



Keeping water flowing for the future

A summary of our response to the consultation on our draft Water Resources Management Plan 2024:

A plan to provide a secure water supply for our growing population, protect against the growing risk of drought and water shortages and improve the environment

August 2023



Our water resources are under pressure from our growing population, changing climate and the need to protect and improve the environment.

We're developing a long-term plan that sets out what we need to do and where we need to invest to make sure your water supply is resilient and sustainable for the next 50 years. This plan is called our Water Resources Management Plan 2024 (WRMP24).

In December 2022, we published our draft WRMP24 (dWRMP24) for public consultation and asked for your feedback. The public consultation closed in March 2023. We'd like to thank everyone who took the time to respond.

Since the close of the consultation, we've been reading all the responses we received from stakeholders and customers. We've incorporated new requirements from the government and our regulators plus updated information about individual schemes such as costs, delivery dates and environmental information.

We've also continued to work with other water companies across the South East under the umbrella of Water Resources South East (WRSE) to develop our plans.

The purpose of this document is to provide an overview of what you told us and how we've improved our draft WRMP24 in response to your feedback, new information and policy requirements.

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It's everyone's water

Water is essential for everyone – for society, the economy and our environment.

Every day, we supply more than 2.6 billion litres of top-quality drinking water to over 10 million household customers and 216,000 businesses across London and the Thames Valley. It's our purpose to deliver this essential service so our customers, communities and the environment can thrive.

As the number of people living in our area grows, we need to keep more kettles boiling, public services operating, washing machines spinning, showers running and more, so every drop is more precious than ever. We're also feeling the impacts of climate change, which means we need to find new ways to adapt to our changing world.

All this must happen while we protect our environment by reducing the amount of water we're taking from some of our local rivers and streams.

Through Water Resources South East (WRSE), we're working with the other five water companies that supply drinking water across the South East to develop a regional plan that addresses the climate and environmental emergency facing our water environment and to secure the region's future water supplies. [Read more about WRSE and the regional plan here.](#)

Our Water Resources Management Plan (WRMP) reflects this regional plan and sets out the challenges we face and the actions we'll take to continue delivering life's essential service for all our customers, while caring for our environment, over the next 50 years.

Our society



- We all need water for everything from drinking, cooking, cleaning and washing to flushing the toilet, watering green spaces and doing the laundry
- Across London and the Thames Valley, we get through around 2.6 billion litres every single day
- We forecast that we'll need an extra 1 billion litres of water every day for our customers by 2075

Our economy



- With nearly as many businesses as the rest of the UK put together, the South East makes up around 37% of the national economy
- As a water company in the South East, we contribute billions by supplying water (and energy) to industries as well as by investing in infrastructure and jobs
- Not having enough water to go around would cost London's economy alone around £500 million each day

Our environment



- Our rivers sustain entire ecosystems and are home to over three million species of plants and animals
- Our nature reserves and reservoirs provide green spaces to relax, unwind and enjoy
- With over 20% of the UK's chalk streams in our area, it's our responsibility to take care of them as part of our operations

The planning challenge

We forecast that we face a shortfall of over 1 billion litres of water every day for our customers in the next 50 years – enough to fill around 400 Olympic sized swimming pools.

The main factors that affect how much additional water we'll need in the future are:

- a growing population
- a changing climate
- the need to provide increased resilience to droughts
- reductions in the amount of water we take from rivers and groundwater to improve the environment

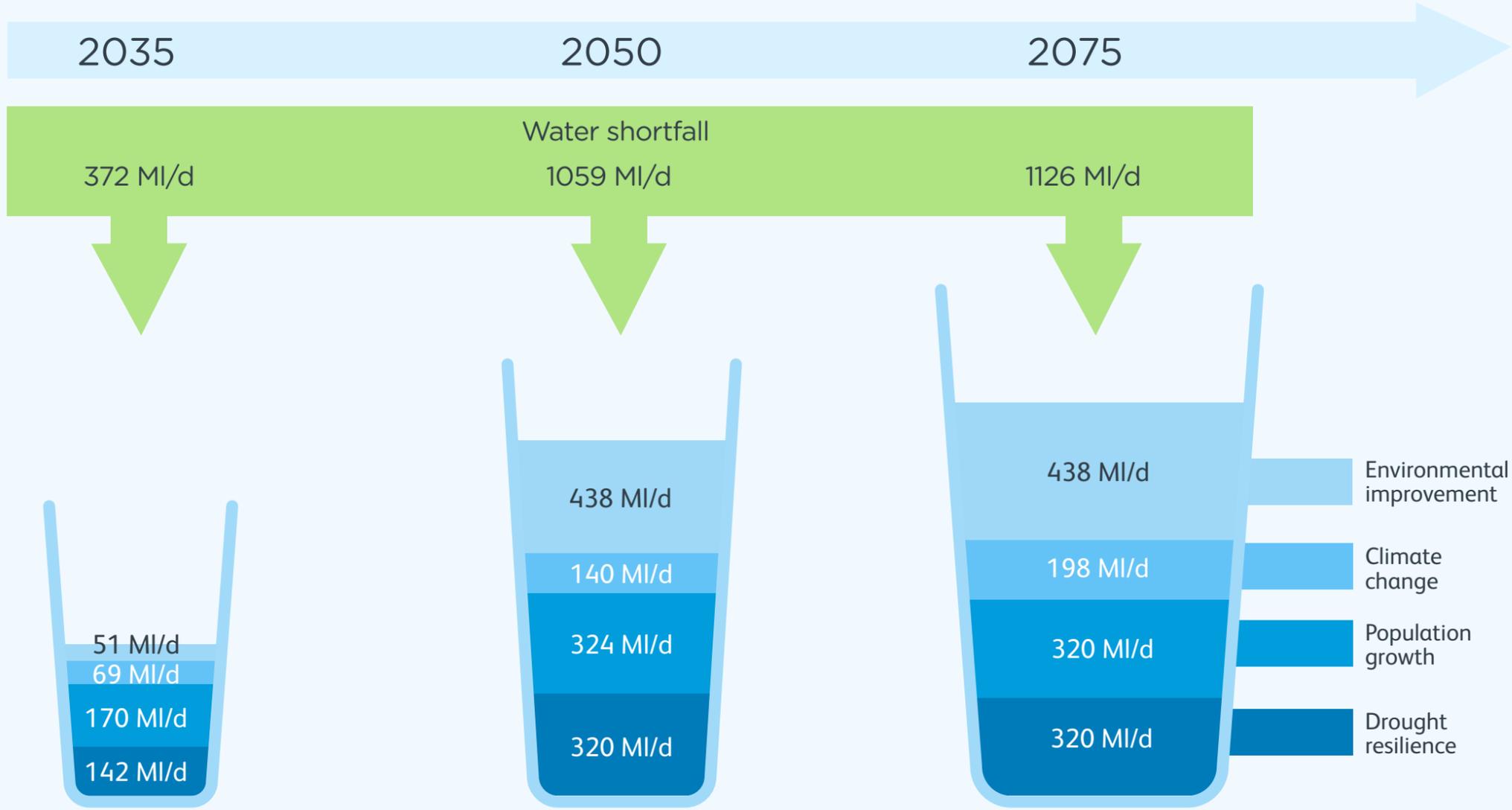
This is a huge challenge that we're taking very seriously.

