beautiful rivers and wildlife ... many of whom are skilled scientists, biologists, journalists, lawyers, teachers, politicians ... to highlight the hypocrisy of Thames Water to put a plan in place like this all the while your CEO is shouting all over the press and media about how passionate she is about revitalising our rivers and how against sewage dumping she feels. This does not all add up.</p> <p>Sarah Bentley sounds passionate and that she genuinely wants to improve our rivers .. please, please allow her to illustrate this with positive action not further detrimental proposals to the Thames.</p>	<p>We note your strong opposition to the Teddington Direct River Abstraction scheme. We have responded in detail to the concerns and issues raised in relation to the scheme. We will continue to work openly and transparently sharing information with interested stakeholders in a timely manner and the scheme will only be permitted to be progressed if it can be shown that there will be no deterioration to the environment as a result of the scheme. We are working with the Environment Agency and other bodies as we progress this work.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>



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5088	There are SO many concerned people ready to fight extremely hard against ANY form of treated effluent entering the Thames and AznY form of abstraction.	Thank you for your response to the consultation. We hope we can work with the people who are currently opposed to the scheme, to help the better understand the need and mitigations of the scheme. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river. For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5089	No, No, No!!!! Please do not dump treated or untreated effluent into the River Thames!!!! I am one of many who love the River, wildlife, boaters and I love swimming in it with a great group of people. Please do NOT do this! Why poison another river?	<p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p> <p>The scheme would be designed to be safe for swimmers and other water users. The quality of water discharged will not increase health risks for water users. Our current level of treatment aims to ensure we meet the environmental quality standards set to protect human health and the environment. We are working closely with the Environment Agency, Natural England, and the Drinking Water Inspectorate as we develop our proposals.</p>	
5090	<p>As a chartered civil engineer who was on the team that first identified the Abingdon Reservoir site for a reservoir in 1984 and who has worked on many water supply projects, I strongly urge you not to dismiss the Thames and Severn Canal option just because the engineering is more costly.</p> <p>It is widely accepted that over the last fifty or so years the development of reservoirs has added value to the nation by using them for recreation. -The precedent has been set and accepted first by the water authorities, now the water companies, and now expected by the public at large. -However, there is no reason why other infrastructure developed for water supply should not also be developed in such a manner where the secondary and tertiary benefits to the nation can be incorporated.</p> <p>A pipeline between the rivers Severn and Thames can have few, if any, secondary benefits to the population; whereas the option of using a restored Thames and Severn Canal will have very significant benefits for recreation, the local economy, and for the environment. -The public will also have the opportunity to improve their physical and mental wellbeing in the natural environment (NHS savings). -Opportunities for tourism and additional</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>employment would benefit the economy. -The resulting greater awareness and knowledge of the environment can be a key part in the sustainability of the planet. -All these benefits provided by the seed corn of the canal reinstatement. -For any SevernThames transfer scheme this is surely the “best value” option. The WRMP24 simply states that the Cotswold canal option has a higher normalised cost when compared with the Deerhurst pipeline alternative. -The more costly option for whom, and by what criteria? -When the secondary and tertiary benefits are included, the overall longterm value to the nation of this option must be more than a buried pipeline.</p> <p>In order to stand scrutiny at public enquires, or for acts of Parliament, the economic consequences of these secondary and tertiary benefits must be properly estimated. -The benefit per canalmile established in national reports and studies leads one to believe that the economic benefits of the canal option have been underestimated by a factor of 10 by Thames Water. -This places doubt on the WRMP24 statement that Thames and Severn Canal option is more costly than a buried pipeline when the best value of the option is calculated.</p> <p>I am concerned with the overall timing for the development of the Abingdon reservoir in the TW strategy. -As the Abingdon reservoir is extremely likely to generate very strong public opposition, and like many other major projects in the UK, delays are inevitable as parties challenge the reservoir proposals. -The risk of insufficient water supplies to the southeast is thus further increased.</p> <p>The SevernThames Transfer option can be implemented more quickly than the Abingdon Reservoir and is much more likely to have the support of the public. - Proceeding with the Thames and Severn Canal option before the Abingdon Reservoir can thus provide supplies to southeast England earlier and more reliably. -This is especially important should summer droughts occur sooner, or more frequently, than those in the current climate change models. Not only will economic benefits be realised earlier, but any extra capital costs of the engineering compared with the Deerhurst pipeline, could be seen as an insurance policy against delays to the Abingdon reservoir and the huge risk of London running out of water. -The actual cost of the latter scenario together with</p>	<p>longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>the economic costs, and reputational consequences, surely make the earlier construction of the Thames and Severn Canal option a very sensible risk mitigation strategy.</p> <p>I therefore urge those at TW and Defra to take a more holistic view of the SevernThames transfer using the ThamesSevern Canal because it:</p> <ul style="list-style-type: none"> · - - - - will have much better value to the nation, c.f. a pipeline. · - - - - will provide an “insurance policy” against the risks of delays to the Abingdon Reservoir, and · - - - - can provide a net gain in biodiversity. 		
5090	<p>As you doubtless know, there is a planning requirement for infrastructure projects to provide a net gain in biodiversity. -A project as large as the Abingdon Reservoir will need significant biodiversity gain. -I suggest that the Thames and Severn Canal option can contribute significantly towards this requirement and would mean a cost reduction in the biodiversity mitigation element of the Abingdon Reservoir scheme.</p>	<p>Thank you for your response. The Interconnector Options Appraisal carried out as part of the development and appraisal work for the Severn to Thames Transfer SRO concluded that the impact of constructing the canal e.g. its embankments for the canal pounds, would impact on biodiversity and therefore the opportunity to provide wider biodiversity net gain beyond its own scheme would be limited.</p> <p>Due to the nature of the SESRO scheme, both in terms of option type and the sensitive way in which concept design has been approached, the scheme itself offers many opportunities for habitat restoration and enhancement to achieve a substantial net gain onsite. This more closely follows the BNG mitigation hierarchy best practice principles, which stipulate that biodiversity loss should be remedied as close to the scheme location as possible, preferably onsite as part of scheme design.</p>	<p>No change has been made to the plan as a result of this response, for the reasons set out in our consideration.</p>
5090	<p>TW does not have the right to totally control this water with the sole and only aim of providing water at the consumers’ taps. In the water’s journey from rain to river to treatment works other “uses” of the water must be maximised for the nation as a whole.</p>	<p>We note your comment and agree that we interact with the natural water cycle and other water abstractors. We agree that it is important that Thames Water, regulators and out customers use water sustainably and protect the environment.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
5091	<p>I understand the need to extract an amount of water from the Thames to provide clean drinking water.</p>	<p>Thank you for your response to the consultation and your acknowledgement of the need driving the WRMP.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable</p>



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	<p>However, how can we be sure the treated water from Mogden is sufficiently clean to be returned into the Thames at Teddington, given the river Thames is used extensively for leisure purposes such as rowing and paddle boarding?</p> <p>And, logically, if that treated water is sufficiently clean, why can this water from Morden not be sent direct to the Lee Valley reservoirs without the additional expense and risk of this proposal?</p>	<p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate, and Port of London Authority and local authorities as we develop our proposals. The programme of studies includes the assessment of the water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing significant environmental harm. We will do more detailed assessments, including studies on other issues such as noise, air quality, recreation and health as the scheme develops.</p> <p>We appreciate the level of use of the River Thames around the Teddington area by recreational users. This recreational value and the potential risks of a DRA scheme to that value are being assessed as a dedicated topic in our assessments in 2023 and 2024.</p> <p>Transferring recycled water from Mogden STW directly to the east London reservoirs via the Thames Lee Tunnel (TLT) is technically feasible however, there are a number of challenges to overcome which makes this option less favourable and more environmental damaging than the schemes currently within the Water Resource Management Plan.</p> <p>These are,</p> <p>1) The recycled water would require full advanced treatment within or close to the Mogden STW, as there would be a limited environmental buffer before the water is treated and put into supply for our customers as drinking water. The Teddington DRA scheme would require significant new infrastructure which would require new land outside of the TW land ownership of Mogden STW to provide full treatment. This additional land required for development (somewhere between Mogden and Teddington) would significantly increase cost and increase the environmental impacts of a scheme.</p> <p>2) The existing TLT would not exclusively be used for recycled water, as recycled water would only be required at times of drought. The TLT is used to transfer raw river water from Hampton to East London. This would result in</p>	<p>new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>periodically a change in the water blend reaching the reservoirs or water treatment works which may create operational difficulties.</p> <p>3) Full advanced treatment is complex and an energy intensive process that would have higher environmental and carbon impacts when compared to the currently technologies associated with the Teddington DRA scheme.</p>	
5092	Population and water shortage exaggerated.	All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.	Our preferred plan includes a PCC target of 110 l/h/d.
5092	<p>I wish to object to the Thames Water Planned Reservoir for the following reasons:</p> <p>Need: The proposed reservoir is not needed Environment: It will cause substantial environmental damage during construction. Better Solutions: There are better alternative solutions available -water transfers, recycling and desalination which are drought resilient and more cost effective. Risk: The risk of flooding has not been fully assessed, nor has the risk of catastrophic inundation/dam breach. -Transparency: -The details of the plan are not clear and neither are the costs. Without transparency, it is impossible to accurately compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily 	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>available from the reservoir and it is more resilient to our changing climate;</p> <ul style="list-style-type: none"> • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of</p>	



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		<p>the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the</p>	



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		<p>water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>Under the requirements of the Reservoirs Act, there is an obligation on the owner and operator of a reservoir to produce an On-Site Plan prior to the reservoir being filled for the first time, which would detail breach failure and inundation extents for use by first responders and civil contingency planners. This plan is a critical part of the certification of the reservoir by the Construction Engineer, who would be appointed under the Reservoirs Act. This type of inundation information would not normally be produced ahead of DCO consent. There are no direct requirements of either the Water Resources National Policy Statement or in the 2008 Planning Act for inundation mapping to be provided for a reservoir.</p>	
5095	<p>I'd like to register my objection to this scheme on 2 grounds.</p> <ol style="list-style-type: none"> 1. The river here is used for leisure including swimming, rowing and sailing etc which makes it unsuitable. 2. I do not trust that the standard of treated sewage from Mogden will over future years have a high enough standard of cleanliness to be released here. 	<p>The DRA scheme is at a very early stage of development (essentially initial conceptual design) and assessment (risk screening). As the detail of the design is progressed over the next 12-18 months an Environmental Impact Assessment (EIA) will be completed.</p> <p>A full assessment of health and recreational use is underway, and further</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low</p>



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	<p>If the water is indeed of such good quality, why is it not being used for the water abstraction scheme?</p>	<p>engagement with river users is required. With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users, but this will be fully assessed in 2023-24.</p> <p>The recycled water discharged as part of the scheme will be of higher quality than the current quality of the River Thames, so will not deteriorate water quality. There will not be a physical pathway for storm overflows to be discharged through the new discharge. The new Tertiary Treatment Plant at Mogden STW will have live monitoring which will enable diversion of the recycled water back to the head of the plant if water quality approaches the permitted limits. This will all be required as the discharge is not a waster water discharge, and is considered as a 'Planned Discharge' by the Environment Agency so will be held to strict standards to protect the environment.</p> <p>To enable direct abstraction of recycled water for drinking water supply would require treatment by reverse osmosis (included in the current Beckton Water Recycling scheme). The Teddington DRA scheme uses tertiary treatment and discharges water downstream of abstraction points. There is insufficient room at Mogden STW to install a reverse osmosis plant, and without this treatment direct discharge to the Thames Lee Tunnel would not be permitted by the Drinking Water Inspectorate.</p>	<p>risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5096	<p>there are funds available for more costly measures in the context of the sums paid to senior executives at Thames Water (which are excessive on any view).</p>	<p>We note your comment. Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
5096	<p>Fixing leaks at greater speed and with greater efficacy than at present would assist significantly and should be the first action taken before such drastic and detrimental steps are even considered.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of</p>	<p>Our demand management and leakage reduction proposals have</p>



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		<p>Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next</p>	<p>been extended in our revised draft plan.</p>



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		<p>2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5096	<p>I would like to register my strong objection to the Teddington abstraction plan.</p> <p>It is unacceptable to remove fresh water from this fragile ecosystem to send elsewhere, and then replace it with treated effluent. There is no evidence that this will be safe for wildlife and plant life. Even subtle changes to the type and temperature of water will have significant impacts on the river life and could have unforeseen impacts. There has been such a huge amount of work to clean up the Thames and this will be a backward and short sighted step.</p> <p>Furthermore, this is a particular area of the river used by thousands of local residents (myself included) for swimming and water sports which could not continue, both due to the water quality and the abstraction plant itself which will have big impact on the local unspoilt riverbanks.</p> <p>This is unacceptable when there are alternative solutions to the lack of water. It is clear this proposal does not have the support of local residents and as such it should not be pursued.</p>	<p>The DRA scheme is at a very early stage of development (essentially initial conceptual design) and assessment (risk screening). As the detail of the design is progressed over the next 12-18 months an Environmental Impact Assessment (EIA) will be completed.</p> <p>The Teddington DRA discharge will have to be of better quality than the receiving water quality in the River Thames at Teddington, so will not deteriorate water quality. The design of the Tertiary Treatment Plant to achieve this is underway, and will be bench tested this year to provide data to evidence this. If this cannot be achieved the scheme will not go ahead.</p> <p>The assessment of temperature has shown that for a 75Ml/d scheme the temperature change is localised to the outfall, and that the majority of the channel sees less than a 1°C change.</p> <p>Water quality monitoring has been undertaken over the last three years, analysing >350 different determinands (including >50 difference PFAS) each month, including at Mogden STW which will provide the source water. Therefore the composition of the source water including PFAS is well understood, and we are now working on the design of the tertiary treatment plant to appropriately treat this (as mentioned above).</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>The modelling of velocity has shown that the scheme will not affect the velocity across the majority of the channel, but will see some localised slowing of velocity between the intake and outfall, and then some localised increased velocities local to the outfall. These velocities are currently assessed as to pose minor risk to ecology.</p> <p>With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users. A full assessment of recreation and health use is underway, and further engagement with river users is required.</p> <p>A landscape and visual assessment is underway which will identify the level of impact and identify opportunities to mitigate this.</p>	
5097	<p>In terms of enhancing the environment, providing added recreational value and causing the least disruption, linking the Severn and Thames rivers does seem the best idea. -As a solution, this would receive by far the most support and would enhance the environment.</p> <p>Looking at one of the proposals, a reservoir in Abingdon, this would face a lot of local opposition in the same way if one was proposed here. - Additionally, a big pipeline being constructed would give no benefits other than the water provision at the end. -You can't fish, or boat in a pipeline!</p> <p>Could you please ensure the linking of the Severn and Thames is identified as the best water solution to meet our future needs. -Not only would the development be an asset to us all, but from Thames Waters point of view it will enhance their reputation through the positive impact such a development will have.</p> <p>I would also like to point out the following issues in building a reservoir as a solution to getting water into the southeast:</p> <p>Loss of arable land</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>With climate change, reservoirs in the Midlands and South will be more susceptible to blue/green algae. -Please see this link re Grafham Water as an example https://m.facebook.com/GrafhamWaterPark/photos/bluegreenalgaewarningduetothewarmstillweatherwehaveseenbluegreen/2341178152641945/ -This is not such an issue with running water.</p> <p>Climate change also gives periods of intensive rainfall which will be much worse than we see now and may cause issues at a reservoir.</p> <p>I have read a reservoir solution would take far longer than enhancing the canal to move water. -Judging by the increasing noises around water shortages, the sooner we can get a solution in place the better.</p>	<p>(PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5098	<p>Thames Water needs to fix its leaks and leave the Thames river alone. Thames Water has sold off reservoirs and paid out money to shareholders instead of investing in extra climate resilience.</p> <p>Thames Water has the funds to upgrade their failing network and has decided not to do it. Let them wake up to the urgency of the climate crisis and finally account for their actions. They need to fix their mess.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes.</p> <p>We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5099	Fix the actual problems you have. Fix the leaks, fix the bad service.. fix yourselves.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our</p>	



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		<p>network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5099	<p>We don't want treated effluent in the river. Please don't ruin the river for all river users human and otherwise.</p> <p>no thanks to treated effluent in the river please find an alternative. Stop taking shitty (literally) shortcuts. Do better. Be better.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river environment and ecology is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it.</p> <p>Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application. For further information on the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
5100	<p>These operating conditions raise concerns not only about the cost effectiveness of such investments, that in theory will only be used intermittently during drought conditions, but also the water quality aspects of the scheme. The Conceptual Design Report states that the proposed river intake at Teddington would be located immediately upstream / adjacent to the new treated effluent outfall structure at Teddington Weir i.e. the location of the Mogden effluent discharge is at the most downstream reach of the non-tidal section of the R Thames and downstream of all existing raw water abstraction points.</p> <p>Ensuring The Plan Is Affordable The Draft WRMP states “We must make sure our plan is affordable. The cost of investing in our future water supply is around £13 billion - between 2025 and 2050. The majority of the investment is to ensure we can cope with our changing climate and can continue to provide a secure water supply, as well as protecting and improving the environment for the long-term. This means customers may see a gradual increase in their annual bills from 2025 to 2035”. When considering affordability issues in relation to the challenges and solutions outlined within the WRMP, it is worth bearing in mind that the rationale for the Teddington DRA to address future water deficits is a consequence of a failure by Thames Water to invest in sufficient longer-term water infrastructure to meet future water demand & supply projections. This extends to</p>	<p>Thank you for your interest in the WRMP and we note your concerns about the Teddington DRA scheme and issues of water company ownership and balance of investment.</p> <p>The primary reason for the selection of the Teddington DRA scheme is to increase drought resilience of water supplies in London. It is chosen by regional water resources modelling that seeks to balance supply and demand from 2025-2075 whilst also delivering a more secure supply and a more environmentally sustainable balance of abstraction.</p> <p>It has been hard to bring forward new infrastructure in the UK over the past few decades. In 2018 the National Infrastructure Commission and regulators recognised that a more strategic approach was required to prove the need for new infrastructure. The scheme is one of several Strategic Resource Options being investigated, overseen by the regulatory alliance, RAPID.</p> <p>We would not be able to progress schemes if they are considered to risk deterioration to water quality and ecological status. Based on outline designs and assessment the DRA scheme is a feasible option, but ongoing studies will confirm this before any planning application is made.</p> <p>The issue over water company ownership is fundamentally a matter for government. For us, the priority is ensuring the industry receives the necessary investment for customers and the environment. A concern would be, given the current pressure on the public finances and wider government priorities, whether sufficient money would be invested under a nationalised system.</p> <p>We are not here to defend the actions of previous owners but we can say our current external shareholders understand the importance of investing which</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.</p>



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	<p>the upgrading of existing infrastructure to address chronic ongoing operating issues related to untreated sewage discharges, network leakages and water efficiency. Trend data on growing populations, increasing water demand, effluent discharge, network leakage, climate change, declining groundwater resources and reductions in water supply, all leading to increasing risk of water deficits in future periods of dry weather are not new. Despite a well evidenced case for greater upfront infrastructure investments, similar to previous trading years, in 2021, Thames Water Utilities was able to generate annual revenues of around £2bn. From this revenue, it achieved profits before interest, taxes, depreciation and amortisation (EBITDA) of around £1bn (50%). These high margins have provided considerable profits for its shareholders and are significantly higher than margins in other business sectors. Despite these high margins, Thames Water is planning to fund the accumulating deficit in major infrastructure investments through “additional” water charges to end users. Ultimately delays in infrastructure expenditure result in increasing costs to end users – as the saying goes “cheapest is more expensive in the long run”. Although Thames Water claims the Teddington DRA scheme is the cheapest option (estimated £275m - £467 million), it remains an expensive reactive measure that could have been avoided had earlier investments been made in upstream supply and downstream demand measures. Fortunately, as detailed in this paper, there may be alternative more cost-effective safer options that are recommended for further</p>	<p>is why they have not taken dividends for five years and have recently committed to significant investment in the business.</p>	



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	<p>consideration within an amended draft WRMP 2024.</p> <p>Thames Water is one of the UK's largest private utility companies providing an essential public good with a large regional monopoly with little to no competition. The implications of achieving consistently high profit margins yet systemic underinvestment in infrastructure assets would indicate that the current Thames Water “business philosophy” requires significant change to make it worthwhile to invest more upfront for a better quality, affordable, longer-lasting service.</p> <p>The significance of these changes from an end-user affordability perspective should not be overlooked; TW WRMP estimates “the cost of investing in our future water supply is around £13 billion - between 2025 and 2050”. This would suggest that a phased investment of £13 billion over a 25-year period (i.e. approx. £ ½ billion per year) could be internally funded by TW on the basis that the company generates a still healthy margin of 25% (EBITDA) over the same period (not taking into account potential efficiency gains and adoption of more cost-effective solutions). This would enable the cost of infrastructure investments to be paid for without the need for “additional charges” to customers over and above normal price increases.</p> <p>Notwithstanding the above, to effect changes in the business practices of “regulated monopolies” may necessitate reforms in the water sector regulatory regime and ownership structure to ensure that they are fit for purpose. Thames Water, like other privatised utilities operating critical national</p>		