What is a MI/d?

It's a million litres of water every day
- enough to fill **2,500** baths



With WRSE, we've prepared nine possible pathways that enable us to adapt to varying population levels, climate change impacts and levels of protection for the environment. The reported pathway in our adaptive plan is one of these nine pathways, which is compliant with regulatory guidelines. We forecast that we'll need an additional 372 MI/d of water in 2035, 1059 MI/d in 2050 and over 1,000 MI/d by 2075 to address the future challenges in our reported pathway.



The planning challenge takes account of other factors in addition to the four main challenges. This is why the overall water shortfall is not the same as the sum of the four challenges shown in the diagram.

Engaging with you

During the development of the draft regional plan and our draft WRMP24, we undertook a wide-reaching engagement and consultation programme to give everyone the chance to input. This included a consultation on the technical methods, growth forecasts, environmental ambition and the range of supply and demand options considered in our plan as well as feedback opportunities for the emerging draft regional plan. We also carried out research with customers and businesses.

On 13 December 2022, we published our draft plan for public consultation. We promoted the consultation through lots of different channels to raise awareness and encourage everyone to provide their feedback. We also asked for feedback from our customers through a managed research forum and survey. The consultation was open for 14 weeks and closed on 21 March 2023.

We received 1,687 responses to the consultation from a wide range of local, regional and national stakeholders.

Thank you so much for taking the time to take part in the public consultation. Here's a summary of the consultation process and the responses we received.

About our consultation

We reached out to over **2,000** stakeholders



We setup a dedicated consultation website thames-wrmp.co.uk



We held community events and webinars
Over **1,500** people attended

We sought views from our customers



1,300 households

400 businesses



We received over **1,680** responses



522 written



1,165 online

These included:

9 Government bodies

28 Local government organisations

42 Community groups

4 River catchment partners



What you told us

This document sets out what you told us and how we've changed our draft WRMP24 in response to your feedback, new information and policy requirements.

In this document, you'll find summaries of:

- the topics that you raised in your responses to the public consultation on our draft plan
- the changes we've made to the draft plan in response to your feedback as well as the feedback from our customers, updated information on solutions and our response to new government policies and revised regulatory guidance

We heard back from a wide range of stakeholders, including regional and local government, parish councils, members of parliament, environmental organisations, local community organisations, campaign organisations, trade bodies and individuals.



The most common topics raised in the responses were:



Forecasts of population growth

Topic

London and the Thames Valley is one of the most densely populated parts of the country, and the number of people living and working here continues to grow.

Working with WRSE, we developed forecasts for how the population across the South East is likely to change over the next 50 years using data from local authorities and the Office for National Statistics (ONS).

What you said

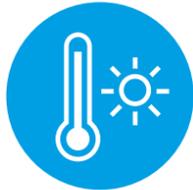
Some consultees challenged the forecasts, arguing that levels of future growth were overstated and inflated the need for additional water. Some suggested that we should use the latest population figures from the ONS 2021 Census.

Our consideration

In response to feedback from the consultation, WRSE commissioned Edge Analytics, independent demographics experts, to update the growth forecasts using the most recent ONS census population and household data and local planning authority data. We've complied with regulators' guidance in developing and using these forecasts. These are the forecasts included in our revised draft plan.

We're confident that the technical work is robust, but we'll review and update our forecasts at each of our checkpoints as new information becomes available. This is the purpose of adaptive planning.





Forecasts of climate change

Topic

Climate change will increase the risk of severe drought events in the future, reducing the water supplies we all rely on.

Working with WRSE, we used the most recent climate change projections produced by The Met Office, known as UKCP18, and prepared a range of different scenarios to forecast climate change impacts for the future.

What you said

Some consultees challenged the scenarios used in our plan, arguing that selecting the worst-case 'high' scenario inflated the need for additional water.

Our consideration

We developed a range of scenarios for climate change in our draft plan. We've checked the scenarios are robust and have continued to use the 'high' scenario in our revised draft WRMP. The difference between the 'high' and 'medium' scenario isn't significant within the context of the other challenges and uncertainties in our plan (48 MI/d by 2050). The drought we experienced in 2022 and the heatwaves we've had in recent years provide a stark reminder of the risks of climate change, which is why we consider this to be the right approach. We'll review the forecasts at each of our checkpoints and will update these as new information becomes available.





Protecting our environment

Topic

Over the past 25 years, we've reduced the amount of water we take from the environment to protect some of our most sensitive rivers, but there's concern that the amount we take is still not sustainable in some locations.

The Environment Agency asked water companies to set out where and when we'll make more reductions. This is called the Environmental Destination. We developed three scenarios for the destination – 'high', 'medium' and 'low'.

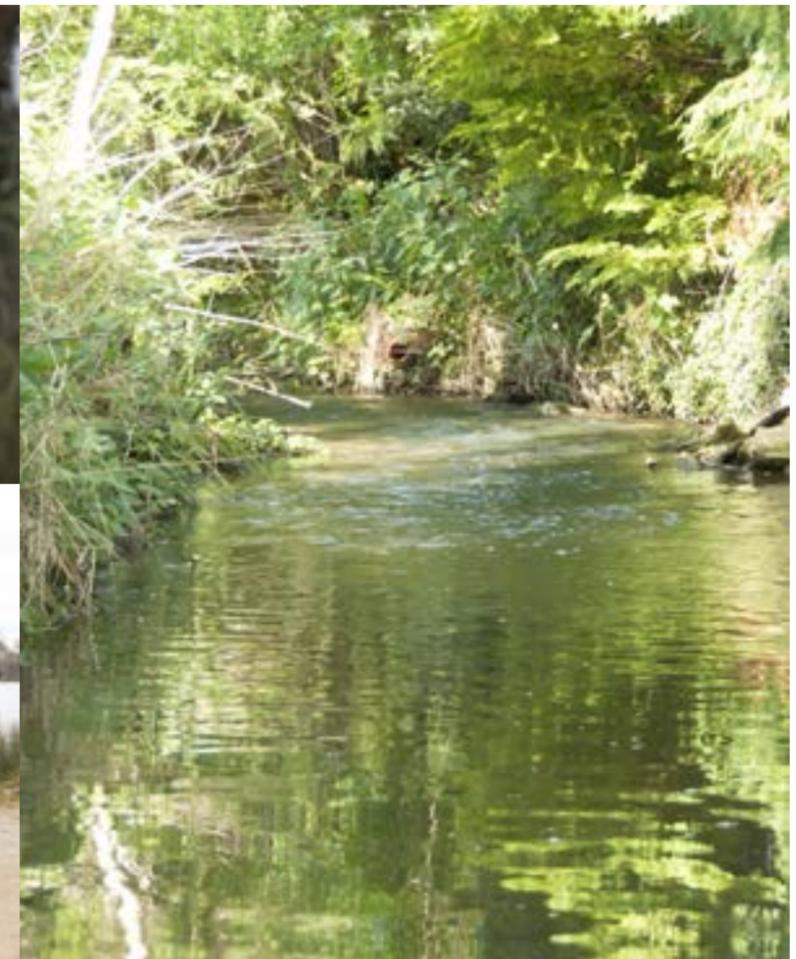
What you said

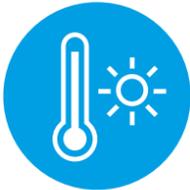
Some consultees supported the highest levels of abstraction reduction and wanted faster progress. Others wanted more information on the value this would add before making decisions on new infrastructure. Affordability was also raised by some stakeholders and customers.

Our consideration

In response to this feedback, we've reviewed all our forecasts, including the timings and glidepath of reductions.

For our revised draft plan, we've maintained our commitment to the 'high' pathway and will reduce our abstractions from sensitive rivers and waterways by over 500 MI/d. However, we've moved our Environment Destination scenarios so that all reductions are made by 2050. We'll continue our studies with the Environment Agency to make sure we understand how abstractions are impacting specific rivers and streams. This will mean we can prioritise action and take forward the right solutions to improve the environment.





Planning for different futures

Topic

Planning 50 years into the future means there are uncertainties, which is why we've developed an adaptive plan. We've prepared nine possible futures, or pathways, that enable us to adapt to varying population levels, climate change impacts and levels of protection for the environment. We've set checkpoints to review our forecasts and adapt our plan in response, if needed.

Our consideration

We've identified the 'least regret' options that are needed in all future scenarios. This approach is prudent and lets us be confident we can continue to provide a secure water supply to our customers and protect the environment.

What you said

There was support for the principle of adaptive planning. However, some stakeholders, particularly those opposed to a new reservoir, argued that our plan isn't truly adaptive as it relies on large strategic options early in the planning period.





Tackling leaks

Topic

We currently lose around a quarter of the water we put into supply through leakage. Most of this is from leaks in our water pipes, with about a third coming from leaks in our customers' pipes. Leakage is one of our top priorities, and we have an ongoing programme to tackle the problem.

What you said

There was strong support for ambitious leakage reduction targets. Some considered this to be a pre-condition before delivering major new resource schemes while others felt the plan needed to remain deliverable.

Our consideration

We're committed to reducing the amount of water lost through leaks. We reviewed our leakage reduction options for the revised draft plan and have increased our ambition to more than halve leakage levels by 2050, with interim targets of a 20% reduction by 2027 and 30% reduction by 2032. These are challenging targets that rely on fresh thinking and innovative approaches.