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	<p>infrastructure (CNI) has a strong competitive advantage in the provision of public goods deemed essential to the security, wellbeing and prosperity of the peoples of the greater London region. The challenge lies in ensuring an optimum balance between the commercial interests of private shareholders and the longer-term interests of its primary stakeholders (i.e. domestic and commercial end-users) in the context of climate change and ecosystem decline</p>		
5102	<p>The documents show that they are likely to cause increased water temperatures and a change in salinity. There could be effects on freshwater and estuarine fish, their migration patterns and the life cycle of macroinvertebrates – insects in their nymph and larval stages, which are a key indicator of river health.</p> <p>Even worse, no specific tests have been carried out for several persistent organic pollutants or newer pollutants, such as hormones and antibiotics that have been shown to cause irreparable changes in fish, or for “forever chemicals”, polyfluoroalkyl substances (PFAs).</p>	<p>Thank you for your response. We note your concerns, but please note Teddington DRA is a drought scheme and therefore will be used at full capacity infrequently and only in times of drought. Evidence suggests that the Teddington DRA scheme will have no significant impact on the environment. The treated wastewater effluent from Mogden STW would have an extra stage of treatment at the STW, which is required to meet environmental consents to allow the water to be discharged into the non-tidal section of the river ie above Teddington Weir.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this.</p> <p>We are following current DWI guidance on PFAS to monitor and inform our risk assessments for abstractions which we update accordingly. We will continue to follow this guidance to assess PFAS levels found, in order to categorise them to the tiers set out in the guidance and ensure the safety of our drinking water supply.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
5102	<p>Thames Water have a poor track record on the environment and on fixing leaks.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24</p>	



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		<p>hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5105	<p>The proposals for the transfer of water from the Severn to the Thames are supposed to consider the best value and not the cheapest, but the draft has dismissed the possible use of the Cotswold Canals in a few words and no justification, this appears to be making the same mistake in evaluating the benefits of an operational canal as were made with the Kennet and Avon in the 1950s which recommended abandonment. -A very valuable asset was very nearly lost due to this mistake. -</p> <p>The results of restoration have been dramatic, way beyond the evaluations made for the Heritage Lottery Application, in fact, many of the 10year targets were met in less than 2 years. There are over twice as many hire boat bases/ marinas than forecast, boat traffic over twice the forecasts, together with a very popular towpath walk. and cycle track as well as habitat provisions for water voles and other wildlife... Many jobs have been created and there have been greater than expected financial benefits to the local economy along the length of the canal; Additionally, many Engineering structures of historic value have been saved.</p> <p>A restored Thames and Severn canal will be just as successful, possibly more so, and achieve all the above benefits.</p> <p>- -The T&S will also benefit from several other advantages compared to the K&A.:</p> <p>1. A fully navigable broad canal will provide a wide beam connection between Gloucester and the Thames, avoiding the difficult tidal section between Bristol</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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	<p>and Sharpness as well as a new route for all boats to the midland canals.</p> <p>2. Provide a new" round trip".route -via the Severn, Avon, Midland canals, and the Oxford canal. -Roundtrip routes are always more popular than outandback routes with hire boaters.</p> <p>3. -Gloucester and the G&S canal will benefit directly from the additional use of the T&S canal</p> <p>4. -Canalside property values are likely to increase to a greater extent than on the K&A due to the Cotswold location.</p> <p>5. The possibility of taking some additional water from the workedout gravel pit lakes along the route.</p> <p>The operational canal will be a -benefit to everybody, not just boat users as walkers and cyclists will, in terms of numbers, far outweigh the boat traffic. What value is being put on the probable 100plus jobs created and income from boat hire, at least one new marina, and associated services; what about the financial and social value of 28 miles of a very attractive canal route that will become a popular route for Charity fundraisers? The financial values quoted are far too low and need to be reevaluated, probably doubled, and more account taken of the social and environmental benefits.</p> <p>Regarding the use of the canal for water transfer, it is capable of delivering the 300ML/day proposal but extensive work will be required at all the locks as well as considerable erosion protection which will change the character of the canal. -It will be relatively simple however to take an input of about 75ML/day(0.868 cu/m/sec) and deliver a minimum of 50ML/day to the Thames, - The work required will be mainly building bypass channels at each lock, and would d also be very much cheaper. Another possibility is to supply some water to -Swindon via a restored North Wilts Canal,</p> <p>Neither the canal nor water mains can provide all the financial, social, and environmental benefits in isolation, but a hybrid scheme could transfer 300ML/day to Culham and produce all of them -This could be achieved with an extraction point on the Severn near Gloucester, plus the Netheridge.STW discharge, with a pipeline to the canal summit at Daneway, then taken through Sapperton tunnel as part of the restoration work. (A second pipeline could be</p>	<p>government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	



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	<p>included as a safety backup). The pipeline can continue in the canal bed to the most suitable position on the summit pound where 75 ML/day could be taken from the main into a stilling basin and a weir to discharge into the canal, The pipeline then continues to -Culham.</p> <p>The 8milelong summit pound is a reservoir for the canal that would be capable of providing an emergency supply for a short period should there be a problem in the pumping main.</p> <p>The discharge to the canal can provide all the water for its operation for both the Severn and Thames sides with a control system at the Severn side to ensure that nothing but essential water for lock operation leaves the summit pound. This scheme could be operational within a few years.</p>		
5106	<p>Although treated sewage is deemed safe, tertiary treatment does not provide the same water quality as advanced water treatment.</p> <p>WE are concerned about the physical disruption of the building of the plant to the Thames Path and surrounding Ham Lands. Many will consider this an eyesore , and not just the local residents but the many people who come to visit this stretch of the river It is an area used by many people from a wide area of London.</p> <p>Thames Water claim that this proposal will be safe as it will be regulated by Ofwat. However, if there are safety breaches and fines are imposed this may not be enough to protect our river.</p>	<p>The Teddington DRA scheme proposes discharging recycled water into the freshwater section of the River Thames upstream of Teddington Weir. This would require a greater level of treatment than would be required if the water were to be discharged into the Tideway section of the River Thames, downstream of Teddington Weir. The Environment Agency would determine the discharge parameters, but as a minimum we would expect the additional treatment to meet all existing and emerging environmental quality standards for freshwater. This will ensure we protect human health and the environment.</p> <p>We note the concerns about the structures that would be required on the river bank. To date only a conceptual design has been prepared the scheme and it would comprise two structures on the riverbank:</p> <ul style="list-style-type: none"> • The discharge, or outflow, would be a discreet and submerged pipe marked by a small timber wharf on the river bank. • The abstraction facility, or intake, would be upstream of the discharge and would need to include fish and eel screens, pumps and control units. <p>There would be opportunities to screen and landscape the facility and design it in consultation with regulators, local communities if the scheme is taken forwards.</p> <p>The scheme would be safe. The quality of water discharged into the river would meet the environmental standards set by the Environment Agency.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>The scheme would also have physical safety features to minimise the impact on aquatic life, boats, water activities and swimmers. The design would be similar to intake systems that are already in safe operation on the River Thames and elsewhere and would comply with all relevant health and safety requirements.</p> <p>We have published a note in response to commonly asked questions on the proposed Teddington Direct River Abstraction scheme and a follow up note to a webinar we held interested parties. In these notes we explain how the scheme will operate, the work completed to date and the further work needed on the scheme, and the environmental safeguards to ensure we protect the environment. To read this information please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/ and scroll to the bottom of the page to find the document links.</p>	
5106	<p>Thames Water customers may well feel that fixing leaks 600 million litres are lost daily and educating people to be less wasteful of this precious resource would be a better investment.</p> <p>when fines have not instilled a behaviour of following the rules to protect the environment todate, how can we gain confidence that the water that will be put in at Teddington will really be clean?</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%. In the month of December, we experienced the coldest days since the 'Beast</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years’ performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We’re currently fixing more than 1,000 leaks per week across our network meaning that, on average we’re fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Teddington Direct River Abstraction (DRA) The Teddington DRA scheme, about which you have concerns, allows us to</p>	



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		<p>capture water resource from Mogden STW that currently flows out to sea in order to increase resilience to drought for our water supplies. This scheme enables us to provide greater resilience to drought earlier than would otherwise be the case.</p> <p>The scheme is flow neutral and at the reduced volume proposed, and does not cause deterioration to water quality and ecology. The treated wastewater effluent taken from Mogden Sewage Treatment Works, would go through an additional stage of treatment (tertiary) to ensure there is no deterioration to the water quality in the river. There are many existing abstraction and discharge points between Egham and Teddington in operation that do not limit the amenity of those who use the river.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	
5106	<p>The DRA Teddington plan could significantly impact the river's ecosystem by raising the water temperature and oxygenation. - This could lead to a bloom of blue green algae, poisonous to both humans and dogs and render the river an out of bounds area for many. Also, it appears that the effect of flows on recreational river users and passenger boats in this busy stretch has not been</p>	<p>The DRA scheme is at a very early stage of development (essentially initial conceptual design) and assessment (risk screening). As the detail of the design is progressed over the next 12-18 months an Environmental Impact Assessment (EIA) will be completed.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date</p>



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	<p>considered.</p> <p>It is likely that lots of small insects will be drawn out of the river, so that the living river is replaced with treated effluent, and biodiversity is lost. -This will lead to further harm to freshwater and estuarine fish already at risk. There may well be damage to the lifecycle of aquatic organisms which “clean” the river .</p> <p>An additional matter Thames Water gave scant attention to was that this is not a droughtonly operation. A “sweetening” flow of 25 million litres per day (not 10 million as quoted by one of their representatives) is required daily to keep the tertiary treatment plant operating correctly.</p> <p>A previous version of the scheme, put forward in 2019, for abstraction of 150 million litres per day was dropped following objections from the Environment Agency, Historic England and Natural England, as well as river and anglingrelated organisations, the Port of London Authority, the River Thames Society, the South East and Thames Rivers Trust, and environmental campaign groups.</p>	<p>The Teddington DRA discharge will have to be of better quality than the receiving water quality in the River Thames at Teddington, so will not deteriorate water quality. The design of the Tertiary Treatment Plant to achieve this is underway, and will be bench tested this year to provide data to evidence this. If this cannot be achieved the scheme will not go ahead. We are progressing algal experiments in 2023 which will see samples of River Thames water mixed with a proportionate amounts of recycled water so that algal growth can be analysed. The results of this will help feed into the design of the tertiary treatment plant and the level of nutrient removal required.</p> <p>The assessment of temperature has shown that for a 75Ml/d scheme the temperature change is localised to the outfall, and that the majority of the channel sees less than a 1°C change.</p> <p>With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users. A full assessment of recreation and health use is underway, and further engagement with river users is required.</p> <p>The attractant flow of the abstraction is being developed in conjunction with the Environment Agency at present. We are currently progressing updated modelling on the intake with an attractant flow of 0.05m/s, 0.1m/s and 0.2m/s which are very low velocities. The modelling completed in 2022 (based on 0.1m/s) showed that the attractant flow remains very localised to the intake (within 10m of the structure) and that the majority of the channel is unaffected, and not lead to a large ‘draw’ effect. The intake will also be fitted with fish/eel screens, with gaps of 2mm or less to prevent then organisms being sucked into the structure. The intake design will also require a ‘sweeping flow’ of river water across the screen to sweep any objects or organisms from the screen if they become stuck.</p> <p>The full operation will be infrequent as described. However, a maintenance flow will be required to keep the Tertiary Treatment Plant ready for full</p>	<p>shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>operation. This may be kept at Mogden and discharged at Isleworth, or could be discharged at Teddington if beneficial to the environment and the pipeline operation.</p> <p>The previous version of the scheme was actually a 300 MI/d scheme, which was identified by our assessments as being non-promotable for environmental reasons. The scheme being assessed today is 75 MI/d.</p>	
5107	I would rather they focused more on maintaining / repairing the pipes to reduce leakage.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5107	I am very much against TW discharging treated effluence into the Thames.	<p>Thank you for your response to the consultation. We hope we can work with the people who are currently opposed to the scheme, to help the better understand the need and mitigations of the scheme. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river. For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water</p>



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			Resource Management Plan while further work is undertaken.
5108	<p>No thanks to treated effluent in the river -please find an alternative. People and wildlife will fall sick and die. Board Members sitting on any water company should swim, taste and swallow the water – proof the pudding – we are going back to the 18th Century in terms of water quality. Stop this bonkers proposal kindly.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5109	<p>STT should be built first and then should there be a consultation as to whether it is serving the needs of Thames Water and whether SESRO is absolutely necessary. -</p> <p>STT is sustainable unlike SESRO which would be ineffective in increasing drought conditions we are experiencing over the years. -</p> <p>The STT is supported regionally including in Wales whereas the SESRO is countrywide opposed. United Utilities have offered support. Assistance for Affinity can be sought from WRSE Grand Union Canal transfer.</p> <p>In summary, it is logical to defer SESRO until SST is in full operation. SESRO is not in the best interest of Thames Water customers. -</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5109	<p>The figure of 123 l/p/d seems high compared to 11 l/p/d estimated in some other countries. Your population estimates are too high. We have a growing elderly population in the UK therefore in the years to come our population will decline. The regulators need to take this into account.</p>	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they are too high. Growth is modelled using an industry standard technique known as a cohort component model. This uses Census and mid year estimate information from the ONS and considers the entire population in single year age bands and then uses fertility, mortality and migration to produce population totals in future years. As we use this type of model we are able to assure you the growing elderly population is appropriately treated. Where other countries have a water use of 11 l/p/d this is more likely to be indicative of a lack of access to water rather it being a discretionary choice in the volume of water used. Within our revised draft Water Resources Management Plan we are looking at further options available to reduce water use further and meet the Government target of 110 l/p/d.</p>	<p>Our preferred plan includes a PCC target of 110 l/h/d.</p>
5109	<p>SESRO will likely run over budget and will certainly not be best value for customers.</p>	<p>The risks of being over-budget or needing a longer lead time to develop apply to all our options. We use industry standard methods to try and capture these risks.</p>	<p>The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following</p>



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			comments received and updates to the input data.
5109	I believe that the amount of time, energy, carbon footprint and environmental disruption that SESRO construction will cause will negate any environmental improvement a reservoir will provide. The degree of regional disruption needs to be factored in, as does the carbon footprint of local inhabitants to journey around the site during its construction, which will likely overrun.	Thank you for your comments, we acknowledge your concerns. Detailed consideration of these aspects will be given if the SESRO scheme is progressed further through the planning and consenting process.	No changes made to the WRMP following this response, for the reasons set out in our consideration
5109	SESRO has many uncertainties including the integrity and stability of the length of the 7km of bund wall. There needs to be further risks assessments of damage and flood risk.	The proposals for SESRO are an early stage in the process. The design process will look at many risk factors including flooding in more detail as the scheme progresses. Depending on the response to the WRMP, if SESRO progresses to the next design development stage, we will fully consult with regulators, councils and the Oxford Flood Alliance. Thames Water takes all aspects of reservoir safety very seriously. The design will comply with all of the relevant legislation. We would look to carry out further work on ground conditions and as part of this would undertake surveys to better understand the properties of the local clay including strength and how it reacts to changing weather conditions such as prolonged dry spells and heavy rainfall.	No changes made to the WRMP following this response, for the reasons set out in our consideration
5109	Saved funds from STT instead of SESRO can be put towards more sewage works and prevent sewage dumping in the Thames.	We need long term investment plans for both water and wastewater services to ensure we can provide reliable services in the face of our changing climate whilst also protecting the environment. Tackling untreated sewage discharges are part of our wastewater plan. In respect of the reservoir and the Severn Thames transfer. The proposed reservoir in Oxfordshire is ahead of the transfer in our draft plan, as it is less expensive overall, with lower running costs; is more resilient - in a drought; and it has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
5114	Teddington abstraction plan: I think this is a bad idea on many levels. It will place treated sewage into a well known local bathing spot. There can only be downside risk for the river ecosystem and wildlife. Thames Water hasn't communicated any information on the more expensive alternatives.	Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date



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		<p>2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need.</p> <p>Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. Further to this, protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5116	<p>I have been involved in several local community and organisational responses to your consultation on the river abstraction at Teddington.</p> <p>As such I will not outline in detail my objections to the proposal but please note that my objections as an individual are in line with those submitted by Bluetits swimming group and The Zoological Society of London.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river</p>



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		<p>Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5117	<p>I have been involved in several local community and organisational responses to your consultation on the river abstraction at Teddington. As such I will not outline in detail my objections to the proposal but please note that my objections as an individual are in line with those submitted by Bluetits swimming group and The Zoological Society of London.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5118	<p>Thames Water has sold off reservoirs and paid out money to shareholders instead of investing in extra climate resilience.</p>	<p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year, and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p> <p>Thames Water has only sold off service reservoirs when these were no</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		longer needed due to changes in water distribution network. It has not sold off any storage reservoirs.	
5118	Thames Water needs to fix its leaks and leave the Thames river alone.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought. To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5120	Thames Water needs to fix its leaks and leave the Thames river alone.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers'</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand</p>	



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		<p>management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5120	<p>As a local resident I strongly object to the proposals to extract river water at Teddington and replace it with treated effluent. The plan is disgraceful. I am concerned about the delicate ecosystems which will be affected in addition to the noisy and unsightly pumping equipment.</p> <p>I swim above Teddington Lock regularly and my daily dog walk along the river means my young dog also swims.</p>	<p>The DRA scheme is at a very early stage of development (essentially initial conceptual design) and assessment (risk screening). As the detail of the design is progressed over the next 12-18 months an Environmental Impact Assessment (EIA) will be completed, which will include noise and landscape and visual assessments.</p> <p>A landscape and visual assessment is underway which will identify the level of impact of the proposal and identify opportunities to mitigate and enhance the amenity value of the area. In addition, a full assessment of health and recreational use is underway, and further engagement with river users is required. With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users, but this will be fully assessed in 2023-24.</p> <p>The ecological assessments to date have covered fish, insects, plants, diatoms and algae. These assessments have assessed the effect of the scheme upon these receptors during times of low flow and extreme low flow when the scheme will operate. With a discharge of better quality than existing river water and minimal temperature, level and velocity difference we do not currently foresee significant ecological impacts. These assessments will be repeated in more detail in 2023/24.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5121	<p>A quarter of Thames Water's output is wasted in leaks. Surely it is better to cut this down first?</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined</p>	

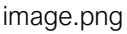


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		<p>scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5121	<p>I am writing to register my objection in the strinfest possible terms to Thames Water’s water extraction and treated sewage output plans at Teddington at Burnell Avenue.</p> <p>The river stretch concerned is a haven for recreational use for swimmers, rowers and paddle boarders and is a peaceful area for wildlife.</p> <p>Replacing extracted water with treated sewage will raise the water temperature and the chemicals used in treatment will enter the river.</p> <p>Thames Water has built no new reservoirs in recent years, preferring to return money which should be used for investment to shareholders.</p> <p>I object to both the activity and the intended location.</p>	<p>Thank you for your response to the consultation.</p> <p>We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate, and Port of London Authority and local authorities as we develop our proposals. The programme of studies includes the assessment of the water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing significant environmental harm. We will do more detailed assessments, including studies on other issues such as noise, air quality, recreation and health as the scheme develops.</p> <p>Thames Water has been developing a new reservoir option for over 30 years. The current regional-led work has shown that we need a reservoir of at least 100 Mm3. Planning consent for construction is planned by 2030 water would be available by 2040.</p> <p>It has been hard to bring forward new infrastructure in the UK over the past few decades. In 2018 the National Infrastructure Commission and regulators recognised that a more strategic approach was required to prove the need for new infrastructure. Ofwat, Environment Agency and the Drinking Water Inspectorate have joined forces, into an alliance known as RAPID, to implement a national approach to planning our critical water resources. Not having enough water to go around would cost London’s economy alone around £500 million each day and if we were in a situation where severe water restrictions were introduced, they would last for weeks or months, not days, hence the importance of forward planning.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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5122	Teddington river abstraction plan: no thanks to treated effluent in the river please find an alternative.	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need.</p> <p>Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment. For further information, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5123	I frequently swim in the Thames at Teddington. Please find an alternative to putting treated effluent into the river.	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.