Using water wisely

Topic

We're committed to working with our customers and stakeholders to make the most of the water we have. We have an ongoing programme to roll out smart meters and raise awareness of the need to use water wisely. Our draft plan explains that, while we're committed to supporting the government as it develops a roadmap for water efficiency, we're not confident that we could achieve the government's national target of 110 litres of water per person per day (l/h/d). We forecast that our actions, alongside government initiatives to change policy and legislation, could lower water use to 123 l/h/d.

What you said

There was lots of support for making the best use of the water we have through the ongoing roll out of water meters

while providing help and support to businesses and household customers. Many respondents wanted to see even more ambition. Some recognised there's a risk given that changes to behaviour aren't fully in the control of water companies.

Our consideration

In line with new government expectations and updated guidelines, we've extended our activities in our revised draft plan to reduce water use to 110 l/h/d for household customers and by 15% for businesses by 2050. This has significantly increased the size of the demand reduction programme in our revised draft plan. This level of ambition hasn't been achieved previously – to get there, we'll need to work collaboratively with the government, stakeholders, other water companies and customers.





New water resources – Teddington Direct River Abstraction

Topic

We proposed a new abstraction on the River Thames, close to Teddington Weir, that's supported by recycled water.

What you said

There were a large number of responses objecting to this scheme. Concerns were raised about the impact on the river and effects on public health and the ecology. There were also concerns about new infrastructure on the riverbank and the construction of an underground pipeline, alongside the disruption this would cause to the local community.

Our consideration

This is a cost-effective scheme that will increase drought resilience for our customers. We've been working closely with regulators and stakeholders on the initial studies that have shown that the scheme meets the required levels of protection set out by the Environment Agency. We'll continue to do more detailed studies and share this work as it is completed. We'll also continue to work with the local community to understand and address their concerns.





New water resources – South East Strategic Reservoir Option

Topic

We proposed a new reservoir in Oxfordshire that will provide water to customers of Thames Water, Affinity Water and Southern Water.

What you said

There was some local opposition to the reservoir. The issues raised included the need for the water, the location of the reservoir, the availability of alternative schemes, the impact of the construction, the impact on the local environment, changes to the local landscape and safety. However, some stakeholders recognised SESRO was needed to ensure a resilient future water supply. Customers who participated in the research study also told us that their preferred option is a new reservoir, as it's established technology, is resilient to climate change and brings a range of opportunities for conservation, leisure and recreation.

Our consideration

In response to the consultation and through our work with WRSE, we've undertaken further detailed modelling and sensitivity testing. This additional work has determined that SESRO is an integral part of the South East's best value plan. The size of the reservoir in the revised draft plan has increased from **100 Mm³ to 150 Mm³** to ensure we can provide a resilient and sustainable water supply for future generations.

We've listened to concerns raised by the local community and published "Our commitments to the local community" document. We'll continue to work openly with the local community to address their concerns wherever possible.





New water resources – Water transfer from the River Severn

Topic

We proposed a water transfer from the River Severn to the South East from the Midlands and the North West. The water would come from the River Severn itself, with extra water provided by Severn Trent Water and United Utilities when there isn't enough in the river.

What you said

Some of the respondents who opposed the development of a new reservoir argued that the transfer is a better option.

There were also a number of responses in support of rebuilding and restoring the Cotswold Canals to transfer the water from the River Severn to the River Thames instead of a new pipeline. These respondents argued the cost and benefits of the canal hadn't been properly assessed.

Our consideration

With the extended activities to tackle leaks and reduce demand in our revised draft plan, the transfer is no longer needed as part of the best value plan for the South East. However, we've recommended that work should continue on this scheme so if additional water is needed in the future, we can move ahead with it quickly.



From our customers

The main messages from our customers were:

- They want us to plan ahead to ensure there's enough water now and in the future
- They support our ambition to improve the environmental impact of water abstraction, although there were some concerns about the cost and whether customers should pay for these improvements
- They want a balanced plan that will safeguard service levels and the environment for future generations
- Reducing leakage and demand management are a priority, supported by a mix of strategic resource schemes
- They understand that new infrastructure projects will cause local disruption and there will be local opposition, but they think these schemes must go ahead for the wider benefit to society
- Of the proposed new supply options, the majority of customers expressed support for the new reservoir in Oxfordshire and new abstraction in west London
- Unsurprisingly, customers were sensitive to the impact on their bills. When bills were lower, customers showed greater support for the least cost plan, but as bills increased, their preference switched to the best value plan. This is because they want more resilience for their money

The government and our regulators published new and updated policy and regulatory requirements during the public consultation. These include additional requirements to reduce leakage and work with our customers and businesses to reduce the amount of water we all use.



Our revised draft plan

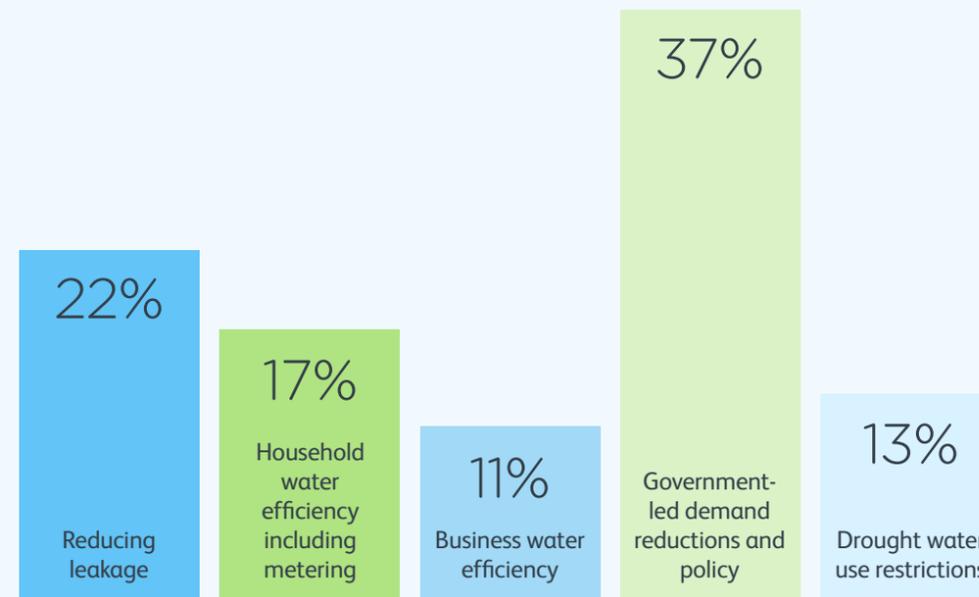
Our revised draft plan sets out that, if we do nothing, we could face a shortfall of over 1 billion litres of water per day by 2050. To meet this shortfall, we plan to make the best use of the water we've got by tackling leakage and reducing demand as well as investing in new sources of water.