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5124	<p>Our main issue -is we live here (Red dot):  It is a Gradell listed building.. It has taken us 10 years to restore, and already suffers from high water levels -we have never flooded but our garden does. Our field would neighbour your "wetlands" and that definitely floods.</p> <p>We asked many questions at the consultation to try and understand how given the direction of flow of water, the fact that all the fields around us flood, and our desire to stay in our house -but we were constantly directed to the aesthetics - the incline slope etc.</p>	<p>Thank you for taking the time to provide your feedback on the draft Water Resource Management plan. We're sorry to hear that your garden floods. Here is a link to our webpage about flooding and who to ask for help when it happens: https://www.thameswater.co.uk/help/emergencies/sewer-flooding .</p> <p>A new reservoir would require us to produce an EIA (Environmental Impact Assessment), this would be consulted on extensively and scrutinised by a range of statutory bodies including Natural England, Historic England and the Environment Agency, as well as the county highways, county ecologist and archaeologist teams. We would aim to work collaboratively with statutory bodies as well as the local communities to ensure that the impacts were managed to the highest standards. Lakes, rivers and reservoirs are all key features of our landscape and environment. We would work with the country's leading environmental specialists to design the reservoir to enhance both the landscape and environment by providing new aquatic and terrestrial habitats that encourage greater biodiversity and move away from the predominantly monocultural arable farmland that presently characterises the area. We would also explore the potential for developing carbon capturing wetlands. Thames Water has successful a long and track record of doing this at the London Wetland Centre where we have worked for over 30 years with the Wildfowl & Wetland Trust to create one of the UK's most important wildlife sites and most popular visitor attractions.</p> <p>It is understandable that those located close to proposed major infrastructure projects will have concerns and we want to work with them to understand and take measures to mitigate them. Consultation forms a central part of major development and we will consult fully with a wide range of people including the local community as we develop our plans taking their views into consideration so that we can deliver a facility which brings benefits to the community economically, socially and environmentally. The reservoir will not increase the risk of flooding in the area. It would be built on some of the existing floodplain associated with tributaries of the River Ock and therefore flood compensation measures will be included in the design to leave flood risk at a lower level than if the project hadn't taken place. In addition, the</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		reservoir could potentially improve flood risk management in the Abingdon area, work is ongoing with the Environment Agency on this. This work will be shared in an open and transparent way when it is complete.	
5124	<p>We are opposed to the reservoir: As direct neighbours, as it is extremely likely the displacement alone would cause our house to flood -noone has explained how we WONT flood. The recent advances in desalination technology should be a much more viable sustainable option. The disruption to the area will be huge -the A338 already has too many lorries - especially when the a34 has an issue. -Side note: there have been many many accidents at our location over the years.</p> <p>As you can see -with the right level of information and confidence in the plan -we would NOT be opposed to the reservoir but as things stand -we believe alternatives are much smarter.</p>	<p>Thank you for your response. We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. WRSE considered over 2,000 options including national and regional water transfers, desalination, recycling treated wastewater, reservoirs and catchment schemes - all are viable, potential options which could form part of an overall plan for the South East. We'll need a combination of measures to address the shortfall.</p> <p>Possible sites for desalination plants have been identified at Beckton and Crossness. In 'High' environmental destination scenarios, by 2050, there is a significant need for water in our Swindon and Oxfordshire (SWOX), Kennet Valley and Slough, Wycombe and Aylesbury (SWA) WRZs, as well as a need for an import into Southern Water's Western Area from the Thames catchment. This means that effluent reuse/water recycling or desalination options in London alone will not meet regional resource needs, and so the delivery of the STT or SESRO will be required, with both potentially being needed.</p> <p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA), including appraisal of the traffic and transport impacts of the scheme and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>As noted in our Gate 2 submission to RAPID, one of the key aspects of the SESRO site is that it has very favourable clay geology underlying the site.</p>	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>This means that the material needed to construct the reservoir embankments can be 'won' on site, without the need for the import of material that might be required on other sites. It is also located very close to the main arterial trunk road network, so that construction access can be facilitated from the A34 with minimal impact. Furthermore, it is adjacent to the Great West Railway and we will continue to work closely with Network Rail to facilitate a construction freight access into the reservoir site for much of the construction material needed for the reservoir, such as sand, gravel and stone. All of these measures will contribute to our overall plan to minimise the construction and operational traffic and transport impacts from the scheme.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p>	
5127	<p>Thames Water has already sold off reservoirs and paid out money to shareholders instead of investing in extra climate resilience.</p> <p>Our river is too precious a resource to be treated like a commodity for shareholders.</p> <p>I, and the 13,100 others who have signed the petition against this decision, object to this totally and wholeheartedly.</p>	<p>We note your objection to the Teddington Direct River Abstraction (DRA) scheme. The scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged. We are working closely with the Environment Agency as well as Natural England and the Drinking Water Inspectorate as we develop our proposals, this includes assessing a range of factors including water level, velocity and</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>water quality as well as ecology and biodiversity.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p>	



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		Thames Water has only sold off service reservoirs when these were no longer needed due to changes in water distribution network. It has not sold off any storage reservoirs.	
5127	Thames Water needs to fix its leaks and leave the Thames along.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5127	I am writing regarding my objection to dumping treated water into the Thames, I would implore you to find an alternative.	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need.</p> <p>Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.



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		environment. For further information, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/	
5128	We are repeatedly being told about the egregious sewage discharges into our rivers by the water companies.	The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders. We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
5128	<p>Following attendance at one of the consultation events I would like to register some concerns about the proposed river abstraction at Teddington / other proposals.</p> <p>A) Trust -how can we be sure the abstraction at Teddington will only be used during drought measures?</p> <p>B) Is the current scheme the only viable option to deliver water to East London? I posed the question but did not get an answer, e.g. why isn't a new reservoir being proposed to be situated -East of London?</p> <p>C) I understand a similar scheme at Teddington was already proposed and was previously rejected. Why should we believe the current changes address the underlying concern that the flora and fauna will not be affected.?</p>	<p>Thank you for your response. In answer to questions raised.</p> <p>A) We envisage Teddington DRA will be subject to the Lower Thames Operating Agreement (LTOA) which provides a management framework for the day-to-day operational decisions on Thames Water's abstraction from the lower River Thames. This agreement is a legal agreement that regulates abstraction and when it can occur and will ensure the scheme is only operational when certain triggers are met.</p> <p>B) We have set-out in our WRMP the schemes that can provide additional water to the Lea Valley reservoirs. These include Teddington DRA, Mogden water recycling scheme and Beckton water recycling scheme. Teddington</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.



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	<p>D) The proposal of the new reservoir SW of Abingdon is welcome. I do not understand why it hasn't already been built and is being linked to the acceptance of the other proposals.</p>	<p>DRA has been selected as offering best value when modelling cost, resilience, environmental and customer preference metrics together.</p> <p>C) The size of Teddington DRA has been reduced since the scheme was first considered in the previous WRMP. Significant investigation has been undertaken over the last couple of years to investigate different scheme sizes. As we identify significant effects or where a size breaches legislation or guidance set by the Environment Agency we have rejected that size. Our current published reports states that scheme sizes up to 100MI/d pose a low risk of significant environmental effects. However, we acknowledge more modelling, assessment and design is required to fully assess potential impacts and develop mitigation measures. We believe that water recycling provides a sustainable, viable and feasible way of providing the required water needed across London in the future without significantly impacting on the environment or people. Our work over the coming few years will provide more certainty of this.</p> <p>D) We welcome your support for the new reservoir within the WRMP.</p>	
5129	<p>I was led to understand when our water works were sold off to private companies our rivers / water supplies would be maintained to a very high standard. This is NOT happening. So please get your house in order & give the people what they deserve NOW not by 2050 . We will all be dead .</p>	<p>Thank you for your response. We are regulated by the Environment Agency in relation to our environmental responsibilities and the EA are governed by the Defra Government Department. We operate within the guidelines and legislative framework set by Defra and the EA. We recognise the requirement to improve our track record compared to past performance in some areas. This is why we have announced our turnaround plan, which will address issues related to waste discharges. Our plans for waste are covered in our DWMP whereas our WRMP focuses on water resources issues. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first. We have linked the timing of our environmental destination scenarios with the lead times associated with our environmentally resilient</p>	<p>Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.</p>



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		large water resource options. Therefore, the programme can't be delivered earlier.	
5129	Now you want your customers to dig deep into their pockets to improve the conditions of our rivers which were left to decline over several years.	Our water resources are under pressure and the majority of future investment is to ensure we can cope with our changing climate and can continue to provide a secure water supply, as well as protecting and improving the environment. These investments are funded through customers' bills and we need to make decisions now on what future water supply we want to have.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
5134	I feel its incredibly wrong to choose this plan for the reason that it is the most cost effective "best value" and quickest to implement. Why should the area suffer because Thames Water hasn't had the foresight or the planning (financially or otherwise) to plan for the future of a growing city.	<p>Our plan is a programme of options that balances cost, environment and resilience metrics. We understand that different people have different views on how to weight between those criteria, particularly when we are required to increase drought resilience and re-balance supplies in order reduce abstractions on key rivers to help restore flows.</p> <p>Water companies have been producing Water Resources Management Plans since the 1990s, on a 5 year cycle with an annual review. It has been hard to bring forward new infrastructure in the UK over the past few decades. In 2018 the National Infrastructure Commission and regulators recognised that a more strategic approach was required to prove the need for new infrastructure. Ofwat, Environment Agency and the Drinking Water Inspectorate have joined forces, into an alliance known as RAPID, to implement a national approach to planning our critical water resources.</p>	The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.
5134	At the consultation the environmental assessment was said to be ongoing which mean the exact results of this won't be known until well after the consultation has finished. I don't feel it's right to complete the consultation until all the variables are given.	Our options and plan have been progressed through a suite of environmental assessments at a level appropriate to the nature of this strategic plan. Further environmental assessments, including surveys and monitoring, have been carried out to support the development of our strategic resource options. Results of this work were reported in the draft plan, but the work needs to continue beyond when we published the draft plan, to give us a more complete dataset with which to further develop our conclusions. These will be reported on as part of the Gate 3 reports, and this data will be used to support full environmental assessments (EIA) which will be carried out as part of any planning application.	No change has been made to the plan as a result of this response, for the reasons set out in our consideration.



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5134	<p>I attended the consultation a few weeks ago but feel a lot of questions were left unanswered and felt very unconvinced.</p> <p>What level the water would be “treated”. Water companies have had a track record in recent years of unnecessarily dumping sewage into rivers and seas, to which the EA has turned a blind eye, and although reassurance at the consultation was given that water put out would only be in extreme circumstances and would be treated with the track record of recent year how is this to tested, measured and monitored. As a river swimmer (which includes swimming in Teddington where the abstraction tunnel is due to be built, I don't feel reassured at all that the water will be safe for me to use.</p>	<p>We have published a note in response to commonly asked questions on the proposed Teddington Direct River Abstraction scheme and a follow up note to a webinar we held interested parties. In these notes we explain how the scheme will operate, the work completed to date and the further work needed on the scheme, and the environmental safeguards to ensure we protect the environment. To read this information please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/ and scroll to the bottom of the page to find the document links.</p> <p>We note your concerns about the scheme. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, the environment is not damaged and it is safe for water users. There is no route for raw or untreated sewage to be discharged in the River Thames, upstream of Teddington Weir. Furthermore, the scheme would also have physical safety features to minimise the impact on aquatic life, boats, water activities and swimmers, similar to intake systems that are already in safe operation on the River Thames and elsewhere and would comply with all relevant health and safety requirements.</p> <p>We are working closely with the Environment Agency, Natural England, and the Drinking Water Inspectorate as we develop our proposals. The programme of studies includes the assessment of the water level, velocity and water quality as well as ecology and biodiversity surveys and the outputs will be scrutinised by the regulators and included in the Environmental Impact Assessment which would form part of any future planning application for the scheme.</p> <p>We have also recently established a rivers users forum to share information openly and transparently with the local community, and provide the opportunity for their feedback and scrutiny.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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5134	<p>I'm writing to express my objection to the Thames River Extraction plan at Teddington.</p> <p>I moved to Surbiton a few years mainly because I want to make the most of the river, I'm a regularly paddle boarder (all year round) and river swimmer (all year around) as well as enjoying the river path for running, walking and cycling, so I certainly am making the most of it.</p> <p>My -objections include:</p> <p>What direct consultation has been given to the many water user businesses in the areas including -Albany Outdoors, Thames Young Mariners, Ham Sea Cadets, Kingston Sea Cadets. -Many o, Kingston Rowing Club, Teddington Rowing Club, Royal Canoe Club to name a few. These groups provide vital services and activities to young -people in the area, if the water becomes unsafe these groups will be severely affected, and businesses could go out of business (eg SUP clubs).</p> <p>Looking at the site of the abstraction tunnel in Teddington I don't know how this work can be completed without significant disruption to those using the Thames path – a National Trail. Also Burnell Ave Play Space (the green) is one of only a few river side green areas in the area, which is used and enjoyed by many, there was no mention of any compensation will be given to residents and visitors for the disruption to this land which will no doubt happen during the building of the intake pipe.</p> <p>I love the river for the wildlife, and am lucky enough to enjoy it close up, including all the bird life, fish and the regular visits by seals, although the consultation suggested the rise in water temperatures would be minimal I don't believe it's fair to disrupt the area in anyway, if the water is good enough to be used and pumped to east London surely then recycling it with treated water would degrade the water and make it unfit for purpose.</p> <p>I strongly object to this plan, I feel that it would ruin a very much enjoyed stretch</p>	<p>A River Users Forum was initiated in April, with a meeting held with local river user stakeholders (17 in total, including the Teddington Blue Tits, Twickenham Rowing Club, Richmond Canoe Club, Twickenham Yacht Club, etc). This forum will meet at key points as the environmental assessment and scheme design progresses during 2023-24.</p> <p>The recycled water discharged as part of the scheme will be of higher quality than the current quality of the River Thames, so will not deteriorate water quality. There will not be a physical pathway for storm overflows to be discharged through the new discharge. The new Tertiary Treatment Plant at Mogden STW will have live monitoring which will enable diversion of the recycled water back to the head of the plant if water quality approaches the permitted limits. This will all be required as the discharge is not a waster water discharge, and is considered as a 'Planned Discharge' by the Environment Agency so will be held to strict standards to protect the environment.</p> <p>As with any development, there will be construction activity that may cause disruption. The required construction compound is currently being considered so as to avoid impact to sensitive receptors and minimise temporary impact of the green. We are currently assessing this and wider related construction activity to identify where issues may arise and what measure can be taken to remove or reduce disruption.</p> <p>As mentioned above, the quality of the water being discharged will need to be higher than the water currently in the river at Teddington. The scheme is not continuous and will go months and sometimes a year or more without operation. When it does operate, during summer months, our assessments have shown that there is negligible difference in temperature between the discharge and river, meaning that summer temperatures will not increase. In some circumstances (mainly late autumn/early winter) the discharge can be warmer than the river. The assessment of temperature has shown that during these circumstances, for a 75MI/d or 100MI/d scheme, the temperature change is localised to the outfall, with the majority of the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	of the river. As a local resident I believe this will strongly and negatively impact the community.	channel seeing less than a 1°C change. This essentially means that under these circumstances, autumn river temperatures are extended by a few weeks into early winter. The temperatures identified are within the tolerances of the ecology present. Therefore, at this stage we consider there to be limited effect on ecology from temperature change. This is now being reassessed in greater detail through 2023-24.	
5139	Water consumption: Persuade customers in the Thames Valley to reduce their usage by approx. 10%, to 110 litres pp (the government target)	Our demand management programme within our draft Water Resources Management Plan reduced customer water use within our supply area. Within our revised draft Water Resources Management Plan we are examining options available to achieve the Government's 110 l/p/d target.	Our preferred plan includes a PCC target of 110 l/h/d.
5139	Water Leakage: reduce this by 50% (the government target) in the Thames Valley and London.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly,</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5139	<p>Please note that I am against the proposal to build a reservoir in the region of East Hanney and Steventon. Instead, If Thames Water attended to the following, I believe there would be no need for the reservoir:</p> <p>River Severn: install a pipe line a.s.a.p.</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	



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5140	No thanks to treated effluent in the river please find an alternative!	<p>Thank you for your response to the consultation. Our climate is changing, the population is growing and our environment is under stress; we need to plan ahead to make sure we have a safe and sustainable water supply for our London and South East customers. We have looked at over 2,000 options including desalination plants, water recycling plants, new reservoirs, and transfers of water to provide us with the extra water we need.</p> <p>Our draft Water Resources Management Plan includes actions to make the most of the water resources we have available as well as developing new water sources. The Teddington DRA scheme, a new reservoir in Oxfordshire and a water transfer from the River Severn are all part of our draft plan and are all needed if we are to provide a reliable water supply to customers across the South East for the next 50 years, as well as protect the environment.</p> <p>For further information, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5141	<p>Customer demand management</p> <p>2 I note that by your own admission the per capita target is somewhat higher than the government target and no doubt this will be acceptable to the Ofwat and EA.</p> <p>3 There is a need to recognise the role of consumers in meeting consumption targets. The Water Conservators have suggested that more needs doing than just leaving the principal focus of changing consumer habits to Water Companies and there needs more national leadership and, possibly' more ancillary regulations; the Water Conservators supported the Defra proposals for water efficiency, with some adjustments .</p>	<p>We have acknowledged within our draft WRMP that we do not achieve the Government PCC target of 110 l/p/d. Within our revised draft WRMP we are looking to improve the reduction achieved so we can meet the Government target.</p> <p>We agree that water companies alone will not be able to solely achieve Government target and that it will require support and engagement Government, third parties, regulators and most of all customers.</p>	Our preferred plan includes a PCC target of 110 l/h/d.
5141	And this submission is based on reading the Plan and listening to an excellent presentation by Philip Stride on February 28th .Well done for a good plan and well thought through consultation .	Thank you for your engagement in relation to the draft WRMP and the consultation.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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5141	<p>4 Phil Stride’s presentation highlighted an issue which has been of growing concern which is customer leakage. This occurs in two ways, within premises and in the supply pipe. Water Fittings Regulations were enacted in 1999 to deal with the impact of internal fittings on the quality of drinking water at the sampling tap and to protect customers, as compared to the responsibility of water companies for water quality at the property curtilage. The focus has evolved and now embraces more issues about within premises leakage. ‘Leaky loos’ was mentioned. Leakage from supply pipes is dealt with separately under S75 of the Water Industry Act. And these are in juxtaposition with Part G of the Building Regulations for new build. It is my view that this whole area needs to be reviewed. At the least Thames should have a strong ‘axis of delivery’ with Local Authorities.</p> <p>5 I was intrigued by the focus on smart water meters. In principle these are a great idea. But my experience in Anglian Water in the 1990s in delivering the most provocative metering programme at the time, is that the switch to metering in itself saves about 1015% consumption. So what extra cost benefits are there for going from dumb to smart metering?. We have all experienced customer resistance on metering, but the introduction of more etechnology into homes (smart phones etc) might just be the final factor in resisting the installation of metering .So it might well be that some customers with fitted smart metering might use them as dumb meters pro tem . I am pleased that this project has gone well, so far, and I support the initiative.</p> <p>Distribution Leakage</p> <p>6 I compliment Thames for its programme. The Water Conservators have sought to highlight the practical issues of closing roads for mains replacement (along with those for resewering). And there is a lot of experience stretching right back to the immediate post privatisation schemes to address S20 Undertakings. These include the New Roads and Street Works Act , commercial compensation for affected businesses (under the Water Industry Act)), and the disposal of excavation waste (many golf course were remodelled in the early 1990s !)</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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	<p>7 There has been a move away from Lowest Economic Levels of Leakage because there was insufficient recognition of environmental costs, but there is still room for an evolved approach. Nevertheless, if the arguments about LEL are set aside, what does Thames think that, in realistic practical terms, is the lowest rate of leakage achievable? Of course, this will vary according to the average asset age, but even with modern assets, it might not be possible to get below about 8%. This is a very important media message</p>	<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that see the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Government-led water use reduction policies In addition to the actions we can take, the government is planning to introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits.</p> <p>Direct incentives are unlikely to be large enough to influence house builders. We are working with several government-led steering groups to scope future mandatory water labelling and strengthen the water efficiency standard of new build properties and tighten water regulations. These standards may see alignment with the proposed mandatory water labelling scheme, and fitting of grey and rainwater harvesting systems become business as usual.</p> <p>Expectations that the government will take future action are included in our forecasts.</p> <p>Education and campaigns to promote water efficiency</p>	



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		<p>Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water.</p> <p>Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed un-meterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p>	



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		<p>Better metering data for customers All household customers that have had a smart meter installed currently have access to their usage and leakage information through Thames Water online. We are actively promoting online account registration to increase the customers that can benefit from both personalised water efficiency advice and paperless billing. We are currently developing new customer engagement capabilities that use smart meter consumption data to deliver proactive digital engagement for changing behaviours and enabling customer self-fixing of customer-side leakage and internal leaks. On the commercial user side, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access commercial property smart meter data on a live dashboard. The dashboard includes real time data showing any meter with Continuous flow, which can be used by Retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through Retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p>	
5141	<p>New river abstraction at Teddington</p> <p>8 A new abstraction would be sited on the River Thames close to Teddington Weir. Abstracted water would be transferred via an existing underground tunnel to the Lee Valley reservoirs in East London. Highly treated recycled water would be moved from Mogden sewage treatment works upstream to compensate for the additional water taken from the river to protect the environment and wildlife. -</p> <p>9 This is a proposal which draws on a lot of experience. -It is a reversal of a general rule of modern resources planning that effluent discharges must be made below abstractions. But times change. This recalls plans which were put into place for the Great Drought of 1976, but never activated because the weather changed suddenly in the August. However, the key factor in the</p>	<p>New river abstraction at Teddington The Teddington scheme is not a true indirect recycling scheme (i.e. put – take), instead the recycled water discharge will be a few hundred meters downstream of the planned abstraction in a 'take – put' arrangement. The reference to chloride is appreciated and has been passed to the water quality and process team. Water quality monitoring has been undertaken over the last three years, analysing >350 different determinands (including >50 difference PFAS) each month, including at Mogden STW which will provide the source water. Therefore the composition of the source water including PFAS is well understood, and we are now working on the design of the tertiary treatment plant to appropriately treat this (as mentioned above). The Lee Valley reservoirs will provide the safety break as described, as they currently do for abstraction on the Lee. The proposed tertiary treatment plant (TTP) at Mogden STW will have real time monitoring of the key water quality parameters on both the input flow</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>recycling model was the build up of chloride and the need to avoid an asymptotic value which caused meringue dezincification of brass fittings . Philip Stride reported that chloride might now be joined by other ‘forever chemicals’ and no doubt will need modelling. It might be worth revisiting the 1976 Plans -if they are still available. -</p> <p>10 Direct river abstractions require a period of bankside storage for seven days (a working criterion developed after the River -Dee/ Huntington WTW pollution in the 1970s). I assume that the reservoirs -to which the abstraction is pumped act as the safety break in terms of water quality , but is anything planned for storage of the Mogden effluent before discharge in the event of a disaster .This is a about risk management.</p> <p>Abington Reservoir -</p> <p>11 I noted that pressure group opposition is of concern and there might be some value in taking those people with major concerns about the impact of the reservoir, to see how other regions have coped with this in the past and, of course, other Thames reservoirs. I understand that there is concerns about the actual construction, but I am sure that Thames will be following the ‘considerate constructor’ route .</p>	<p>(from the final effluent stream at Mogden STW) and the output (advanced treated water) from the TTP prior to conveyance for discharge at Teddington by Thames Water.</p> <p>We will monitor the input flow against the concentrations the plant is design for, if levels are close to exceedance the system will stop feeding the TTP and only recommence when levels are back down. This will ensure the TTP is able to always treat the flow to the required standards.</p> <p>Abington Reservoir Thank you for the suggestions that we engage with the local community to better understand their concerns. We are engaging with local councils, both district and parish and have been talking with local groups as part of the consultation process since the reservoir was first proposed. We hope to keep disruption caused by the construction as minimal as we can and as you suggest, will register the project with the Considerate Constructors Scheme as part of the suite of mitigation measures.</p>	
5146	<p>Thames Water has sold off reservoirs and paid out money to shareholders instead of investing in extra climate resilience.</p>	<p>Thames Water has not ever sold a raw water storage reservoir. We acknowledge that dividends have been paid to investors in the past, but our current investors have not received a dividend in several years.</p>	<p>No changes - none requested</p>
5146	<p>Our river is too precious a resource to be treated like a commodity for shareholders.</p> <p>I object totally and wholeheartedly.</p>	<p>We note your objection. The Teddington Direct River Abstraction (DRA) scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit. We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p>	



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5146	Thames Water needs to fix its leaks and leave the Thames river alone.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5147	<p>Apart from the ecological effects on the river, this is my beloved beautiful swimming spot and you will ruin something very good in my life.</p>	<p>Thank you for your response.</p> <p>The scheme would be designed to be safe for swimmers and other water users. The scheme would be designed to be safe for swimmers and other water users. Our current level of treatment aims to ensure we meet the environmental quality standards set to protect human health and the environment. We are working closely with the Environment Agency, Natural England, and the Drinking Water Inspectorate as we develop our proposals. The scheme would also have physical safety features to minimise the impact on aquatic life, boats, water activities and swimmers. The design would be similar to intake systems that are already in safe operation on the River Thames and elsewhere and would comply with all relevant health and safety requirements.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p>	
5147	I really object to the plans to abstract water from the Thames and to add treated effluent to the river Thames in ham.	Thank you for your response to the consultation. We hope we can work with the people who are currently opposed to the scheme, to help the better understand the need and mitigations of the scheme. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date



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		recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river. For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/	shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5150	“Best value” in monetary terms should not be the highest priority. There are many concerns about the ecology of the river and its biodiversity.	We agree. Our definition of best value is set out in Section 10 of the WRMP Main Report. Value is not just cost, we include environment and resilience metrics to give us a rounded view in the long-term.	The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.
5150	I am writing in regards to conserving our rivers. It is vital to reduce abstractions from chalk streams and other rivers.	Thank you for your response. A significant driver in our dWRMP24 is to improve the environment we are so heavily reliant on. In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 Ml/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first.	Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.
5150	Most important of all, TW should stop discharging untreated sewage into our rivers. Releasing treated sewage into the river will affect water quality and wildlife.	The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders.</p>	
5150	<p>Thames Water should focus on reducing leaks, increasing metering and encouraging people to use less water.</p> <p>Having a water meter fitted helps to reduce usage by around 13%. Thames Water should aim to fit most homes by the end of the decade and encourage people to reduce their use from 141 litres per day to 110 litres per person per day. Perhaps those who use excessive quantities of water should pay at a higher rate for this precious and finite resource.</p> <p>Thames Water (which loses around 605 million litres per day) should employ new technology to fix leaks and prevent water loss on customers' properties faster.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target.</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes.</p> <p>We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through</p>	



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		<p>our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	



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5150	I strongly object to the Teddington Direct River Abstraction scheme. I am concerned that this will affect the ecosystem of the river and have adverse effects on wildlife. It could also affect those who swim and use the river for community water sports. More than 12,000 people have signed a petition against this plan.	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5151	We support investment in nature based solutions such as wetlands and rain gardens. We think that resilient catchments and engaged communities are an important part of managing water resources now and in future.	Thank you for your response. We note your support for nature based solutions, and agree that these interventions coupled with community engagement could have a very important role to play in better managing our water resources into the future.	No change has been made to the plan as a result of this response; a change was not requested.
5151	The plan includes some good and ambitious targets to reduce abstraction in order to protect chalk streams. We support this.	Thank you for your support of our approach.	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.
5151	<p>The plan includes actions to reduce water demand that can start now. We think that helping people to use less water is good. Smart metering and stepped tariffs are effective ways to help people manage their water use. However, Thames Water are being less ambitious than the government target, and less ambitious than other water companies. We think they should do more to reduce per capita water consumption.</p> <p>The plan includes targets to reduce leakage by 2050. Overall we support this</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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	<p>BUT the level of leakage reduction proposed for the Swindon (SWOX) and Kennet Valley zones is too low. At only 14% in SWOX and 30% for the Kennet Valley, both are well below the government target of 50% by 2050. We think that leakage in the Kennet Valley and the Swindon should be reduced much more.</p> <p>If Thames Water were to achieve the government’s targets for leakage reduction and per capita water consumption there would be no need to export water from the Kennet to Swindon, properly protecting the chalk stream environments of the Kennet Valley.</p>	<p>stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Government-led water use reduction policies In addition to the actions we can take, the government is planning to introduce measures to support long-term, sustainable water use across the UK, including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits.</p> <p>Direct incentives are unlikely to be large enough to influence house builders. We are working with several government-led steering groups to scope future mandatory water labelling and strengthen the water efficiency standard of new build properties and tighten water regulations. These standards may see alignment with the proposed mandatory water labelling scheme, and fitting of</p>	



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		<p>grey and rainwater harvesting systems become business as usual. Expectations that the government will take future action are included in our forecasts.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end</p>	



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		<p>performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Chalk Stream In this draft plan we have proposed reducing abstraction from our vulnerable chalk streams and other watercourses in order to improve flows and the habitats for fish and other wildlife. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes reducing the amount of water we take from sensitive rivers and waterways by over 500 Ml/d, targeting reductions in vulnerable catchments first. To deliver on this, we are working with the Environment Agency and our stakeholders such as Chalk Streams First. We are also commencing the installation of smart meters in homes and businesses in these sensitive catchment areas, further assisting efforts to reduce both customer demand and leakage.</p>	
5151	<p>The plan includes water transfers from other parts of the country and a new reservoir (referred to as SESRO -South East Strategic Reservoir Option).We support the creation of a water transfer network and would like to see transfer options prioritised. We have concerns that the large scale options such as SESRO and Severn Thames Transfer are a long way in the future and do not</p>	<p>Noted, thank you.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>necessarily benefit the Kennet. We support their development but need other actions to be happening between now and 2050. We welcome the proposed water transfer from Wessex to support the Kennet Valley.</p>	<p>River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have</p>	



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		collated and summarised responses in the Statement of Response Technical Appendices Appendix J.	
5152	<p>Any mention of the environment from TW has to be utter hypocrisy, given the scale and frequency of their sewage releases into the river systems in various locations.</p> <p>Sorry, TW can't be remotely trusted. They've broken repeated promises re Sewage in rivers, and fixing London's leaks, just a hopeless company.</p>	<p>We note your comments and lack of trust in Thames Water. The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region.</p> <p>The Teddington DRA scheme follows the principles of our normal water supply system whereby we take water from the river, treat it to a high standard for our customers to use, and once it has been used we treat the wastewater and discharge it to the river, complying with the environmental permits. Upstream of Teddington Weir, numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries, this process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Environment Agency will regulate the scheme if it is taken forwards to ensure the river and its ecology is protected.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p>	
5152	<p>More utter hypocritical twaddle. TW has had since 1989 to get sorted out. STILL we have regular apologies about their legendary failures to fix leaks right round their system, especially in London.</p> <p>Additional sources???? Flawed by faulty use of population projections, and of course, FAILURES re fixing all those leaks!!</p> <p>TW has had since 1989 to get sorted out. STILL we have regular apologies about their legendary failures to fix leaks right round their system, especially in London.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Population forecasts Our forecasts of supply-demand balance are developed considering 4 primary challenges: population growth, Environmental Destination (licence reductions), Climate Change, and changes in the requirement for resilience. All these aspects have specific guidance setting out the expectations of our regulators. Our plan complies with these requirements.</p> <p>Growth forecasts used were produced by either local authorities or the ONS and are subject to their own requirements, we do not produce our own</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>forecasts of growth. We have no reason to believe that these forecasts have been inflated. We have then used independent consultants, Edge Analytics, to align this data with our Water Resource Zone boundaries and to extend the horizon to 2075.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers’ pipes. We know it’s not acceptable to be losing so much precious water and we’re investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we’re not where we’d like to be on leakage. The hot and dry summer last year created an unprecedented ‘soil moisture deficit’. As the ground dried out, our pipes and our customers’ pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We’ve estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the ‘Beast from the East’ in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we’re making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5152	<p>Ludicrous twaddle. The proposed new Abingdon reservoir will cause vast amounts of pollution, from the thousands of truck journeys needed over 12 years or so.</p> <p>The proposed Abingdon reservoir would be massive, untried tech, take far too long, -and with this firm's past failures, you couldn't trust them to build a doll's house properly. TOO RISKY!!</p> <p>GIVEN that so far we've had 3 different reasons for the reservoir, one to send water to London (discounted by firms down there) one to keep it locally (now discounted) and latterly, for the Portsmouth area (use desalination down there?) it seems barmy to trust TW's motives for it.</p> <p>MORE NONSENSE!!!! A water transfer option from the Severn would be cheaper, and far less risky.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA), including appraisal of the traffic and transport impacts of the scheme and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>As noted in our Gate 2 submission to RAPID, one of the key aspects of the SESRO site is that it has very favourable clay geology underlying the site. This means that the material needed to construct the reservoir embankments can be 'won' on site, without the need for the import of material that might be required on other sites. It is also located very close to the main arterial trunk road network, so that construction access can be facilitated from the A34</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>Despite being created in 89, it's only just preLockdown that the documentary was released, which had TW trying to map all the London sewers, despite knowing about millions of leaks some years earlier. You couldn't expect them to build a house of cards, let alone an unprecedented size reservoir. -The Severn water transfer concept would be cheaper, FAR quicker to implement, much less environmental impact. And of course, far more water is lost in leakage than would be gained at vast expense with a new reservoir.</p>	<p>with minimal impact. Furthermore, it is adjacent to the Great West Railway and we will continue to work closely with Network Rail to facilitate a construction freight access into the reservoir site for much of the construction material needed for the reservoir, such as sand, gravel and stone. All of these measures will contribute to our overall plan to minimise the construction and operational traffic and transport impacts from the scheme.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the</p>	



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		<p>ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm3 - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll 	



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		<p>need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate;</p> <ul style="list-style-type: none"> • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>Reducing leakage is a priority for us. Right now, around 24% of the water we supply is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we've got a plan to fix it. We remain committed to reducing total leakage by 20% by 2025 and as part of our draft WRMP we're aiming for a 50% reduction by 2050. This is a challenging and ambitious target and will require innovative approaches and significant investment. We have examined scenarios to achieve leakage reduction sooner (and later), but the planning challenge we face is such that demand management and building new supply resources will need to proceed in parallel. To accelerate leakage would be very costly and as well as cost, much of our water network is under</p>	



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		<p>London and it would therefore be very disruptive to the population and businesses if we were to dig up too much of it at once. Tackling leakage is an important part of our future plans but it will not solve the water challenge we face on its own. We also need to work with our customers to make sure we use our water supplies carefully and invest in new sources of water.</p>	
5155	<p>I would like to lodge my strong objection to putting treated effluent in the river - we love the river life, the animals and nature there, we walk there daily and our children row on the Thames here.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5156	<p>I am also concerned about the detrimental effects on Lensbury Club users as treated sewage water is discharged into the river:</p> <p>1) There is a Water Sports Centre at the Lensbury Club on the banks of the river, opposite the proposed location for both the effluent discharge and the Abstraction Plant. The Water Sports Centre is used by Members and Guests of all ages who enjoy activities on and in the River Thames. There would be a negative impact on them.</p> <p>2) In addition, the Lensbury Club has a stunning riverside location whose views of natural beauty would be seriously impaired by the proposed construction.</p>	<p>We note your concerns in relation to the proposed Teddington DRA scheme. The scheme would be safe for swimmers and river users. The quality of water discharged into the river would meet the environmental standards set by the Environment Agency. The scheme would also have physical safety features to minimise the impact on aquatic life, boats, water activities and swimmers. The design would be similar to intake systems that are already in safe operation on the River Thames and elsewhere and would comply with all relevant health and safety requirements.</p> <p>In terms of the visual impact and structures on the river bank. We are still early in our planning process, we have not yet done detailed design so the exact location and appearance of new infrastructure is not set. The scheme</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>It is my hope that you will heed these grave concerns.</p>	<p>would need two new structures on the river bank - an outfall, where we discharge the highly treated water into the river, and an intake point, where we would draw water from the river. The outfall would be a submerged pipe marked by a small timber wharf on the river bank which would not be widely visible from the surrounding area. The intake would include screens to stop debris, fish and eels, entering the intake as well as pumps and a control unit. The design would be similar to structures already in safe operation on the River Thames and we would work with the local community and local authorities to make sure the design is attractive and in keeping with the local area.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a</p>	



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		<p>negligible effect on river flows, except for a small section of the river between the abstraction and discharge points.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).</p>	
5156	<p>As a member of the Lensbury Club, Teddington, for 3 decades, I write to express my deep disquiet about the proposal to construct a River Abstraction Plant directly opposite the Lensbury Club grounds on a stretch of the River Thames of great natural beauty.</p> <p>I am concerned about the impact on the environment and river users:</p> <ol style="list-style-type: none"> 1) The area identified for the possible location of the Abstraction Plant and effluent discharge is a local beauty spot enjoyed by swimmers, paddlers and walkers alike. 2) The beautiful vista of the River Thames will be scarred by the addition of the Abstraction Plant. 3) The river life -fish, insects, plants, water birds -will be impacted. 	<p>To answer each point in turn:</p> <ol style="list-style-type: none"> 1) The recreational usage of the River Thames in this area is appreciated and a dedicated recreational assessment is being progressed. This will include consultation with the organisations that use the river as the scheme design and assessment progress through 2023-24. With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users, but this will be fully assessed in 2023-24. 2) A landscape and visual assessment is underway which will identify the level of impact of the proposal and identify opportunities to mitigate and enhance the amenity value of the area. 3) The ecological assessments to date have covered fish, insects, plants, diatoms and algae, and assessed the effect of the scheme upon these receptors during times of low flow and extreme low flow when the scheme will operate. With a discharge of better quality than existing river water and minimal temperature difference we do not currently foresee significant ecological impacts. These assessments will be repeated in more detail in 2023/24. 	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5157	<p>Having a water meter fitted helps to reduce usage by around 13%. Thames Water should aim to fit most homes by the end of the decade and encourage people to reduce their use from 141 litres per day to 110 litres per person per day. Perhaps those who use excessive quantities of water should pay at a higher rate for this precious and finite resource.</p>	<p>Within our preferred plan we aim to have metered approximately 75% of all properties by the end of the decade and beyond that horizon we will look to continue to increase the number of metered properties achieving over 90% by 2040. We have also included within our preferred plan the introduction of different tariffs where by those who use excessive volumes of water will pay more while protecting those who have valid reasons for higher water use.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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5157	“Best value” in monetary terms should not be the highest priority.	We agree. Our definition of best value is set out in Section 10 of the WRMP Main Report. Value is not just cost, we include environment and resilience metrics to give us a rounded view in the long-term.	The Programme Appraisal for the revised draft plan has been re-done and Sections 10 (Programme Appraisal and Scenario Testing) and 11 (The Overall Best Value Plan) have been re-written following comments received and updates to the input data.
5157	It is vital to reduce abstractions from chalk streams and other rivers.	Thank you for your support of our Environmental Ambition proposal.	Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.
5157	Most important of all, TW should stop discharging untreated sewage into our rivers. Releasing treated sewage into the river will affect water quality and wildlife. There are many concerns about the ecology of the river and its biodiversity.	We note your concerns. The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. The Teddington DRA scheme follows the principles of our normal water supply system whereby we take water from the river, treat it to a high standard for our customers to use, and once it has been used we treat the wastewater and discharge it to the river, complying with the environmental permits. Upstream of Teddington Weir, numerous sewage treatment works discharge treated wastewater into the River Thames and its tributaries. This	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>process is vital in ensuring rivers and tributaries keep flowing and wildlife thriving. The Environment Agency will regulate the scheme if it is taken forwards to ensure the environment is protected.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir. The treated recycled water would be taken from Mogden to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>The scheme is at a conceptual design stage. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time. We would work with local partners to ensure the wider benefits are identified. The scheme would have best practice design and several features to minimise the impact on aquatic life, boats, water activities and swimmers.</p> <p>The scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points. We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (Ml/d) would meet Environment Agency guidance. The scheme that is proposed in the draft</p>	



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		Water Resources Management Plan is smaller than this – it is 75 megalitres per day (Ml/d).	
5157	<p>Thames Water should focus on reducing leaks, increasing metering and encouraging people to use less water.</p> <p>Thames Water (which loses around 605 million litres per day) should employ new technology to fix leaks and prevent water loss on customers' properties faster.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%.</p>	



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		<p>Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Innovation We are always on the lookout for innovative technologies, particularly for the point at which they become commercially viable. Then we can update our assessments in future planning cycles. However, we cannot plan on the basis that a new technology will come along.</p> <p>The innovative options we currently have in the plan are based on current industry practices that have not yet been fully realised for Thames. These include:</p> <ul style="list-style-type: none"> - Price Tariffs implemented to encourage customers to be more conscious of their water use. - Further advances in district metering our areas to aid with leakage reduction and, potentially, new pressure management. - Advances to current leakage control and mains replacement activities, to identify, locate, and fix/replace leaky pipes quicker. - Commercial Innovation will be focused on maximising the benefits of smart 	



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		<p>meter data to help identify innovative ways to reduce demand and help businesses save water and money on their bills. This will include continuous flow alerts and segmentation, as well as identification of discretionary water use opportunities.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area. In dWRMP24, we revisit these campaigns to provide more focus to link water savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	
5157	<p>I strongly object to the Teddington Direct River Abstraction scheme. I am concerned that this will affect the ecosystem of the river and have adverse effects on wildlife. It could also affect those who swim and use the river for community water sports. More than 12,000 people have signed a petition against this plan.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	
5158	<p>forecast of increasing industrial water consumption in an area such as the Thames serves would be unlikely. The most likely cause of an increase is population growth, ignoring for the moment climate change.</p>	<p>For the whole Thames Water supply we are forecasting a 13 Ml/d increase in non-household demand within the baseline scenario, i.e. prior to any non-household water efficiency, this is slightly less than a 3% increase. Part of this is due to the population increase as an increase in the number of jobs within a region is implicit in increasing population. We therefore consider our forecasts of non-household demand to be reasonable.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
5158	<p>The consultants employed by Thames and, one assumes, directed by Thames, generated models based on the RCP8.5 emissions scenario for climate estimates looking far ahead. The MET office describes this as plausible but they are the most extreme pathway for global greenhouse gases; described as the “do nothing scenario”. Severn Trent are very actively trying to get as close to Net Zero as they can and so are Thames. Opinions expressed by people such as Sir James Bevan CEO of the Environment Agency whose approval of such schemes as this seem to be a prerequisite, offer advice which would be considered imbecilic in other contexts. In a lecture on 19 March 2019 titled “Escaping the jaws of death: ensuring enough water in 2050” he presents the orthodoxy: drier summers. Bevan uses the classic technique of frightening his audience by presenting the day when lines on a graph representing supply and demand of water cross as the “jaws of death”. He praises and exhorts Thames:</p> <p>“We will need to build more desalination plants. Thames Water have an impressive one in Beckton, the first of its kind in the UK, which can provide up to 150 million litres of drinking water each day – enough for nearly one million people.</p>	<p>Within our planning we have considered a wide range of climate change evidence. As described in Appendix U, we have undertaken extensive modelling based on scenarios other than RCP8.5 (we have considered RCP2.6, RCP4.5, RCP6.0 and RCP8.5) - the scenario initially considered RCP8.5 due to the importance of considering a coherent climate change scenario across the WRSE region. We have mapped the climate change impact pathways which we have adopted and have found that our 'high', 'medium' and 'low' scenarios overall represent approximately 75th, 50th, and 25th percentile trajectories respectively, across the full range of emissions scenarios.</p> <p>While our preferred programme has adopted a pathway which follows a 'High' climate change trajectory, it is important to recognise that our plan is adaptive, and we will be able to adopt a different investment programme in the future should we find that climate change projections in the future are lower than those in our preferred programme pathway.</p> <p>We have considered desalination plants as one option type which could meet our future supply needs. Desalination plants tend to be relatively expensive to run (requiring a lot of electricity, and with a need for new membranes frequently), as well as involving significant carbon emissions and negative environmental impacts associated with hyper-saline brine.</p>	<p>No changes to our plan for the reasons set out in our consideration</p>