Making the best use of the water we've got

By far the most significant change within our plan is a greater emphasis on demand management.

- Leakage is a priority issue and we've increased our ambition to tackle leaks, aiming to reduce leakage by 20% by 2027, by 30% by 2032 and to at least 50% by 2050
- We'll focus on helping our customers to reduce their water use and achieve an average water use of 110 l/h/d by 2050. We'll also work with businesses to reduce their water use, aiming to achieve a 15% reduction in water use by 2050
- The government has committed to bringing forward policy measures including labelling all water-using products, bringing in new standards for these products and updating building regulations for new homes and retrofits. These measures are forecast to contribute over a third of our forecast water use savings

In total, our work to tackle leakage and reduce water demand will make up around 80% of the water shortfall by 2050. The scale of this activity is very ambitious and hasn't been achieved previously. It will take concerted, collaborative efforts by the government, stakeholders and water companies, who will have to transform how they work with customers to reduce their water use. It also relies on the government introducing new water-efficient policies earlier than originally proposed in our draft plan. The ability to achieve these ambitious demand reduction targets will greatly affect the resilience of our water supplies. We'll monitor progress so we can respond quickly.



2050 (% contribution)

How much can you reduce your water use by having a water meter?



By around

13%

- this not only saves water but saves money on your bill too

New water sources

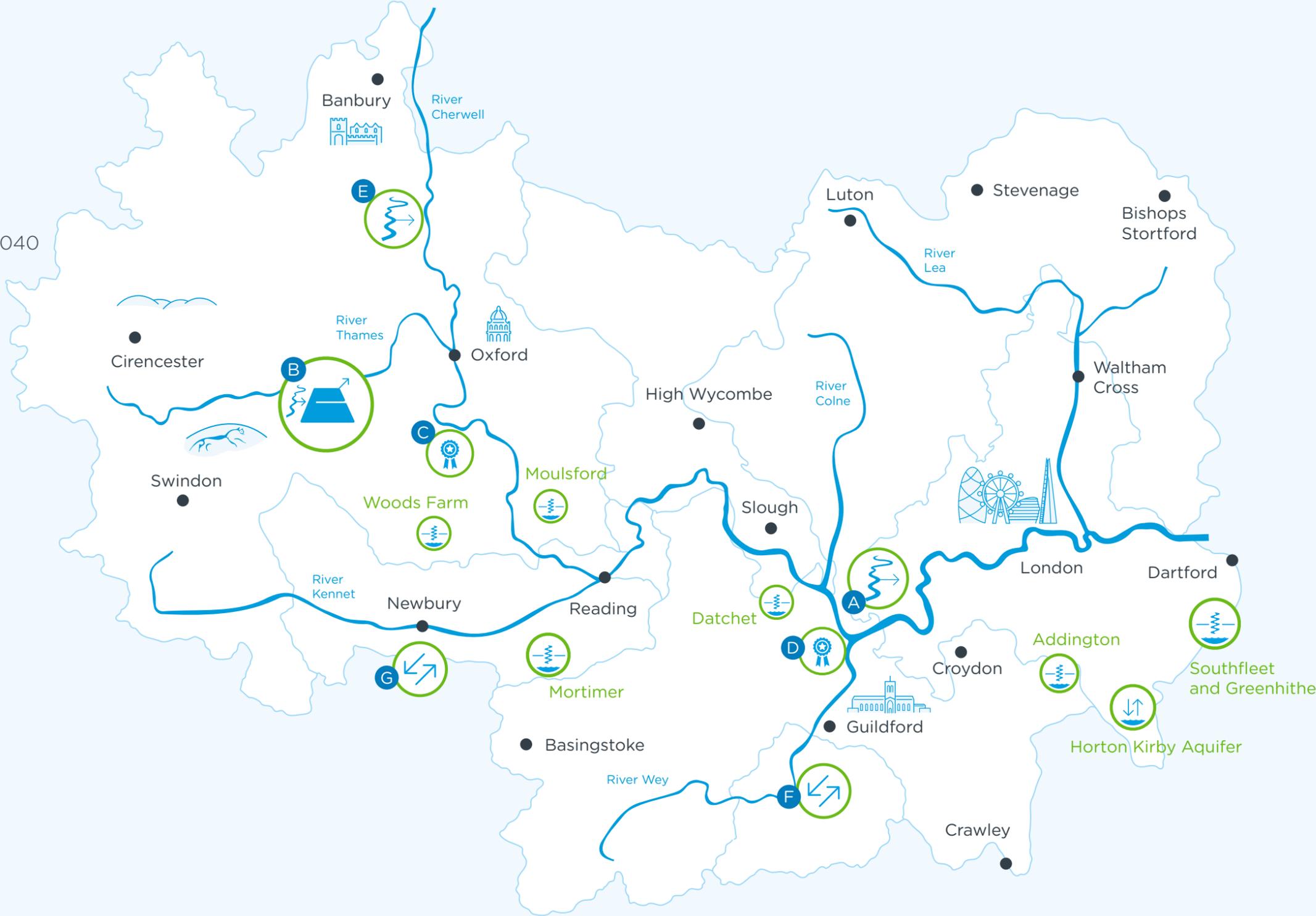
To ensure a resilient water supply, we'll need to invest in new water sources. These include new and extended groundwater sources, a new reservoir in Oxfordshire and a new abstraction point in west London that's supported by water recycling. The water network will be extended across the South East so we can share water better across the region.