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5158	<p>Thames will have an uphill struggle with just the day to day operation that one cannot understand why they don't take the eminently sensible proposal of GARD and join forces with Severn Trent. This buys them time and is in the overwhelming best interest of their customers. When you rely on sophistry to describe your CMeX performance measure amongst your peers as "17th" when you are last, there being only 17 competing companies, you should know you have nowhere to hide.</p>	<p>Thank you for taking the time to respond to this consultation. We note your comments. Specifically in relation to the Severn to Thames Transfer scheme we are exploring the scheme with both Severn Trent Water and united Utilities but as set out in our draft WRMP we consider the most prudent approach is to develop the reservoir followed by the water transfer. please read Section 10 of our draft WRMP for further detail on the assessment work we have completed.</p> <p>We have responded to the proposals raised by GARD in detail, and refer you to Appendix G of our Statement of Response (Stakeholder Organisations) for our detailed consideration of GARD's proposals.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
5158	<p>It is my opinion that the fate of London's fresh water supply should not be solely dependent on Thames Water. London does not need its reputation to be sullied by a failure in the provision of one of the most basic requirements. If you want this to succeed, you need a company that has the confidence of its customers and is used to success. That does not describe Thames Water. In 2007, Thames had just undergone sweeping changes in their senior management; in 2022 the management jigsaw (8 year plan) was again thrown up into the air and only time will tell if the pieces fit when they land.</p> <p>Thames have suggested that water bills will increase by £100 by 2050 to pay for this and other water resources. My Thames bill for next year has increased since 2007/8 by 99% against 69% for all other government services (council tax, police etc) combined. The CPIH is 53% up in the same period so, Thames are hammering us. Severn Trent have the UK's second lowest bills.</p> <p>This is not a happy company. Thames investors have been "invited" to pay £1.5Bn of which £0.5Bn has been paid this month and bear in mind that, at the direction of Ofwat, no dividends have been paid since 2017. What we don't know and Thames isn't telling us, is what are the conditions that the owners of the business require before the remaining £1Bn in new equity is handed over. Obviously the financial performance of Thames will be a significant factor. They'll be in for a rough ride. Worryingly Thames bet £11 billion collateral on a derivative. The gamble came off with a £580million profit but lost them £895m</p>	<p>Thank you for your representation in which you raise a number of points in relation to Thames Water's operational and financial performance, shareholders and the extent of potential future bill increases.</p> <p>We recognise that we need to improve our track record in some areas. In March 2021 we launched our turnaround plan to improve our performance and, with one year complete, we have made progress. We have always been clear it won't be quick or easy, however, the results of the first year are encouraging despite a challenging and changing environment. We all want to see significant improvements quickly but are determined to make the needed changes in a sustainable way to make a real, positive difference for our customers today and into the future. Part of the turnaround plan is developing new performance-related pay structure, to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results.</p> <p>With regards to profits, our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year, and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>the previous year. Does the water regulator approve and, given how much of investors money comes from UK pensions, does the pensions regulator approve of schemes invested in a company which not only denies its investors any dividend but also involves thoroughly risky decisions which have absolutely no connection with the primary purpose of the business and, perhaps, continuously makes calls for billions?</p> <p>This is not a view Thames would share. This facility is rarely used due to the high cost of operation, and in 2022 the capacity was downgraded from 150 to 100 MI/day. It was criticised before it was built as a waste of money which could be better spent on fixing leaks. In 2007, the then Mayor of London, Ken Livingstone criticised the plant, calling it a misguided and a retrograde step in UK environmental policy. Thames also need to refute Bevan’s calculation that “£4 per household will reduce the risk of drought”. Bevan is still in post.</p>		
5158	<p>The water Regulator asked for proposals to facilitate the resumption of normal activity after the Covid pandemic (it was described as the “green economic recovery”). Five of the 17 or so water companies invited to respond did so, including Thames Water, and in July 2021 the Regulator assessed the 5 proposals received. In their assessment, Thames were awarded £72 million to bring forward a maximum of 204,700 additional smart meters to benefit customers and the environment by reducing leakage and customer demand. The winner, if I can put it so, was Severn Trent who were awarded £566 million which included multiple improvements.</p> <p>in their reasoning, Ofwat noted that Thames investment programme for the 2020-2025 period is not on track and</p> <p>Thames were insistent that any award should be included in the annual RCV (Regulatory Capital Value is a vital component of how price limits are calculated and represents a measure of the capital base of a company when setting price limits. It reflects the allowed expenditure to be recovered from future customers). Thames wanted to improve its gearing covenants. Ofwat did not permit them and</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>the Thames proposal was to accelerate delivery of its compulsory smart metering programme without specific customer engagement and</p> <p>Thames have a) a higher rate of meter installation costs than other companies which Ofwat could not see any reason for, b) they cannot quantify the benefits that their meter programme has delivered to date and c) customers may pay for the expense of the green programme and pay for the cost already embedded in the current pay agreement or Price Review, in other words they will pay twice for the same meter.</p> <p>or some years Thames average consumption (2.52.6 billion ltrs per day) has not changed (droughts included). So did most others. It is possible that this is due to more of the water reaching Thames customers rather than leaking but the reported reduction in leakage would not be enough. The more helpful reason would be the fitting of water meters, ideally smart ones to make it easier to track leakage. The more meters, the less is consumed and, would capture where the leakage is occurring, becomes relatively simple. This would be an exceedingly potent message, easily understandable, relatively inexpensive and a huge win for the environment.</p>	<p>Thames Valley, there will be a small component that will be deemed unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.</p> <p>Better metering data for customers All household customers that have had a smart meter installed currently have access to their usage and leakage information through Thames Water online. We are actively promoting online account registration to increase the customers that can benefit from both personalised water efficiency advice and paperless billing. We are currently developing new customer engagement capabilities that use smart meter consumption data to deliver proactive digital engagement for changing behaviours and enabling customer self-fixing of customer-side leakage and internal leaks. On the commercial user side, we launched our new Digital Data Dashboard and Service in 2022 - to allow Retailers and 3rd parties to access commercial property smart meter data on a live dashboard. The dashboard includes real time data showing any meter with Continuous flow, which can be used by Retailers to contact the end user/business quickly to help reduce the impact of leakage or wastage and reduce water demand and high bills. We will continue to contact businesses direct as well as through Retailers to notify of any continuous flow alerts from our smart meter data, enabling businesses to self fix.</p> <p>Smart meter pricing Smart meters work on the same cost per cubic meter price model as other meters, both charging based on the volume of water used, plus a fixed standing charge. Our smart meters are not charging more per volume of water compared to other metered customers.</p>	
5158	<p>It would be sensible to obtain water from Severn Trent which is part of their plan anyway but do so before building a reservoir rather than after.</p> <p>Thames spent £34m 15 years ago on planning for this reservoir and failed. Their argument then was that it had to be built and that overrode any other consideration. And, in the meantime, the cost of our household water has risen</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>by 100%. If Thames were to build the reservoir, we have been told that the annual cost per household will be £100 on completion and they think this is the cheapest option and at the least carbon cost. Thames have no interest in exploring solutions where they lose the ability to capitalise the cost eg by depending on Severn Trent.</p> <p>Thames have offered to build the 150 million meter³ reservoir for a Net Present Value, they say, of £1.47Bn. As it happens, Anglian are proposing to build two 50 million mtr³ reservoirs at a cost each of £1.5Bn. It is obviously going to be less challenging building a considerably smaller reservoir but, at a price three times greater than Thames can? Thames valuation is the Net Present Value; why cannot Thames try plain English for a change? Such an obfuscation is not helpful especially as their case for this reservoir is that it is cheaper than the alternatives. Determining the cost is not made any clearer in the dWRMP (draft Water Resources Management Plan 2024). The plan suggests that there will be a shortfall of 1,086 MI/d by 2075 but that is not an average. Drought will not occur every day but, the loss of 417 MI/day coming from Environmental improvement will. There is no explanation of what the improvement entails (where is the “robust plan”?) or costs nor why in the space of 40 years it deteriorates from 27 to 417 MI/d? Thames management are blatantly going to react to regulators “expectations” rather than proactively getting on with it. This hear all, see all and say nothing approach is not what your customers want and, almost certainly, not the regulator either. In writing this I have found that other water companies manage this far better than Thames and reap the benefits – just look at Severn Trent’s regulatory performance. It’s not a game by the way</p>	<p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm³ option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it’s hard to predict exactly when we’ll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we’ll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they’d prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p>	



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		<p>Cost information on all our WRMP options is included in the data tables published in the Document Library in the WRMP35 consultation site (https://thames-wrmp.co.uk/document-library/). In comparing the costs of SESRO with other reservoir options, such as Fens reservoir and South Lincolnshire reservoir being developed by Anglian Water, consideration needs to be given to the extent of new assets included in the cost estimates. Both Anglian reservoirs include long raw water transfers, water treatment works and treated water transfer, which are required for SESRO.</p> <p>We have considered different ‘scenarios’ of future supply-demand balance within our investment planning, including a ‘drought’ scenario as well as a ‘normal year’ scenario. This is order to appropriately consider the potential utilisation of options within the WRMP, i.e., we do not bias against “low capex, high opex” options which could be used during a drought and left dormant otherwise, and we do not plan as though drought will happen every day. This is explained in Appendix W of our WRMP, and Table W-7 in the Draft WRMP showed weightings applied to different scenarios.</p> <p>Regarding the status of the “Environmental Improvement” driver within our plan, the driver for the supply-demand balance impact is the potential need to stop/reduction abstraction from some of our existing sources in order to meet Environmental Objectives set out in the National Framework for Water Resources. This is explained in Section 5 of our WRMP.</p>	
5159	the details of the plan are not clear and nor are the costs. Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).	Our draft WRMP has detailed information on assessments we have undertaken on the options considered including information on the cost and environmental assessments. Please refer to Section 7 and the accompanying appendices.	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.
5159	Financial and Commercial facts: The Thames valley customers pay. Thames Water’s shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.	In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year (2022/23), and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	
5159	<p>I wish to object to the Thames Water Plan for the following reasons:</p> <p>Need: the proposed reservoir is not needed (population and water shortage exaggeration).</p> <p>Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p> <p>Globally, there is a World Register of Dams maintained by the International</p>	



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		<p>Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm³ option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for 	



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		<p>the transfer may actually be needed by customers in the Midlands and North West</p> <ul style="list-style-type: none"> The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. 	
5160	<p>I would like to express my objection to the proposed effluent pipe at Burnell Avenue in Ham/Teddington. You have managed to select the exact spot where hundreds of us swim all year round. You might down play the impact, but we swim all year round. Not to mention the kayakers, sailors and paddle boarders. Please come up with a new plan.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5161	<p>I am emailing to object to the plans of buidling an abstration plant at Teddington Weir and releasing treated sweage into the Thames.</p> <p>Concerns as follows: Negative impact on river life (fish, insects, birds, plants etc). Caused by changin temperatures, oxygen levels and chemical makeup. Negative impact on users of the river -swimmers, kayakers, rowers etc. Used by schools and community groups throughout the year. The concrete structure built at the site of the abstraction will be an eyesore on an undeveloped and 'rural' little stretch of the towpath.</p>	<p>The quality of the water being discharged will need to be higher than the water currently in the river at Teddington. The scheme is not continuous and will go months and sometimes a year or more without operation. When it does operate, during summer months, our assessments have shown that there is negligible difference in temperature between the discharge and river, meaning that summer temperatures will not increase. In some circumstances (mainly late autumn/early winter) the discharge can be warmer than the river. The assessment of temperature has shown that during these circumstances, for a 75Ml/d scheme, the temperature change is localised to the outfall, with the majority of the channel seeing less than a 1°C change. This essentially</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water</p>



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	<p>Concerns regarding breaches and unsafe effluent entering water system. How is this really managed and prevented?</p> <p>Over the years the Thames has become cleaner through conservation work, protection and waste management. This would be a step in the wrong direction and absolutely not where we should be headed in 2023...</p> <p>As a local resident living close to the proposed site, and regular river user, I strongly and wholeheartedly object to this ridiculous plan. The Thames and its environment is a precious resource, and I strongly urge for an alternative measure.</p>	<p>means that under these circumstances, autumn river temperatures are extended by a few weeks into early winter. The temperatures identified are within the tolerances of the ecology present. Therefore, at this stage we consider there to be limited effect on ecology from temperature change. This is now being reassessed in greater detail through 2023-24. The ecological assessments to date have covered fish, insects, plants, diatoms and algae, and assessed the effect of the scheme upon these receptors during times of low flow and extreme low flow when the scheme will operate. With a discharge of better quality than existing river water and minimal temperature difference we do not currently foresee significant ecological impacts. These assessments will be repeated in more detail in 2023/24.</p> <p>The recreational usage of the River Thames in this area is appreciated and a dedicated recreational assessment is being progressed. This will include consultation with the organisations that use the river as the scheme design and assessment progress through 2023-24. With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users, but this will be fully assessed in 2023-24.</p> <p>A landscape and visual assessment is underway which will identify the level of impact of the proposal and identify opportunities to mitigate and enhance the amenity value of the area.</p> <p>The recycled water discharged as part of the scheme will be of higher quality than the current quality of the River Thames, so will not deteriorate water quality. There will not be a physical pathway for storm overflows to be discharged through the new discharge. The new Tertiary Treatment Plant at Mogden STW will have live monitoring which will enable diversion of the recycled water back to the head of the plant if water quality approaches the permitted limits. This will all be required as the discharge is not a wastewater discharge, and is considered as a 'Planned Discharge' by the Environment Agency so will be held to strict standards to protect the environment.</p>	<p>Resource Management Plan while further work is undertaken.</p>



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5164	<p>Thames Water has sold off reservoirs and paid out money to shareholders instead of investing in extra climate resilience.</p> <p>Our river is too precious a resource to be treated like a commodity for shareholders.</p> <p>I object totally and wholeheartedly.</p>	<p>We note your objection to the Teddington Direct River Abstraction (DRA) scheme. The scheme would use treated water that would normally be put into the Tideway, the tidal stretch of the River Thames downstream of Teddington Weir. The treated water would have an extra stage of treatment before being transferred via a new pipeline into the stretch of the River Thames, upstream of Teddington Weir. The Environment Agency would set the requirements for the quality of the water that would be put into the river to make sure the river is protected, and the environment is not damaged. We are working closely with the Environment Agency as well as Natural England and the Drinking Water Inspectorate as we develop our proposals, this includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity.</p> <p>A number of the new water resources proposed, including the Teddington DRA scheme, are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Thames Water has only sold off service reservoirs when these were no longer needed due to changes in water distribution network. It has not sold off any storage reservoirs.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>
5164	<p>Thames Water needs to fix its leaks and leave the Thames river alone.</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23</p>	<p>Our demand management and leakage reduction proposals have been extended in our revised draft plan.</p>



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		<p>have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is</p>	



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		such that demand management and resource development have to proceed in parallel. Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.	
5168	Rare flood events (“one in 50 year flood events”) are now happening almost few times a year as climate change has forced the forecast models to be revised to 67 times a year by 2050 The PROBLEM we face is that the overflow has been consistently used during nonextreme weather events And the longterm problem is systemic, given climate change induced more frequent “rare” events than had been planned for to be handled by the CSOs preprivatisation, as a public utility – even if owned by a PE Fund -TW should invest in an overhaul of the CSO by splitting sewage and storm water.	Our drainage and wastewater management plan sets out our investment plan which will ensure a resilient and sustainable wastewater service for the future. The Water Resources Management Plan ensures that we have sufficient water supply for the future. We do, however, agree that climate change poses an imminent and severe threat which we need to take action to combat.	No changes - comment of relevance for Drainage and Wastewater Management Plan
5168	There is a link to “bathing water quality” in the UK (subject to Bathing Water Directive, “BWD”) and to your TW’s compliance with that. The reliability of your data could be argued: Good ecological quality reflects the underlying quality of the water (ie finding wildlife you’d expect to find there) rather than meeting a test for the quality of water at a given point in time. There’s a gap of 58 days between Bathing Water Directive tests which are carried out regularly, but this gives enough time for sewage to be dumped after a test and for the next many number of tides to clear the water in time for the next test. This is significant.	Thank you for your response. This consultation was specifically about our Water Resources Management Plan. Our long-term plans for the wastewater side of the business are within our Drainage and Wastewater Management Plan (DWMP).	No change has been made to the plan as a result of this response, for the reasons set out in our consideration.
5168	- As a non-compliant company having breached your licence on multiple occasions, TW have clearly found an opportunity here to dump. On 18 November 2021, OFWAT and the EA announced investigations on TW (and on 4-5 other privately held utilities). OFWAT highlighted poor performance on pollution incidents specifically for TW.	Thank you for your response. We recognise that we need to improve our track record in some areas. In March 2021 we launched our turnaround plan to improve our performance and, with one year complete, we have made progress. We have always been clear it won’t be quick or easy, however, the results of the first year are encouraging despite a challenging and changing environment. We all want to see significant improvements quickly but are determined to make the needed changes in a sustainable way to make a real, positive difference for our customers today and into the future.	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.



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5168	<p>Huge difficulties arise where there are rain/storm sewers and wastewater/foul sewers that are connected, and TW may not know exactly what is draining into which sewer. My existential QUESTIONS are:</p> <p>WHY is this dumping happening WHO is letting this happen, ie who at the TW governance/senior management has authorised this? There must be an “incentive” to do this, so where does the buck stop in the chain of command? Who is benefiting? HOW is the “overflow” regarded by TW? HOW are the incentivisation and accountability of TW governance linked to achieving any positive environmental and social outcomes? WHAT is the reputational risk your PE Fund investors face (such as Hermes and USS) as they have a fiduciary duty to their pension holders? We will pursue that separately</p> <p>Potential discharge above their allowed limits (WHY would you stop now?) How well TW itself is in the know about the performance of its own wastewater treatment works? Are you making any necessary CSO monitoring investments and by when? Unless you know what has gone wrong, how can you correctly address it? -What is TW doing with that information to ensure you are operating correctly and not causing environmental damage? What is the TW's management's ability to meet the utility's regulatory objectives and the environmental metrics?</p> <p>Where is the data and what is provided to OFWAT as a plan of action? Where does OFWAT stand here? If they only charge financial penalties, and after the damage is already done, new investors might end up footing the bill which TW would have easily integrated in and calculated in its return expectations. This is not satisfactory to those who live with the consequences of a polluted Thames as opposed to the Chinese, Gulf, Canadian investors of TW as well as the General Partner managing the PE Fund only looking at their returns and carried interest.</p>	<p>The discharge of untreated sewage is unacceptable, and it's understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders. Defra, Ofwat and the Environment Agency are the primary governmental bodies who are revising the framework to ensure water companies are fully held to account.</p> <p>In terms of improving performance and remuneration of the Executive, the company is implementing a turnaround plan to transform Thames Water and this year Thames Water's CEO and CFO forewent their performance-related annual and long-term bonuses in response to missing some of performance targets, including leaks and customer service. Thames Water is also drawing up a new performance-related pay structure to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results.</p> <p>The WRMP is a statutory plan specifically focused on water supply, it highlights the challenges we face and sets out the actions we plan to take to maintain the balance between water supply and demand, providing best value for our customers. It therefore does not cover sewage treatment and disposal.</p> <p>We do produce a separate plan, called the Drainage and Wastewater</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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	<p>WE WANT TO SEE:</p> <p>An assessment and commentary from management on their incentives that led to the dumping problems so far and clear accountability to prevent recurrence A comprehensive picture about the TW CSO performance and assessment of physical climate risks on their infrastructure. This can be done with a realtime remotely enabled and continual monitoring for their actual pollution dumps</p>	<p>Management Plan (DWMP) which is focused on what is needed to upgrade and maintain our wastewater assets over the next 25 years. We published the DWMP in spring 2023 and it is available on our website www.thameswater.co.uk.</p>	
5168	<p>How many times did TW spill in 2021 and how does it rank in the industry in terms of its spills? WE WANT TO SEE CSO management to reduce foul water discharge by 95% by a certain date</p>	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Thames wastewater practices Our plans for reducing and removing sewage outflow to rivers (as well as other wastewater-related topics) are available in the Drainage and Wastewater Management Plan (DWMP), the sister-plan to the WRMP for the waste-side of the business. Supporting information for the DWMP can be found here: https://www.thameswater.co.uk/about-us/regulation/drainage-and-wastewater-management</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
5168	<p>Objection to dumping treated effluent to Thames at Teddington. No thanks to treated effluent in the river please find an alternative.</p> <p>Are any of TW sites more vulnerable to large and regular spills requiring larger facilities? Real time data would ensure their status is continuously monitored. How much is TW planning to invest in monitoring and on providing storage for effluent rather than spilling it into the Thames? A relative percentage figure would be significant in assessing longterm intentions?</p> <p>WE WANT TO SEE Investment in basic water trap and storage systems of the CSOs and multi household type private sewage system</p>	<p>Thank you for your comments and response to the consultation.</p> <p>Discharges are designed to happen automatically when, after heavy rain, more flow arrives at a Sewage Treatment Works (STW) than it can treat or store. We cannot control the amount of flow arriving at the works and trying to do so would cause flooding somewhere else, from the sewers backing up.</p> <p>STW are designed so that any surplus, above the amount the site is designed to treat, is diverted automatically to storm tanks and stored until incoming flows reduce and the works once again has spare treatment capacity.</p> <p>Discharges of untreated sewage only take place when the works is operating at full capacity and the storm tanks are full. When that happens, any excess</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>overflows automatically to the river, because there is literally nowhere else for it to go.</p> <p>Eliminating these discharges is not going to be quick, easy, or inexpensive but we consider that putting untreated sewage into rivers is unacceptable to us, to our customers and to the environment and we are committed to achieving the cleaner rivers we all want to see.</p> <p>TW is spending £1.25 billion over the period from 2020 to 2025 on maintaining and improving our wastewater network and STWs. This includes increasing treatment and/or storage capacity at a number of sites, including Mogden, Chesham, Witney, Bourton on the Water, Fairford and many others. Our plan for the following five years, which is currently being prepared, will include further major improvements towards our goal of eliminating untreated discharges.</p> <p>In London, the completion of the £4.6 billion ‘supersewer’ will provide a massive reduction in the need for discharges to the tidal River Thames.</p> <p>While we continue to make these improvements, we think it is essential that we let local people know when these discharges start and stop. In January 2023 we have published EDM (Event Duration Monitor) map, which allows our customers to see in ‘near real-time’ information about storm discharges from all of our 465 permitted locations across the entire Thames Water region. The site gets 10,000 views a day.</p> <p>This transparency is crucial, even though it’s uncomfortable, we need to have a conversation about what collectively needs to be done, who’s going to do it, how it gets paid for and given that it’ll take 30 years, what order to do things in, to upgrade a sewage works takes time and planning, it’s one of the pieces of infrastructure you can’t shut</p> <p>Thames, along with the sector, has made a commitment to cut the total</p>	