- A** Teddington DRA 75 MI/d - 2033
- B** South East Strategic Reservoir Option (SESRO) 271MI/d - 2040
- C** RWE Didcot licence trade 23MI/d - 2025
- D** Affinity Water licence trade 10MI/d - 2033
- E** Oxford Canal transfer 11MI/d - 2040
- F** Water transfer from South East Water 10MI/d - 2050
- G** Thames to Southern spur transfer 10MI/d - 2050

 Seven groundwater options from 2 to 9 MI/d

We're also considering catchment and nature-based schemes. We've committed to working with our partners to investigate these options and evaluate their benefits.

 Find out more about groundwater schemes in Section 11 of our revised draft plan. [>](#)



Transfers within our supply area are not included in the map.

Teddington Direct River Abstraction

What's the scheme?

This scheme is a new river abstraction on the River Thames, close to Teddington Weir. We'd transfer water abstracted from the river via an existing underground tunnel to the Lee Valley reservoirs in East London. We'd then pump highly treated recycled water from Mogden sewage treatment works to compensate for the additional water taken from the river to protect the environment and wildlife. As a drought resilience scheme, this will provide up to 75 million litres per day. It will only be used during periods of prolonged dry weather.

Why do we need this scheme?

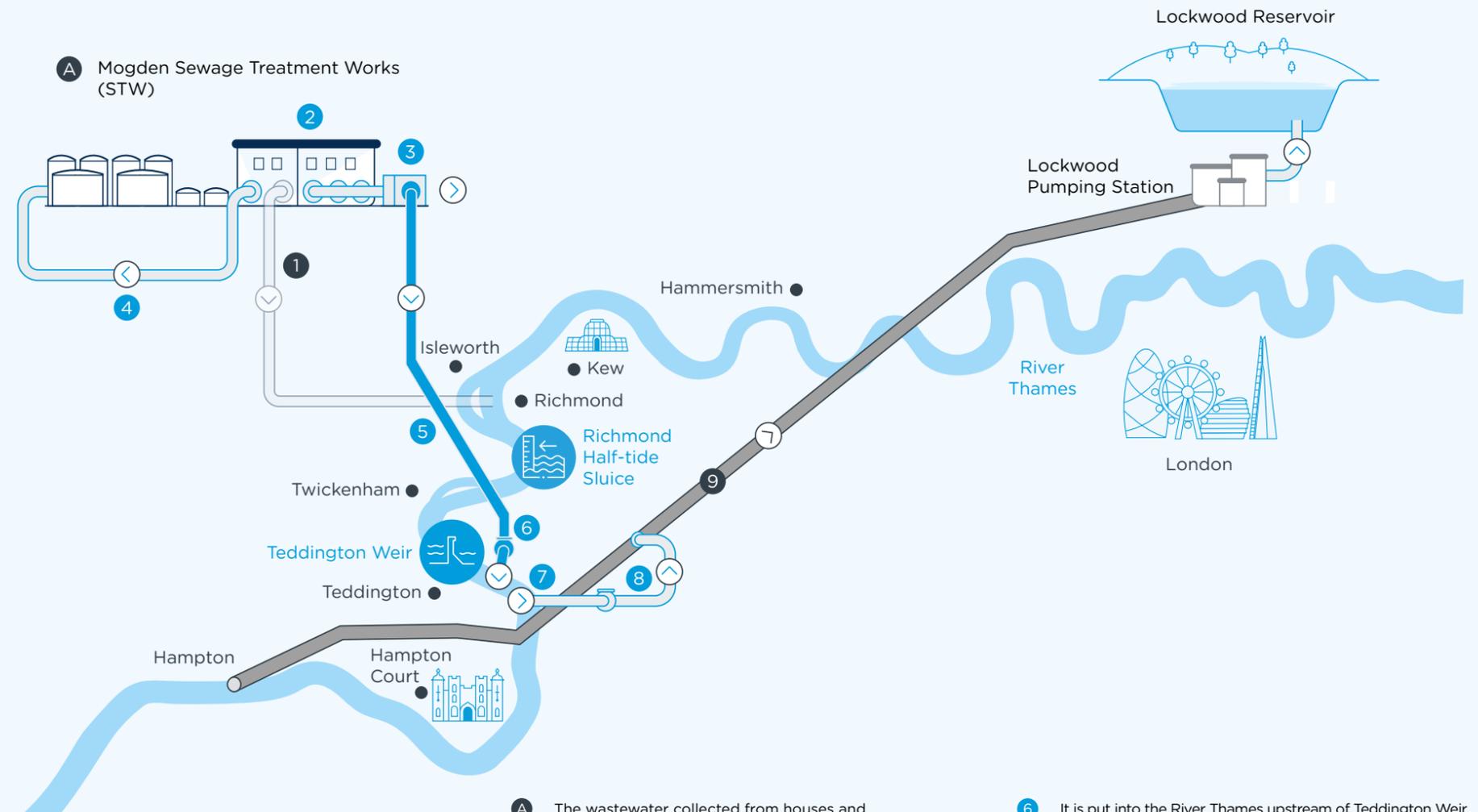
We need extra water resources from the early 2030s so we can be confident we can supply a secure water supply to our customers during severe drought events. Working with WRSE, we've carried out further modelling and testing for the regional plan, which shows that a direct river abstraction is the best value scheme to increase drought protection for our London customers. It can be constructed by 2033.