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		duration of overflows by 2030 by 50% and 80% in most sensitive catchments.	
5170	I live in North Kingston near the Thames and am commenting on the Teddington Direct River Abstraction (TDRA) component of Thames Water (TW) draft Water Resources Management Plan 2024 (WRMP24) of which I became aware at a very crowded consultation session in Richmond Old Town Hall.	Thank you for your feedback to this consultation.	We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.
5170	<p>Please draw my attention to any other information which could help me to form a balanced view of the proposed TDRA and possible alternative schemes.</p> <p>Sincerely Peter Roberts</p>	<p>Thank you for your representation. We have published a note in response to commonly asked questions on the proposed Teddington Direct River Abstraction scheme and a follow up note to a webinar we held interested parties. In these notes we explain how the scheme will operate, the work completed to date and the further work needed on the scheme, and the environmental safeguards to ensure we protect the environment. To read this information please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/ and scroll to the bottom of the page to find the document links. The Teddington DRA scheme will not negatively impact the river water quality and will have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points. We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme of 75 megalitres per day (Ml/d) would meet Environment Agency guidance. Investigations are ongoing as part of the Strategic Region Options development programme overseen by RAPID. Our existing discharge at Mogden is permitted by the Environment Agency and is designed to operate within consent limits, we do consider that tertiary treatment of the full flow from Mogden is required to meet our permit conditions or support this supply scheme.</p> <p>The Teddington DRA scheme involves a new abstraction point that would be constructed on the River Thames close to Teddington Weir ~ 140m upstream of the outfall. The abstracted water would be pumped into the nearby Thames-Lee-Tunnel (TLT) for transfer to the Lee Valley reservoirs and treatment at Coppermills WTWs before being put into supply. A</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>proportion of final effluent from Mogden STW would have additional (tertiary) treatment at a new plant on the STW site. The treated recycled water would be taken from Mogden STW and transferred via a new underground pipe (~ 4.5 km conveyance tunnel, 1.8m wide and 15-30m deep with up to 8 shaft sites) to the River Thames, upstream of Teddington Weir. This would compensate for any water that is abstracted. The input of recycled water to the River Thames will ensure sufficient flow remains in the river during any periods of abstraction to avoid adverse impacts on the river environment.</p> <p>The scheme is at a conceptual design stage as such the precise locations have not been confirmed. Our working assumption is that they would be on the Surrey side of the river, in the vicinity of Burnell Avenue. And the distance between intake and outfall is around 140m. There will be further design work to confirm the exact location with engagement and consultation with the local community at this time.</p> <p>We would work with local partners to ensure the wider benefits are identified and included in the scheme design at an early stage. The scheme would have several features to minimise the impact on aquatic life, boats, water activities and swimmers. The design would reflect best practice and be similar to intakes already in safe operation on the River Thames and elsewhere, and would comply with all relevant health and safety requirements.</p> <p>The scheme will not negatively impact the river water quality. The treated wastewater effluent from Mogden STW would have an extra stage of treatment (tertiary) at a new plant on the STW site. The</p> <p>extra treatment is required to meet environmental consents as the water would be discharged into the non-tidal section of the river ie above Teddington Weir.</p> <p>The tertiary treatment would include:</p>	



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		<ul style="list-style-type: none"> · Ferric sulphate dosing to remove excess phosphates; · Nitrifying sand filters to remove any remaining ammonia or suspended solids; and, · Mechanical cloth filters to act as a final solids removal barrier <p>There may be additional elements such as flocculation, adsorption, ozonation, to meet the required quality and comply with permits to discharge into the river Thames. The exact treatment required will be agreed with the Environment Agency who would licence the discharge. A Water Quality Assessment Report has been published (Gate 2 report annexes). The report conclusion is that the scheme will have a negligible impact on WFD chemicals, EQSD chemicals and Olfactory water quality.</p> <p>It is a drought resilience scheme, It will therefore be operated at maximum capacity infrequently and only in times of drought. The approach for using such schemes is set out in our Drought Plan and is linked to the amount of water in our reservoirs and river flow over Teddington Weir. Furthermore the scheme is based on an arrangement whereby Thames Water can only abstract a volume equal to the average recycled discharge flow. As such, it would have a negligible effect on river flows, except for a small section of the river between the abstraction and discharge points. Hydraulic modelling has been completed, in consultation with the Environment Agency, to ensure that impacts are minimised.</p> <p>We have undertaken detailed modelling to consider temperature changes to both the freshwater and estuarine Thames. The assessments completed to date show that a scheme up to 100 megalitres per day (MI/d) would meet Environment Agency guidance. The scheme that is proposed in the draft Water Resources Management Plan is smaller than this – it is 75 megalitres per day (MI/d). A larger scheme of 150 MI/d was previously considered and discounted due to the temperature change in the river. Although the temperature impact of a smaller 100 MI/d scheme is reduced and infrequent,</p>	



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		<p>mitigation in the form of operating procedures that implement cessation of operation during periods of significant temperature difference between the recycled water and the receiving water body when under low river flow conditions may need to be considered further in Gate 3. For further information on the scheme see our Statement of Response and revised draft WRMP.</p>	
5170	<p>How often and for how long are the threshold conditions expected to trigger full operation of the proposed TDRA? - What flow will have to be maintained to keep the scheme operational during periods when it is not required? Surely all treated effluent from Mogden Sewage Treatment Works is currently discharged into the Thames tideway (in the vicinity of Isleworth as I understand) and this is abstracted further downstream for the East London reservoirs and other uses? - It appears that the TDRA as described would not increase the volume of water available for East London. -When operating it would simply increase by up to 75 MI/d the volume of nontidal water which is transferred directly to Lockwood Pumping Station whilst the flow in the tidal Thames would be reduced by an equivalent amount. - Why would this be necessary? What is the current range of Mogden treated effluent discharge and where is this released into the Thames? - What overflow discharges have there been from Mogden during the past five years? Asked whether TW has previously implemented a scheme like this the response that TDRA would follow the principles of the normal water supply system is disingenuous since the purpose of that scheme is to enable the transfer of an additional volume of nontidal water from Teddington to the East London reservoirs whilst bordering on infringing environmental permits under low flow conditions. - Does TW have experience of operating a comparable scheme? If there is an important requirement during low flow to increase the volume of water transferred through the HamptonLockwood main then this could be achieved more directly by treating the required volume of Mogden effluent to the necessary standard for it to be discharged directly into the main. - Why is this not a practical option as it would avoid the need for constructing an abstraction facility with pipe line and a discharge outlet at the popular location upstream of Teddington weir? Once the more substantial water transfer and reservoir components of the</p>	<p>The permitted dry weather flow (DWF) for Mogden STW under non-drought conditions is 559MI/d. Definition of dry weather flow: https://www.gov.uk/government/publications/calculating-dry-weather-flow-dwf-at-waste-water-treatment-works/calculating-dry-weather-flow-dwf-at-waste-water-treatment-works</p> <p>The maximum flow to full treatment (FFT) consent for Mogden STW is 1064MI/d. This is the maximum flow the works can treat before needing to use the storm overflow tanks. https://www.ofwat.gov.uk/flow-to-full-treatment-fft-explainer/#:~:text=Flow%20to%20Full%20Treatment%2C%20often,to%20treat%20at%20any%20time.</p> <p>There are two permitted discharge locations for Mogden STW, one at the north end, and one at the south end, of Isleworth Ait.</p> <p>Thames Water’s Event Duration Monitoring (EDM) Annual Return data going back to 2019 is published on our website, and can be found at the following link. Storm discharge data River health Thames Water. The total number of spills is reported, as well the total duration (hours) of all spills over the reporting period.</p> <p>An explanation of the significance of Storm discharge and event duration monitoring (EDM) can be found at: https://www.thameswater.co.uk/about-us/performance/river-health/storm-discharge-and-event-duration-monitoring</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>WRMP24 are implemented would the TDRA or alternative shortterm scheme be redundant?</p>	<p>The water recycling schemes would operate intermittently as required during periods of drought in the Thames Water Drought Plan framework. Anticipated operational utilisation rates would typically be in the months August to November, peaking at 37% of days in September. Outside this period, there would be less regular usage in July and December, with usage very rare in June and January and not anticipated in February, March, April or May. It is assumed that the water recycling schemes would be utilised and operated as one of the strategic drought schemes and that the trigger of utilisation would be same as the strategic drought schemes in the current Drought Plan. Strategic drought schemes are sources of water that are permitted for use during drought period but are not used as part of day to day' baseline supply. As per the Thames Water Drought Plan, strategic drought schemes are brought into service when reservoir storage drops lower than typically observed at the time of year. The following triggers for utilisation of strategic drought schemes are identified in the Lower Thames Operating Agreement (LTOA).</p> <ul style="list-style-type: none"> - Naturalised flow over Teddington Weir receding down to 3000 MI/d on average for 10 days during the course of a drought event (defined as having a Drought Event Level (DEL) equal to or greater than DEL1), and - Reservoir storage levels having fallen to the Teddington Weir 800-700/600 MI/d flow requirement defined in the Lower Thames Control Diagram (LTCD). <p>No water downstream of the Teddington weir is abstracted by Thames Water as raw water for use in reservoirs (including those in east London), the only exception is abstraction of saline water at Beckton for use through a desalination plant Thames Gateway Water Treatment Works (TGWTW). There is therefore no net loss of available water downstream.</p> <p>The additional 75 MI/d at Teddington into the TLT is needed due to constraints on volume of flow we can abstract at Hampton intake during drought flow conditions. Each reach of the river Thames has limitations of abstraction and residual minimum flows of the weirs as set out in the LTOA. We have looked at data from 2016 to 2020 of final effluent flow recorded in Mogden STW, for our work we were looking for the reliable minimum flow to</p>	



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		<p>ensure we had sufficient final effluent for the scheme. It was found that the Dry Weather Flow (DWF), during this period was 420MI/d and the Average Daily Flow (ADF) was 494MI/d at the proposed final effluent abstraction location. Though we had to take account of there being potentially no infiltration of groundwater into the sewers in a drought period and therefore the reliably available final effluent is 305 MI/d.</p> <p>Thames Water have experience of operating tertiary treatment plants at our sewage treatment work across our region. We have experience of operating the process types being proposed for Teddington DRA. It is not novel technology and discharging to river is common practice. In addition operating abstractions on the Thames with a similar arrangement is something we already do very effectively. The transfer itself is operated by drawing water out of the tunnel at Lockwood in east London, so this operation would remain unchanged, just the additional input source would.</p> <p>Teddington DRA does not become redundant when later options are implemented and would continue to be utilised throughout the planning period to 2075. Further details on utilisation can be found in Section 11 of the WRMP.</p>	
5171	population and water shortage exaggeration	<p>All growth forecasts used by Thames Water have been produced by ONS or a local authority and we have no reason to consider they have been unduly exaggerated. ONS growth forecast are used for planning purposes across a range of sectors. In the case of local authority plans these are reviewed by Government planning inspectors prior to their approval. The use of these forecasts are required by the Water Resource Planning Guidelines. Given this we consider their use within our plan appropriate and we have a duty to enable the growth with local authority plans by ensuring a secure supply of water for proposed growth to be available.</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>
5171	<p>Financial and Commercial facts: The Thames valley customers pay. Thames Water's shareholders benefit. The water is not for Thames Valley/Oxfordshire at all but is to be sold to Southern Water after sending some to London.</p>	<p>In line with government guidance we have been working in collaboration with the six water companies across the South East, through Water Resources South East, exploring how we can make the best use of our existing water resources and new ways to increase water supply including desalination plants, water recycling systems, new reservoirs, and transfers of water to ensure we can provide a secure and sustainable water supply for customers</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>over the next 50 years. We need to plan ahead now to ensure we can adapt to our changing climate and protect the environment.</p> <p>A number of the new water resources proposed are collaborative, shared resources and would therefore provide water to several water companies. These new water resources schemes, and the investment required, is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p> <p>Specifically in respect of our shareholders, our shareholders are putting money into the business, not taking it out. Our shareholders will subscribe an initial £500 million of new equity this financial year, and we're working with them on plans to provide a further £750 million of equity funding, which will be subject to certain conditions. Our shareholders have not taken a dividend for six years, since 2017.</p>	
5171	<p>I wish to object to the Thames Water Plan for the following reasons:</p> <p>Need: the proposed reservoir is not needed.</p> <p>Environment: it will cause massive environmental destruction and damage. In construction and once it is there. Carbon footprint, loss of diversity.</p> <p>Better Solutions: water transfers, recycling and desalination these are drought resilient and cost effective. In particular, Severn Thames Transfer is the key: start it now!</p> <p>Competence: why should we believe that Thames Water knows how to build such a structure and maintain it, granted their record with leaks/sewage?</p> <p>Risk: flooding has not been assessed, nor has the risk of catastrophic inundation/dam breach.</p> <p>Transparency: the details of the plan are not clear and nor are the costs.</p>	<p>The environmental impacts of the proposed SESRO options have been assessed by Thames Water and presented in both the Strategic Environmental Assessment that accompanies the draft WRMP and also within our Gate 2 submission to RAPID (section 6). This strategic level appraisal of impacts has been taken into account when deriving the best value plan. Furthermore, any future promotion of one of the SESRO options would need to be subject to a formal Environmental Impact Assessment (EIA) and suitable mitigation identified and agreed with regulators before any consent was approved.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial findings at RAPID Gate 2 are that the scheme could result in a slight</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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	<p>Without transparency it is impossible to compare options (e.g. Severn Thames Transfer/reservoir).</p>	<p>betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>Detailed information on the landscape impacts, environmental impacts including biodiversity and heritage impacts, flood risk issues and watercourse impacts (including complete appraisal of the compliance of the scheme under the Water Framework Directive) have been completed as part of our Gate 2 submission to RAPID, and agreed with the Environment Agency.</p> <p>In our Gate 2 submission to RAPID (Table 4.3), we have explained the various measures that we will take to ensure the reservoir is designed, constructed and operated safely. Thames Water has an exemplary record of safety at its existing 59 reservoirs which fall within the remit of the Reservoirs Act 1975. Thames Water also has several comparable reservoirs to the SESRO. King George VI, Queen Elizabeth II, Queen Mary, Queen Mother and Wraysbury all have dam heights of 12-20m and crest lengths of 4.3-6.3km.</p> <p>At between 15m and 25m high, the earth embankments for the proposed SESRO scheme are well within the parameters of other similar schemes in the UK. The British Research Establishment (BRE) Register of UK Dams lists 370 embankments with a height of at least 15m and 105 over 25m. Most embankment dams in the UK are built as impounding reservoirs (i.e., impounding a watercourse, and therefore abutting either valley side). The non-impounding nature of the SESRO does mean that its total crest length is unusually long. However, the length of the dam has no bearing on the maximum stresses within it, which equate to the height, as this defines the scale of the loading induced by the self-weight and the loads applied by the water. A longer dam is typically more likely to encounter variety in the ground conditions which are to support the dam, but the ground conditions at the SESRO site have been found to be highly consistent around the perimeter.</p>	



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		<p>Globally, there is a World Register of Dams maintained by the International Commission on Large Dams, which highlights that there are many dams around the world of comparable or greater scale to the SESRO. Within the 2020 register there are, internationally:</p> <ul style="list-style-type: none"> - Over 1,950 earth embankment dams impounding a reservoir volume of at least 150Mm³ - 121 earth embankment dams with a crest length of at least 10km <p>In an international context the proposals for SESRO constitute a large reservoir but there are many which are larger. Far from being untested, the use of earth embankments of such scale to impound reservoirs is very well established.</p> <p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm³ option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time 	



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		<p>across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West</p> <ul style="list-style-type: none"> The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they’d prefer a new reservoir over other schemes. 	
5172	<p>Thames water discharges sewage regularly into our rivers while making high charges to its consumers, all the while paying vast bonuses to their senior staff. How can we trust our water companies?.</p>	<p>We note your distrust of Thames Water and the water sector. The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders. We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p> <p>The WRMP is a statutory plan specifically focused on water supply, it highlights the challenges we face and sets out the actions we plan to take to maintain the balance between water supply and demand, providing best value for our customers. It therefore does not cover sewage treatment and disposal. We do produce a separate plan, called the Drainage and</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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		<p>Wastewater Management Plan (DWMP) which is focused on what is needed to upgrade and maintain our wastewater assets over the next 25 years. We published the DWMP in spring 2023 and it is available on our website www.thameswater.co.uk.</p> <p>Thames Water's CEO and CFO aren't taking a bonus this year due to the company's performance. Our Remuneration Committee is drawing up a new performance-related pay structure, which will be published later this year. The aim is to better align executive compensation with the priorities of customers and regulators by giving a greater weighting to customer service and environmental performance than financial results. The company is implementing a turnaround plan to transform Thames Water improve its performance for customers.</p>	
5173	<p>I object to Thames Waters plan to build an abstraction plant at Teddington weir, and extract water from the Thames and replace it with treated effluent. There is no evaluation of soil disturbance during construction and the potential for harmful chemicals to be released into the river as a result. The treated effluence will increase the water temperature and also increase the release of the level of compounds such as oestrogen and cocaine, affecting fish, and increasing feminisation in fish.</p> <p>There is no data base established to assess the effect of the plan and previous research as mentioned in the ZSL response indicates that in this river environment the effects of water extraction and replacement will be detrimental. Government policy over a few decades has been successful in improving the environment for flora and fauna, in the Thames, it would be a shame to take a backwards step because it is the cheapest option.</p>	<p>Thank you for your response to the consultation.</p> <p>The development of the scheme design is still at a very early stage, and as such detailed studies on specific construction location have not yet been undertaken because the specific locations of each shaft site and intake and outfall are still being evaluated. Once the design has been confirmed and specific sites known ground investigation work will check for contamination at the location of each scheme element and a mitigation plan developed to prevent the mobilisation of any existing ground contamination.</p> <p>The effect of the recycled water discharge on temperature in the River Thames has been modelled (based on an extensive multi-year dataset) and shows that (when operating) a discharge of 75 Ml/d would see less than a 1°C temperature increase across the majority of the river under the worst-case scenario, which is compliant with the Environment Agency's guidance on thermal discharges. The discharge would not increase the maximum summer temperatures and the river would continue to achieve WFD high status in relation to temperature for salmon.</p> <p>The exact quality of the recycled water is not yet fully determined as trials are being prepared to simulate the new treatment plants effectiveness of treating</p>	<p>No change to the draft WRMP. Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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		<p>the Mogden STW’s final effluent, and specifically in relation to the list of chemicals identified in the Gate 2 report as being a risk. This work is being undertaken in consultation with the Environment Agency who will need to be satisfied as to the quality of the recycled water to then provide Thames Water with a discharge permit.</p> <p>The environmental assessment is supported by an extensive hydrodynamic, water quality, fish and wider aquatic ecology monitoring database delivered by a Teddington DRA specific monitoring programme which commenced in 2020 and augmented by existing Thames Water, Environment Agency and third-party datasets.</p> <p>The scheme will not receive a discharge from the Environment Agency if it will deteriorate the quality of the River Thames. The discharge quality will be better than the existing water in the River Thames and the scheme overall will need to provide biodiversity net gain.</p>	
5174	It is vital to reduce abstractions from chalk streams and other rivers.	Thank you for your support of our Environmental Ambition proposal.	Since our draft plan, we received feedback that it is not acceptable to plan for Environmental Destination reductions to be made after 2050, and as such we have moved our Environment Destination scenarios so that all reductions in our high scenario are made by 2050.
5174	Most important of all, TW should stop discharging untreated sewage into our rivers. Releasing treated sewage into the river will affect water quality and wildlife.	The discharge of untreated sewage is unacceptable, and it’s understandable that the public are demanding that we, and other water companies, improve our performance. Between 2025 and 2030 we will be investing at least £750 million to reduce discharges of untreated sewage to sewers, and over £1 billion to improve treatment processes at our sewage treatment works. At the beginning of the year we published an online map providing close to real-time information about storm discharges from all of our 468 permitted locations and this continues to be updated with information on improvements being made across our region. There are no quick fixes. Population growth	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.



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		<p>will increase the strain on our sewage network and treatment centres. And because of climate change, the south east of England is experiencing heavier downpours, which can overwhelm some sewage treatment works. The scale of the challenge demands systemic reform with a shared undertaking from all stakeholders. We regard all discharges of untreated sewage as unacceptable and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. Thames Water, along with the whole water sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments.</p> <p>The WRMP is a statutory plan specifically focused on water supply, it highlights the challenges we face and sets out the actions we plan to take to maintain the balance between water supply and demand, providing best value for our customers. It therefore does not cover sewage treatment and disposal. We do produce a separate plan, called the Drainage and Wastewater Management Plan (DWMP) which is focused on what is needed to upgrade and maintain our wastewater assets over the next 25 years. We published the DWMP in spring 2023 and it is available on our website www.thameswater.co.uk.</p>	
5174	Thames Water should focus on reducing leaks, increasing metering and encouraging people to use less water.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers'</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand</p>	



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		<p>management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target. Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target. Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Metering targeting Thames Water is implementing a Government-approved compulsory meter installation programme. Similar metering programmes are happening in other water supply regions. We took an industry lead role in opting for smart water meters to increase the leakage and usage reduction benefit. Our installation of smart meters in homes and businesses is already delivering a measurable reduction in usage and water loss across household and business customers, but there is more to do and our plan sets out the completion of the smart metering programme. Already, the vast majority of commercial customers on our network are set up with meters with 18% currently smart metered, increasing to 75% by 2030. Total commercial meter penetration is approx. 90%. By 2034/35, over 80% of the households on our network will be metered, and by 2039/40 this will increase to over 90%. Due to the complexity of older and converted buildings in London and Thames Valley, there will be a small component that will be deemed</p>	



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		unmeterable, however the water use on these sites will be monitored through non-revenue bulk meters.	
5174	I strongly object to the Teddington Direct River Abstraction scheme. I am concerned that this will affect the ecosystem of the river and have adverse effects on wildlife. It could also affect those who swim and use the river for community water sports.	<p>Thank you for your response to the consultation. Protecting and enhancing the river is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups and the wider public, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>As we continue developing the scheme we will refine and provide more details to the public. Further information can be found here https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.
5175	I want to express strong support for the Cotswold Canals SevernThames Transfer option. Water sufficiency is visibly becoming more of a problem and ensuring flexibility of supply in this way makes absolute sense.	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.



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		<p>emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5176	<p>I want to express strong support for the Cotswold Canals SevernThames Transfer option. Water sufficiency is visibly becoming more of a problem and ensuring flexibility of supply in this way makes absolute sense.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>(PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5177	No reservoir !	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, 	We have provided information in response to your comments, there are no changes as a result of your representation.



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		<p>natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes.</p>	
5178	<p>I write in support of the Cotswold Canals SevernThames Water Transfer scheme.</p> <p>-</p> <p>This proposal could provide millions of litres of water per day, transferred from the River Severn to the River Thames via the canal. This scheme has major advantages over more traditional solutions like reservoirs and pipelines. With a restored canal, there is no loss of countryside and less need to keep extracting groundwater in the South East. And it is the most promising way of restoring the whole 36 miles of the ThamesSevern link.</p> <p>-</p> <p>I believe the SevernThames Transfer is also the best value option – one that considers a range of factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and society.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>
5179	<ul style="list-style-type: none"> • Inadequate consultation process: 260 plus question on 27th Feb webinar yet to be answered. Too many of the communities' challenges and questions were 	<p>We note your feedback. Our approach to the consultation was designed to reflect the strategic nature of the draft WRMP and the purpose of the consultation, which is to seek feedback on our proposed water resources</p>	<p>We have provided information in response to your comments, there are no changes to the draft</p>



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	<p>met with the response “it is too early to say”; “the proposal is still at the conceptual stage” ; “we need more data”; ‘we haven’t done that yet”</p>	<p>strategy, not on the detail of individual projects. We recognise there is a lot of interest in the proposed scheme near Teddington and frustration that at this stage we could not fully answer all the questions that were raised, as the work completed to date on the scheme has been to determine the feasibility and conceptual design of the scheme. If the scheme is included in the final WRMP it will then progress through planning and there will be multiple opportunities for scheme-specific engagement and consultation with local communities. We would like to reassure you that we are committed to work openly and transparently with all stakeholders, and community engagement and consultation is an important part of this. We have recently appointed a dedicated engagement manager for the Teddington DRA scheme which will help to ensure we engage effectively with the local community going forwards.</p>	<p>plan as a result of your representation.</p>
5179	<p>We strongly object to the project and respectfully urge you to reject it.</p> <p>The location of this project is a danger to the health of our local community and the environment. Thames Water accepted in their presentations accept they have not done work on this nor taken it into consideration in their proposal. -</p> <p>Large numbers of people use the Teddington reach. It is has one of the densest (people per square metre of Thames) usage of all stretches on the Thames. Sailing, Rowing, Swimming, Paddle Boarding, Canoeing and many other activities bring crowds in the summer and a regular flow of people throughout the year. The wildlife is spectacular and varied. It is the first nontidal stretch of the Thames.</p> <p>It seems utterly bonkers to threaten the health and wellbeing of people when there are much better options available and there are so many reasons not to undertake this project in the proposed location.</p> <p>Our objections</p> <ul style="list-style-type: none"> • Lack of research. Research on water quality implications has not been undertaken. 	<p>The DRA scheme is at a very early stage of development (essentially initial conceptual design) and assessment (risk screening). As the detail of the design is progressed over the next 12-18 months an Environmental Impact Assessment (EIA) will be completed (supported by additional modelling). Engagement has started at this very early stage and will be broadened.</p> <p>The recreational usage of the River Thames in this area is appreciated and a dedicated recreational assessment is being progressed. This will include consultation with the organisations that use the river as the scheme design and assessment progress through 2023-24. With the discharge quality being higher than the current quality of the River Thames and limited velocity or level change, the scheme should not adversely affect recreational users, but this will be fully assessed in 2023-24.</p> <p>A River Users Forum was initiated in April, with a meeting held with local river user stakeholders (17 in total, including the Teddington Blue Tits, Twickenham Rowing Club, Richmond Canoe Club, Twickenham Yacht Club, etc). This forum will meet at key points as the environmental assessment and scheme design progresses during 2023-24.</p> <p>The quality of the water being discharged will need to be higher than the</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<ul style="list-style-type: none"> • The Project will have negative environment impact and people’s health. This method of outfall of treated effluent into a low flow, warmer water environment has unquantified and unknown impact on the river environment: the water, aquatic life and river users. Assessments have concentrated on traditional inorganic chemicals without mention of newer pollutants -residual hormones, antibiotics and chemicals (PFAs). There is recorded research that shows irreparable changes in fish because of such pollutants. - • Alternative options area viable. There are alternative processes for new water, and other locations which could be less invasive and provide greater quantities e.g. -Beckton Desalination, Mogden/Walton scheme. Teddington has been chosen on cost and turnaround time without any evaluation of the environmental and social costs (a point accepted by TW representatives) • The Teddington Reach River Environment has been hard won and protected through community pressure. It is part of the North Riverside Conservation Area and adjacent to the Thames Path. Thames water appear oblivious to this as there is no evidence they have taken into consideration the way the environment is used by those who live in the area. • There is a real and big danger of contamination risk through treatment plant failure causing sewage leakage into the river and also the risk that the infrastructure could be open to use as a “safety valve” to release sewage at times of severe rain and system overload • Thames Water has not revealed information of the continual usage for “sweetening flow’ throughout the year also at times other than drought. They do it elsewhere. They will do it here. • It is unclear how the necessary monitoring and control mechanisms will be put in place to ensure this proposed system is not used more extensively against the standards set by the EA. 	<p>water currently in the river at Teddington, and will not deteriorate river water quality. Water quality monitoring has been undertaken over the last three years, analysing >350 different determinands (including >50 difference PFAS) each month, including at Mogden STW which will provide the source water. Therefore the composition of the source water including PFAS is well understood, and we are now working on the design of the tertiary treatment plant to appropriately treat this (as mentioned above). With this understanding an assessment of the discharge against human health indicators is underway.</p> <p>We have looked at a wide range of solutions to reduce the shortfall between the amount of water we have and the amount we need, including reducing demand, creating new sources of water and improving catchment areas. Working with Water Resources South East (WRSE), an alliance of the six water companies across the South East, we’ve been exploring new ways to increase water supply, including desalination plants, water recycling systems, new reservoirs, and national and regional transfers of water. We’ve assessed every option against a range of criteria, including cost, water output, the time to deliver the scheme, potential impact on the environment, carbon footprint, and futureproofing. Other schemes such as Beckton Water Recycling and Mogden (Walton) Water Recycling continue to be assessed, but at this stage are not being chosen in the regional modelling as the best option to provide water by the 2030s.</p> <p>The recycled water discharged as part of the scheme will be of higher quality than the current quality of the River Thames, so will not deteriorate water quality. There will not be a physical pathway for storm overflows to be discharged through the new discharge. The new Tertiary Treatment Plant at Mogden STW will have live monitoring which will enable diversion of the recycled water back to the head of the plant if water quality approaches the permitted limits. This will all be required as the discharge is not a waste water discharge, and is considered as a ‘Planned Discharge’ by the Environment Agency so will be held to strict standards to protect the environment.</p>	



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	<ul style="list-style-type: none"> • Thames Water’s poor performance means they cannot be trusted with management of this infrastructure in such an environmentally sensitive area. The company was given two stars out of four by the Environment Agency for its performance in 2021, equivalent to “company requires improvement”. It was also given a “red” rating for 12 serious pollution incidents out of a total of 271 during the year. • Thames Water has been widely reported as a company which repeatedly puts shareholder returns before the interests of customers, communities and the environment; this scheme seems to follow this pattern. • Thames Water has no mention of analysis of PFAs, microplastics or pathogens for aquatic life or humans. -There is no comprehensive regulatory frame work for these pollutants <p>This is a summary of our objections and we respectfully urge you to wholeheartedly reject this project.</p>	<p>A maintenance flow will be required for the treatment plant at Mogden, and this could be discharged at Isleworth or Teddington. The details are still being refined, including the volume required. At present we are considering a 25% maintenance flow as worst case, with the likelihood that it will be less. A full environmental assessment of the maintenance flow will be undertaken once details are established.</p> <p>The proposed tertiary treatment plant (TTP) will have real time monitoring of the key water quality parameters on both the input flow (from the final effluent stream at Mogden STW) and the output (advanced treated water) from the TTP prior to conveyance for discharge at Teddington by Thames Water. We will monitor the input flow against the concentrations the plant is design for, if levels are close to exceedance the system will stop feeding the TTP and only recommence when levels are back down. This will ensure the TTP is able to always treat the flow to the required standards. We will also monitor against the discharge permit parameters on the outflow (advanced treated water) prior to passing this forward in the pipeline to Teddington, if levels are close to exceedance of the permit concentrations the flow would be diverted back to the final effluent channel and not passed forward to the pipeline and on to the river. This will ensure that treated water would not pass forward to the river if it close to exceedance of the permit parameters.</p> <p>We are working hard to rebuild trust with our customers but recognise for some, this will take time. In March 2021, Thames Water launched its eight-year turnaround plan to address operational challenges and improve performance and, with one year complete, we have made progress. We have always been clear it won’t be quick or easy, however, the results of the first year are encouraging despite a challenging and changing environment. We all want to see significant improvements quickly but are determined to make the needed changes in a sustainable way to make a real, positive difference for our customers today and into the future.</p> <p>Thames, along with the sector, has made a commitment to cut the total duration of overflows by 2030 by 50% and 80% in most sensitive catchments. We regard all discharges of untreated sewage as unacceptable</p>	



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		<p>and will work with the government, Ofwat and the Environment Agency to accelerate work to stop them being necessary and are determined to be transparent. We are absolutely committed to protecting and enhancing our rivers and the communities who love them, and we want to make these discharges of diluted sewage unnecessary as quickly as possible. The discharges are designed with the knowledge of key regulator and government to happen automatically when, after heavy rain, more flow arrives at a Sewage Treatment Works (STW) than it can treat or store. We cannot control the amount of flow arriving at the works and trying to do so would cause flooding somewhere else, from the sewers backing up. For this reason, many of our STWs are designed so that any surplus above the amount the site is designed to treat is diverted automatically to storm tanks and stored until incoming flows reduce and the works once again has spare treatment capacity. Discharges of untreated sewage only take place when treatment works are operating at full capacity and the storm tanks are full. When that happens, any excess overflows automatically to the river, because there is literally nowhere else for it to go. Water is essential for everyone; we need to take the key decisions now if we are to future proof our water supply. Our dWRMP24 proposes investing to give greater protection against a changing climate and more extreme droughts, as well as improving the environment. Over the past 25 years, we've reduced the amount of water we take from the environment by 134 MI/d and taken steps to protect some of our most sensitive rivers. We plan to reduce abstraction to sustainable levels by 2050, our draft plan proposes taking over 500 MI/d less water from sensitive rivers and waterways, targeting reductions in vulnerable catchments first.</p> <p>Our shareholders are in it for the long -term, and have not taken a dividend for five years (since 2017) to prioritise investment in improving service for customers and to protect the environment. Our shareholders are putting money into the business not taking it out. In June 2022, we announced our revised business plan for 2020 to 2025, increasing our expenditure to £11.5 billion compared to the £9.6 billion in our final determination, supported by new equity. To support the plan our shareholders will subscribe an initial</p>	



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		£500 million of new equity this financial year, and we're working with them on plans to provide a further £750 billion of equity funding, which will be subject to certain conditions.	
5180	I write as a supporter of using the Cotswold canals to transfer water from the Severn to the Thames. Apart from it being a potential solution to a large part of your water needs, it would justify and presumably make certain the restoration of this wonderful amenity, without the need for an unpopular reservoir, or miles of piping. The added value to the countryside, for boaters, walkers, cyclists and nature would, though presumably unquantifiable, surely be immense.	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.
5181	I think it is just plain sense to use the canal for the transport of water to London, no digging up and laying large pipes, no obstruction to traffic or people. Common sense.	Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders	The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full



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		<p>and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	<p>response to the comments we received about the Severn Thames Transfer.</p>
5182	<p>I am against this plan. I already have very little faith in Thames Watr's capacity to effectively manage water retention and maintain consistent quality. The proposal would actually make it more difficult to manage water quality in the river consistently, something which is already failing. Please register my objection accordingly.</p>	<p>Thank you for your response to the consultation. Thames Water acknowledges that it must do more to modernise it's infrastructure and rebuild trust with its customers. We've launched our updated River Health Action Plan which includes details on critical work to deliver over £1bn investment in sewers and sewage treatment works.</p> <p>We're undertaking the largest ever upgrade of the sewers and sewage treatment works in London and the Thames Valley by upgrading more than 250 of our sites.</p> <p>This commitment builds on our recent pledge to double investment in</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our</p>



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		<p>sewage related infrastructure from the previous two years which will reduce storm discharges and pollution incidents. With regards to the proposed Teddington DRA scheme, protecting and enhancing the environment is central to this proposal. Thames Water recognises how important this stretch of the river is for the local community and it's many recreational users. Through consultation with these groups, we hope to work together on ways that we can enhance the river.</p> <p>In addition to this, we are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity surveys. The assessments completed so far have shown that there are some minor impacts, but these are not significant and can be addressed without causing any environmental harm.</p> <p>Following the assessments so far, we have reduced the scheme size to ensure we protect the environment.</p> <p>For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5183	<p>Concerning the WRSE, I wish to provide my support for the CCSTT scheme, and encourage you to support this approach. There is a lack of justification for not pursuing it, and it is obvious that the long term benefits to the area lie with this approach over others. There is so much to be gained from a holistic approach of using the canals to deal with the water shortages in the east of England. The community and economic benefits of the work that Cotswold Canal Trust has carried out already has been incredible, and this can apply to the Thames as well.</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5193	<p>I am concerned about your plan to extract water from the Thames just a few hundred metres from my home, and replace it with treated effluent from Mogden.</p> <p>If you are going to proceed with -this controversial plan, please put the effluent into the river discreetly, under the water at Isleworth Ait. We don't want any kind of structure on the riverbank to remind us of what's going on. And please make the fish and eel screen as tiny as possible -your current plans for a huge structure would deface what's currently a nice riverside.</p> <p>I know, and you do too, that you're frequently breaking the standards set for you, and getting fined. Nobody wants the Teddington scheme to operate like that, so please lets have publiclyavailable information about what you're actually doing. If you break the standards set for you, I want to be able to find out immediately, so that I can phone you and ask you to stop pumping until the defect is sorted out. And, on the subject of standards, the Environment Agency should set standards for you that reflect good practice, not the horrible discharges we currently experience.</p> <p>By the way, sometimes the Thames flows inland toward Kingston; you should know that already.</p>	<p>Thank you for your comments.</p> <p>As we develop Teddington DRA further we will undertake assessments and build in mitigation to minimise any potential effects. Our initial environmental appraisal shows there is a low risk of significant environmental impacts but we acknowledge that more work is still required to fully assess the scheme. As we develop the design we will ensure the infrastructure is as discrete as possible and has the least effect on people and the environment. It should be noted that any scheme will need to compile with a range of legislation and best practice which in some cases will govern the size of some of the development however we have opportunities within the design to include planting and landscaping to best reflect the surrounding environment, provide screening and opportunities for environmental and biodiversity net gain.</p> <p>We are still to define fully the water quality monitoring protocols for the scheme. In part this will depend on the requirements set by the Environment Agency, however, extensive monitoring will be built into the treatment plant to ensure the recycled water meets the required standards for discharge. We will also design in fail safe measures to automatically stop a discharge reaching the freshwater Thames should any aspect fail to meet the set standard. In addition, we envisage an in-river monitoring programme when a</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>I know you have to plan for climate change, but your plans should be more considerate of the people and creatures that live here.</p>	<p>scheme is operational with the details to be developed once discharge limits are set.</p> <p>We are aware of tidal incursion above Teddington Weir on certain tides. Operational protocols for Teddington DRA would ensure safeguards would be built into the scheme whereby we would monitor tidal levels downstream of the weir and stop abstracting when there is a risk of spring tides backflow over the weir and for a period of time after to allow freshwater to flush out the brackish flow. Tidal overtopping of Teddington weir would therefore have no operational impact on the scheme.</p>	
5194	<p>I attended the public consultation at York House Twickenham on 3 March 2023.</p> <p>I found the display panels professional and informative, however i have these comments</p> <p>1. Almost unforgivably none of the maps had scale bars; this is an elementary omission which certainly needs to be corrected</p> <p>When all is said and done, I think a succinct summary board at the end of the display would have been helpful.</p>	<p>Thank you for your feedback and your points are noted.</p>	<p>We have provided information in response to your comments, there are no changes to the draft plan as a result of your representation.</p>
5194	<p>I was left unclear as to the likelihood of each of the three main components of ensuring water supplies, would actually take place. Each was called an option which implies either or' I was left wondering.</p> <p>It was clear that the Teddington scheme is the highest priority. I was disappointed that alternative schemes (such as recycling at Beckon) were perfunctorily dismissed as 'more expensive'. This is hardly a balanced 'cost/benefit' statement.As to a new reservoir in Oxfordshire, surely that is the only 'option' that guarantees an increase in 'stockpiled water, the other 'options' only deal with the natural flow of wat and are dependent (don't count on it) of a secure supply of electricity from the grid -I this as a vulnerability.</p>	<p>Thank you for your response to the consultation.</p> <p>We've looked at a wide range of potential solutions – both measures to manage demand for water and provide new water supplies. We'll need a combination of measures to address the shortfall.</p> <p>WRSE has considered over 2,000 options including water transfers, desalination, reusing treated wastewater, reservoirs and catchment schemes - all are viable, potential options which could form part of an overall plan for the South East.</p> <p>Work to date on all water recycling schemes has been based around the expectations and objectives set by RAPID and has focussed on preparing a</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>



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	<p>Finally the water transfer from the Severn to the Thames catchment areas relies on the Oxfordshire reservoir being in existence. It seems to me this reservoir is therefore even more important than the Teddington project. If and when the Teddington project is planned in more detail, I suggest as a user of the river, that local groups (not their national representatives) are consulted. I'm thinking of Twickenham Yacht Club, Twickenham Young Mariners, Skerries for Schools, Richmond Bridge Boat Club, Richmond Canoe Club, etc. When all is said and done, I think a succinct summary board at the end of the display would have been helpful.</p>	<p>concept design for schemes and undertaking an environmental appraisal to understand potential environmental risk. This level of information has allowed Thames Water to demonstrate that the Teddington DRA scheme is a viable and feasible scheme for providing a new source of raw water and therefore appropriate to be included within its latest Water Resources Management Plan (WRMP). Once the WRMP is finalised the scheme can progress through the planning process whereby Thames Water will seek a Scoping Opinion from local authorities and complete a full Environmental Impact Assessment (EIA) alongside holding dedicated scheme consultation prior to submitting a planning application in several years' time.</p> <p>We will work closely with local planning authorities as we develop the scheme, and we are in the process of setting up Planning Performance Agreements with each local authority that the scheme interacts with to allow for pre-planning advice.</p> <p>The Teddington DRA scheme has been selected as a best value option through the Water Resource South East regional model. Best value has been determined through the analysis and modelling of cost, resilience, environmental and customer preference metrics. Full details of the methodology used to determine best value can be found on the WRSE website at the following link - https://www.wrse.org.uk/media/3oah3rep/wrse-best-value-planning-method-statement-december-2022.pdf</p> <p>The Beckton Advanced Recycling Plant is still considered viable but is expected to cost 2 to 3 times more than Teddington DRA and have a larger carbon footprint and environmental impact. As a potential solution which could form part of an overall plan for the South East, it remains an option on our adaptive pathway.</p> <p>The SESRO reservoir is a key part of the plan as you correctly state. We are developing SESRO in collaboration with Affinity Water to provide water to people across the South East, including customers of Southern Water. A 100 million metres cubed (Mm3) reservoir would provide 185 million litres of</p>	