Have we listened to local concerns and how have these shaped the plan?

We've listened to concerns raised by the local community about the perceived public health and environmental impact of the scheme. So far, we've completed initial assessments including environmental and water quality monitoring. The results show that the scheme presents a low risk to the environment, and the risks can be mitigated. We're carrying out more detailed assessments in consultation with the Environment Agency, Natural England, the Drinking Water Inspectorate and other stakeholders. We'll share this work with the local community as soon as it's ready, factoring in time to scrutinise and discuss it together.

What happens next?

We'll continue to carry out more detailed engineering and environmental studies to develop the scheme before we submit a formal planning application. We'll continue engaging with local communities and stakeholders throughout this work. We'll also examine a potential water recycling scheme in east London as a reserve option.



- A** The wastewater collected from houses and businesses is treated at the STW so that it can be put back safely into the River Thames.
- 1** The treated water is put safely back into the River Thames.
- 2** Upgrade the STW storm tanks to provide the space needed to build a new advanced (tertiary) treatment works.
- 3** Some of the treated water is diverted and undergoes further treatment at the new advanced (tertiary) treatment works.
- 4** The waste stream from the further treatment is returned to the main STW for re-treatment.
- 5** The further treated water is pumped via an underground tunnel upstream of Teddington Weir.
- 6** It is put into the River Thames upstream of Teddington Weir. This allows us to take water from the river for drinking water supply whilst making sure there is enough water left in the river to protect the fish and wildlife.
- 7** New abstraction on the River Thames. The abstraction point will have screens to protect fish and eels.
- 8** Water is transferred via a new pipeline connection to an existing underground tunnel.
- 9** Existing underground tunnel to transfer water to the Reservoirs in the Lee Valley.
- 10** Potential new underground tunnel to King George V Reservoir.



To read more about our decision making for the best value plan, go to Sections 10 and 11 of our revised draft plan



A new reservoir – the South East Strategic Reservoir Option (SESRO)

What's the scheme?

This is a reservoir in the Upper Thames catchment, south west of Abingdon in Oxfordshire. The reservoir will be filled with water from the River Thames in winter when there's plenty of water in the river. When river levels drop or demand for water increases, water will be released from the reservoir back into the river for re-abstraction downstream. As well as providing a resilient water supply for the South East, the reservoir also provides opportunities to create new habitats and increase biodiversity as well as offer new leisure and recreation facilities.

Why do we need a reservoir?

We've considered a range of options in the development of the plan. The detailed modelling and sensitivity assessments completed by WRSE have confirmed that the reservoir is an integral part of the best value plan for the South East.

In our draft plan, we explained that the decision around the size of the reservoir was finely balanced between 100 Mm³ and 150 Mm³. After considering feedback from regulators, stakeholders and our customers and completing further technical assessments, we've concluded that we need to build the larger 150 Mm³ reservoir.

It's hard to predict what all our challenges might be over the reservoir's expected life span (up to 250 years), but a larger reservoir provides a resilient source of water with lower operating costs. It also means we can share water and provides the ideal base of an adaptive plan for an uncertain future. A 150 Mm³ reservoir would give us around 50% more water for around the same level of investment compared to a 100 Mm³ reservoir. It will also provide water to customers in London and the Thames Valley as well as customers served by Affinity Water and Southern Water.

Why is the reservoir chosen ahead of the Severn Thames Transfer?

We need to develop a new strategic resource option in the western part of the South East region to make sure we've got enough water to go around in the future. We considered a transfer from the River Severn, but the technical assessments showed a reservoir is a better choice. It's more cost effective, has a lower carbon budget and it provides more environmental and resilience benefits, particularly under severe future scenarios.

Have we listened to local concerns and how have these shaped the plan?

We've listened to the concerns from the community, and in February 2023, we published a statement of **community commitments** to reassure the community that we're listening. One of our commitments is that we'll continue to engage with local communities as part of the rigorous planning process.

What happens next?

We'll continue to carry out more detailed engineering and environmental studies to develop the scheme before we submit a formal planning application. We'll engage with local communities and stakeholders throughout this work.

What happens to the Severn Thames Transfer now?

There are lots of uncertainties in planning ahead for the next 50 years. We know we can't take risks with our water supply, so we've proposed that we should continue to develop the transfer scheme as a reserve option. This will allow us to act quickly if we need additional water in the future.

A new reservoir – the South East Strategic Reservoir Option (SESRO)



- 1 Proposed reservoir
- 2 Reservoir embankment
- 3 Screening mounds
- 4 New road
- 5 Wetland habitat / floodplain compensation
- 6 Safeguarded corridor for future canal
- 7 Land for future Water Treatment Works
- 8 Underground pumping station
- 9 Watercourse diversions
- 10 Wetlands
- 11 Access road
- 12 Drawdown channel
- 13 Water transfer tunnel
- 14 River Thames intake and outfall
- 15 Potential location for railway sidings and material handling
- 16 Potential access location for water-based recreation

What happens next?