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		<p>water per day, supporting a regional network that serves 16 million customers.</p> <p>The Severn to Thames transfer (STT) is not dependant on SESRO and can exist as a standalone scheme. By augmenting flow in the River Thames it helps maintain river health and enables continued abstraction at existing locations during times of drought and water stress.</p>	
5195	I know you have to plan for climate change, but your plans should also be considerate of the people and creatures that live here	Thank you for your comments, in our planning we have looked to determine a plan which balances cost, emissions, and environmental impacts. For all schemes which are progressed, we will look to minimise and mitigate negative impacts where possible.	No changes as per our consideration
5195	PS Do please get on ith fixing the leaks in your pipes that would be much nicer!	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our 2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p>	
5195	<p>I am concerned about your plan to extract water from the Thames just a few hundred metres from my home, and replace it iwth effluent from Mogden. I don't just live here, i also like to take the family out on the Thames as often as possible.</p> <p>If you are going to proceed with this controversial plan, please put the effluent</p>	<p>Thank you for your comments.</p> <p>As we develop Teddington DRA further we will undertake assessments and build in mitigation to minimise any potential effects. Our initial environmental appraisal shows there is a low risk of significant environmental impacts but we acknowledge that more work is still required to fully assess the scheme.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low</p>



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	<p>into the river discreetly, under the water like at Isleworth Ait. We don't want any kind of structure on the riverbank to remind us of what's going on. And please make the fish and eel screen as tiny as possible -your current plans for a huge structure would deface what's currently a nice riverside.</p> <p>I know, and you do too, that you're frequently breaking the standards set for you, and getting fined. Nobody wants the Teddington scheme to operate like that, so please let's have publiclyavailable information about what you're actually doing. If you break the standards set for you, I want to be able to find out immediately, so that I can phone you and ask you to stop pumping until the defect is sorted out. And, on the subject of standards, the Environment Agency should set standards for you that reflect good practice, not the horrible discharges we currently experience.</p> <p>By the way, sometimes the Thames here flows inland towards Kingston; you should know thatI know you have to plan for climate change, but your plans should be more considerate of the people and creatures that live here.</p>	<p>As we develop the design we will ensure the infrastructure is as discrete as possible and has the least effect on people and the environment. It should be noted that any scheme will need to compile with a range of legislation and best practice which in some cases will govern the size of some of the development however we have opportunities within the design to include planting and landscaping to best reflect the surrounding environment, provide screening and opportunities for environmental and biodiversity net gain.</p> <p>We are still to define fully the water quality monitoring protocols for the scheme. In part this will depend on the requirements set by the Environment Agency, however, extensive monitoring will be built into the treatment plant to ensure the recycled water meets the required standards for discharge. We will also design in fail safe measures to automatically stop a discharge reaching the freshwater Thames should any aspect fail to meet the set standard. In addition, we envisage an in-river monitoring programme when a scheme is operational with the details to be developed once discharge limits are set.</p> <p>We are aware of tidal incursion above Teddington Weir on certain tides. Operational protocols for Teddington DRA would ensure safeguards would be built into the scheme whereby we would monitor tidal levels downstream of the weir and stop abstracting when there is a risk of spring tides backflow over the weir and for a period of time after to allow freshwater to flush out the brackish flow. Tidal overtopping of Teddington weir would therefore have no operational impact on the scheme.</p>	<p>risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5197	<p>The Teddington DRA is a misnomer as the scheme impinges on Ham lands rather than Teddington. This is potentially misleading for stakeholders and I would suggest a change of name for future plans/consultations. If the effluent from the tertiary treatment at Mogden STW will be fit to be added to the water in the River Thames, why will it not be fit to be added directly to the river water flowing in to the exiting tunnel to the Lee Valley? Such a direct approach would</p>	<p>Thank you for your comments.</p> <p>Transferring recycled water directly to the east London reservoirs is technically feasible however, there are a number of challenges to overcome which make this less favourable than the schemes currently within the Water Resource Management Plan.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as</p>



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	<p>avoid engineering works impinging on the River Thames and a lot of associated tunneling/Pipework has such an option to be assessed.</p>	<p>These are,</p> <ol style="list-style-type: none"> 1) The recycled water would require full advanced treatment, as there would be a limited environmental buffer before the water is treated and put into supply for our customers as drinking water. For Mogden Water recycling this is the concept, however for Teddington DRA it would require significant new infrastructure which would require new land away from Mogden Sewage Treatment Works. This increases cost and environmental impacts. 2) The existing Thames Lee Tunnel would not exclusively be used for recycled water and is used to transfer raw river water from Hampton to East London. This would result in periodically a change in the water blend reaching the reservoirs or water treatment works which may create operational difficulties. 3) Full advanced treatment is complex and an energy intensive process that would have higher environmental and carbon impacts when compared to the current technologies associated with the Teddington DRA scheme. Full treatment would also need to be undertaken twice, once near Mogden STW for the water that would go to the reservoirs, and secondly because the transfer is not exclusive and water would mix with raw river water in the TLT and reservoir water it would need to be fully treated again within the water treatment works. 	<p>such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5198	<p>I am concerned about your plan to extract water from the Thames just a few hundred metres from my home and replace with treated effluent from Mogden. I don't just live here, I also like to take the family out on the Thames as often as possible.</p> <p>If you are going to proceed with this controversial plan please put the effluent into the river discreetly, under the water like at Isleworth Ait. We don't want any kind of structure on the riverbank to remind us of what's going on. And please make the fish and eel screen as tiny as possible. your current plans for a huge structure would deface what's currently a nice riverside.</p> <p>I know and you do too, that you're frequently breaking the standards set for you,</p>	<p>Thank you for your comments.</p> <p>As we develop Teddington DRA further we will undertake assessments and build in mitigation to minimise any potential effects. Our initial environmental appraisal shows there is a low risk of significant environmental impacts but we acknowledge that more work is still required to fully assess the scheme. As we develop the design we will ensure the infrastructure is as discrete as possible and has the least effect on people and the environment. It should be noted that any scheme will need to comply with a range of legislation and best practice which in some cases will govern the size of some of the development however we have opportunities within the design to include planting and landscaping to best reflect the surrounding environment,</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>

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	<p>and getting fined. Nobody wants the -Teddington scheme to operate like that, so please let's have publiclyavailable station, shout what you're actually doing, if you break the standards set for you, I want to be able to find but immediately so that I can phone you and ask you to stop pumping until the defect is sorted out. Ahid, on the subject of standards, the Environment Agency should set standards for you that reflect good practice, not the horrible discharges we currently experience.</p> <p>By the way, sometimes the Thames here flows inland towards Kingston; you should know that already. I know you have a plan for climate change, but your plan should be more considerate of the people and creatures that live here.</p>	<p>provide screening and opportunities for environmental and biodiversity net gain.</p> <p>We are still to define fully the water quality monitoring protocols for the scheme. In part this will depend on the requirements set by the Environment Agency, however, extensive monitoring will be built into the treatment plant to ensure the recycled water meets the required standards for discharge. We will also design in fail safe measures to automatically stop a discharge reaching the freshwater Thames should any aspect fail to meet the set standard. In addition, we envisage an in-river monitoring programme when a scheme is operational with the details to be developed once discharge limits are set.</p> <p>We are aware of tidal incursion above Teddington Weir on certain tides. Operational protocols for Teddington DRA would ensure safeguards would be built into the scheme whereby we would monitor tidal levels downstream of the weir and stop abstracting when there is a risk of spring tides backflow over the weir and for a period of time after to allow freshwater to flush out the brackish flow. Tidal overtopping of Teddington weir would therefore have no operational impact on the scheme.</p>	
5199	<p>I object to the plan for a reservoir near Steventon as it is not the best plan for an improved water supply. New water from the Severn could be enough and should be supplied by pipeline.</p> <p>The expanse of water proposed would have a deleterious effect on the atmosphere my light would be reduced, view spoiled and an increased likelihood of flooding</p>	<p>The inclusion of SESRO in the plan is reflective of the fact that this drives the overall best-value plan for the South-East. It provides a new source of water for the South-East by providing the storage for excess winter flows in the River Thames, to enable them to be converted into potable supplies during lower flow periods. In effect this is a new source of water during lower flow summer periods that would otherwise not be available for use.</p> <p>The draft WRMP24 plan required the Severn to Thames Transfer (STT) to be ready by 2050, after Teddington Direct River Abstraction and SESRO. For the revised draft WRMP24 plan we have selected the SESRO 150 Mm3 option from 2040 as the best value solution to the adaptive planning problem that we face. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best</p>	<p>We have provided information in response to your comments, there are no changes as a result of your representation.</p>



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		<p>Value Plan. Our work has shown that a new reservoir is a better option than a transfer from the River Severn, as it is:</p> <ul style="list-style-type: none"> • Less expensive overall, with lower running costs; • Is more resilient - in a drought, it's hard to predict exactly when we'll need extra water supplies. The lead time to get water from the west of the country would be between three and four weeks, whereas it would be readily available from the reservoir and it is more resilient to our changing climate; • Forecasts suggest we'll see more droughts occurring at the same time across the whole country, so when the South East is in drought, the water for the transfer may actually be needed by customers in the Midlands and North West • The reservoir also has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer. This is why many customers tell us they'd prefer a new reservoir over other schemes. <p>The Severn to Thames Transfer (STT) is no longer required from 2050 in the revised draft WRMP24 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. We will however continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated. In relation to the Severn Thames Transfer, we have collated and summarised responses in the Statement of Response Technical Appendices Appendix J.</p> <p>The SESRO options will result in areas of existing floodplain being removed. In line with prevailing legislation and best practice, this would be mitigated through the development of level-for-level floodplain compensation, as part of the reservoir proposals. This would be designed to ensure that the flood risk to areas upstream and downstream was not worsened by the SESRO proposals. All such work would need to be reviewed and agreed by the Environment Agency before consent for the scheme is allowed. Our initial</p>	



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		<p>findings at RAPID Gate 2 are that the scheme could result in a slight betterment to the flood flows passing downstream to Abingdon and negligible impacts on groundwater flooding. This will be subject to further modelling, appraisal and scrutiny as the design progresses.</p> <p>As noted in our Gate 2 submission to RAPID (section 3 and Figure 3.1), we have developed an Indicative Master Plan for the largest SESRO option. As stated in that document, this is to "provide a first illustration of how the engineering requirements of the scheme may be integrated with the expected environmental mitigation and with possible recreational uses of the site...This vision will be subject to change and refinement if SESRO progresses through scheme promotion, through future consultation, environmental assessment and associated design iterations, but provides an initial overview of how the largest SESRO option could be conceptualised." This indicative master plan, and the associated costs, impacts and benefits is based upon a scheme that could enable extensive recreational activity including terrestrial footpaths and bridleways, controlled water-based recreation (e.g. sailing club), a visitor centre, a small education centre and a cafe facility. None of these aspects has been designed in detail at this early stage, but all are included in the concept design at this stage, integrated with the required engineering and environmental mitigation works. Local and regional opportunities: The reservoir has the potential to provide a wide range of economic, social and environmental opportunities – boosting biodiversity, natural capital and recreational benefits beyond those that can be offered by the water transfer.</p>	
5281	<p>I and my family live near the river in St Margaret's, keep a boat at Hammertons Ferry, have 3 young boys at the Petersham and Ham Sea Scouts, and are members of The Lensbury.</p> <p>This currently unspoilt area on the Thames is a real area of natural beauty, following on from the section of river which runs through Richmond and forms part of the protected view down from Richmond Hill. It is an area enjoyed by so many people of all age groups. People travel specially from far and wide to enjoy the particularly scenic section of the river from Hampton Court to Richmond.</p>	<p>We are still to define fully the water quality monitoring protocols for the scheme. In part this will depend on the requirements set by the Environment Agency, however, extensive monitoring will be built into the treatment plant to ensure the recycled water meets the required standards for discharge. We will also design in fail safe measures to automatically stop a discharge reaching the freshwater Thames should any aspect fail to meet the set standard. In addition, we envisage an in-river monitoring programme when a scheme is operational with the details to be developed once discharge limits are set.</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our</p>



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	<p>The river is at the heart of the area, drawing in tourists and locals alike and boosting trade for the pubs and cafes There are a large number of sailing clubs, kayak and canoe clubs, especially aimed at young people. There are also dragon boat racers, paddle boarders, dog walkers, swimmers, fishermen and bird watchers. All enjoy being either in, on or by the water.</p> <p>The new water abstraction proposal is utterly abhorrent. It would be an enormous mistake to go ahead with a scheme where you are dramatically reducing the water quality. Any intervention, especially on this scale, is bound to cause untold damage to wildlife and the natural environment.</p> <p>It has taken years and years for the Thames to be used more widely for fitness and pleasure after its industrial past. Especially since covid people have realised how many options the river provides for wellbeing and fitness. This proposal will cause a huge turn around in thinking. No one will swim or feel safe to go into the water. The sailing clubs will loose business. The youth will loose out particularly with the knock on affect of the loss of facilities. Tourism will suffer. People's health will be physically and mentally affected.</p> <p>There are other far more sensible plans which could be chosen at a slightly higher monetary cost, but a FAR reduced environmental cost. I urge you to reconsider as the progression of this proposal would be a TRAGEDY.</p>		<p>preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5283	<p>Water transfer seven to Thames:</p> <p>Surly this would be a double win for the country without scaring the landscape by using what our forefathers put in place.</p> <p>With a massive Benefit to everyone who would enjoy the fully restored canal & the Country by being able to control water supplies. Win Win</p>	<p>Thank you for your response to the consultation, your points are noted. We have been investigating the options for the Severn Thames Transfer (STT) for many years with regulators, other interested water companies, stakeholders and the public. During this time we have shared the findings at community events and published various reports. In November 2022 we published updated feasibility and concept design reports for the RAPID Gate 2 process. As part of this submission our assessment of the conveyance options from the River Severn to the River Thames concluded that the water transfer would be best delivered by a direct pipeline.</p> <p>For our draft WRMP the STT was selected from 2050, after Teddington</p>	<p>The STT is no longer in the plan. Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>



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		<p>Direct River Abstraction and the Abingdon reservoir (SESRO), as a regional WRSE/WRW solution. Our decision to promote construction of SESRO ahead of STT was based on the assessment that plans in which the STT was used in place of SESRO were more expensive, resulted in more carbon emissions, and did not deliver the same environmental or resilience benefits; particularly under severe future scenarios. For the revised draft WRMP we have selected Teddington Direct River Abstraction in 2033 and SESRO 150 Mm3 in 2040 to provide security for the regions supplies. The STT is no longer required from 2050 due to the updated requirement in the Water Resources Planning Guidelines to reduce average per capita consumption (PCC) to 110 l/h/d by 2050. For detail on the selection of options in the preferred plan please refer to Thames Water rdWRMP24, section 11 – The Overall Best Value Plan. We will continue to develop the STT as an adaptive option to mitigate the risks that SESRO could not be developed, or if government water efficiency policies do not reduce demand (or PCC) to the levels anticipated.</p> <p>Please refer to the Statement of Response Appendix J for our full response to the comments we received about the Severn Thames Transfer.</p>	
5284	you need to look outside the needs of the shareholders	<p>The purpose of our WRMP is to ensure we can continue to provide a secure and sustainable water supply to our customers over the next 50 years, whilst protecting the environment.</p> <p>Investment in new water infrastructure is likely to follow the success of Thames Tideway Tunnel, which is being constructed by a new, competitively tendered Infrastructure Provider, from which our shareholders do not profit.</p>	We have provided information in response to your comments, there are no changes to the plan as a result of your representation.
5284	I am concerned about the water shortage and I understand that you need to look into options to mitigate water shortages and do some meaningful campaigns to save water, raise awareness for others to save water. Find another way to mitigate water shortages that doesn't impact the environment.	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Household water use and the national target Between draft and final plans the government have confirmed that the national target for per capita consumption of 110 litres per day should be applied at company-level. As such our revised draft plan will hit this target.</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>Our revised plan will clearly outline how our water company-led interventions such as smart metering, water efficiency and customer engagement will contribute to the overall 110 target agenda, plus outline how Government policy, future regulation and wider non-water-company action is required to meet the target.</p> <p>Please also note that the household usage target of 110 l/h/d does not include leakage values, property and distribution pipework leakage are both removed prior to this figure. This is purely a measure of household customer use.</p> <p>Water tariffs and high users Plans to pilot and introduce new innovative tariffs to both domestic and commercial customers are being considered at this time. This is in the early stages, however we want to make sure that vulnerable customers and efficient users of water are protected from bill increases. Any future innovative tariff would aim to provide greater protection to vulnerable customers and disincentivise excessive water use with potential increased water costs.</p> <p>Any design and testing of innovative tariff structures may also consider variable tariffs for the dry summer month periods to help reduce peak water demand.</p> <p>Education and campaigns to promote water efficiency Both small-scale (smarter home/business visits) and large-scale (advertising campaigns) educational campaigns are being considered for the future. These have been considered within our demand management programme, with the former utilising smarter home and business visits to educate customers on water efficiency and prevention of wastage. For the latter, media campaigns are considered as part of our wider household innovation.</p> <p>"Intensive area based media campaigns are designed to raise awareness about water resources and water efficiency solutions in specific locations throughout our supply area.</p> <p>In dWRMP24, we revisit these campaigns to provide more focus to link water</p>	



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		<p>savings with environmental value and protection in the local area and include the promotion of local activities to help save water. Media campaigns in the shorter term will raise awareness of all Water Efficiency activity and assist to increase the take up of our specific water saving initiatives."</p>	
5284	<p>In response to the plans for Thanks water abstraction -I would like to express my concern regarding the damage that this would do to river life.</p>	<p>Thank you for your response to the consultation. Protecting and enhancing the river environment and ecology is central to this proposal. We are working closely with the Environment Agency, Natural England, the Drinking Water Inspectorate and the Port of London Authority as we develop our proposals. This includes assessing a range of factors including water level, velocity and water quality as well as ecology and biodiversity. The assessments completed so far have shown there is a low risk of significant environmental impacts and where required we would include additional mitigation measures to protect the river, its wildlife and the people that use it. Further surveys, modelling and assessments will take place through 2023 and 2024, including studies on wider issues including noise and air quality. This work will be scrutinised by local planning authorities and the Environment Agency and included in future scheme consultation events and an Environmental Impact Assessment (EIA) which will form part of any future planning application. For further information on the proposed scheme, please visit https://thames-wrmp.co.uk/new-water-resources/teddington-river-abstraction/</p>	<p>Teddington DRA is selected by WRSE as offering best value to customers and provides a viable new source of water during periods of drought. Work to date shows the scheme poses a low risk to the environment and river users and as such the scheme should remain one of our preferred schemes in our Water Resource Management Plan while further work is undertaken.</p>
5293	<p>The south east needs more water. More people, hotter, drier summers and a constant risk of shortages</p>	<p>Thank you for your comments - we agree that action is needed to overcome the challenges that we are facing.</p>	<p>Our revised programme (Section 11) details how we will ensure resilient water supplies in the face of climate change</p>
5293	<p>This project should have been done years ago. It should be a priority now for the future Please build it</p>	<p>We note your response and recognition of the need to make decisions on our future water supply now if we are to cope with our changing climate and protect the environment.</p>	<p>We have provided information in response to your comments, there are no changes to the plan as a result of your representation.</p>



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5293	We need to plug leaks but we also need storage of water in wet times to cover the droughts	<p>Thank you for responding to our draft water resources management plan, we have reviewed your responses and will be using these to inform our final plan. Responses are also collated and summarised within our Statement of Response document.</p> <p>Leakage targeting Reducing leakage is a priority for us. Right now, around 24% of the water put into our distribution network is lost through leaks from our own network of pipes and our customers' pipes. We know it's not acceptable to be losing so much precious water and we're investing significantly to tackle this. The weather conditions during 2022/23 have challenged us operationally and we're not where we'd like to be on leakage. The hot and dry summer last year created an unprecedented 'soil moisture deficit'. As the ground dried out, our pipes and our customers' pipes moved and cracked, leading to an increase in leakage. Large increases in demand, as much as 50%, led to increases in unmeasured consumption impacting leakage further as we pumped more water through our pipes. We've estimated that this event increased our leakage position by at least 10%.</p> <p>In the month of December, we experienced the coldest days since the 'Beast from the East' in 2018. Daily minimum temperatures fell widely to between minus five degrees Celsius and minus ten degrees across the United Kingdom on several nights. The freezing temperatures caused the water in our pipes to freeze and expand. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours. This rapid increase in temperature meant that our pipes thawed quickly, which caused them to move and crack, heavily impacting our leakage performance with a 37% increase in operational reported leakage and an increase of more than 1,000 visible burst mains. However, in terms of risk to customer supply we recovered quickly, avoiding major losses of service to customers, because of increased resource we had in place from the summer drought.</p> <p>To get us back on track we're making changes to the way we work but the significant impact of these weather events on leakage means we will miss our</p>	Our demand management and leakage reduction proposals have been extended in our revised draft plan.



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		<p>2022/23 leakage target. We have formally reported on our 2022/23 year-end performance in July. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Despite this we remain committed to doing everything we can to achieve our regulatory target to reduce leakage by 20.5% by 2024/25. We're currently fixing more than 1,000 leaks per week across our network meaning that, on average we're fixing a leak every 10 minutes, 24 hours a day.</p> <p>Our goal of reducing leakage by 50% by 2050 (from 2017/18 levels) is already ambitious and operationally challenging. We have examined scenarios that sees the targets delivered sooner (and later), but the need is such that demand management and resource development have to proceed in parallel.</p> <p>Additionally, while it is true that our plans with regards to London demand management are more intensive than other areas, this is driven by the comparatively large potential for leakage reduction. We acknowledge that we need to take great care that other areas are not falling behind in our efforts.</p> <p>Water source and storage options We have assessed a number of new water sources and storage solutions for our current WRMP. We have put forward what we consider to be the best plan based on a best value balance of cost, environment and resilience. We have used adaptive planning to make sure that the plan we have selected is sufficient for a wide range of futures. We will continue to monitor the situation and will react to changes in our forecasts to ensure supply.</p>	