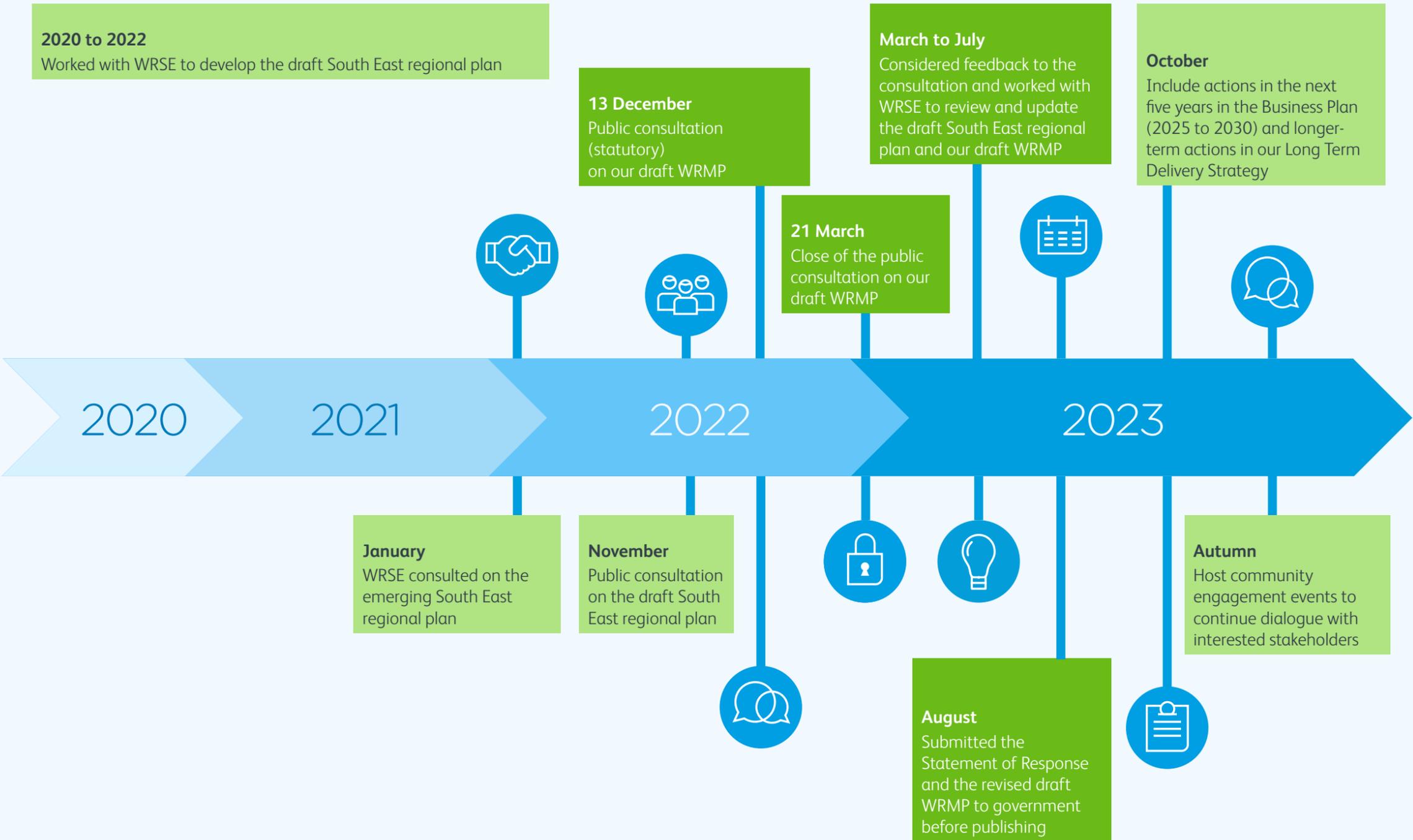
Water is essential for all our lives, so we can't take chances with our water supply.

Our robust plan is based on the best available data and evidence. In the short term, we're confident in our forecasts and feel ready to start making progress that adds value for our customers. Building new water sources can take up to 15 years, so we need to get started with these proposals.

Looking further into the future can be less predictable. That's why we've followed an adaptive planning approach with several checkpoints to adapt and modify our plan. We'll monitor progress to ensure we're on track and can maintain confidence in our plan to provide a secure and sustainable water supply to our customers while protecting the environment.

We recognise the cost-of-living crisis brings with it the temptation to postpone measures that could impact customer bills. But our work has shown that the cost of inaction is far greater than the cost of delivering this plan.

We're looking forward to the plan being finalised and approved by the government and regulators in the months ahead. The next challenge will be to turn this plan into reality. We must not let the already serious challenges become greater as we work to make sure we all have access to a safe, secure water supply both now and for generations to come.



Summary of our revised draft plan

1

We've put together a plan to secure future water supplies for our customers and protect the environment



3

We'll work hard to tackle leaks, aiming to reduce leakage by over a half by 2050



5

We'll move ahead with the development of new water sources, including the Teddington Direct River Abstraction scheme and the South East Strategic Reservoir, to achieve timely planning consent



7

We'll monitor and adapt our plan as the future unfolds, continuing to work with our stakeholders



2

We plan to reduce existing abstractions by over 500 Ml/d to protect the most vulnerable rivers and catchments while exploring nature-based solutions



4

We'll support our customers to use water wisely, installing and upgrading a further 1,000,000 smart meters by 2030 and reducing household water use to 110 l/h/d by 2050, with ambitious targets along the way



6

We'll carry out more studies on other schemes, including the Severn Thames Transfer and water recycling in east London, in case these are needed in the future



Our revised draft plan - document library

We've published our revised draft plan, which sets out our plan in detail.

Our plan is made up of:

- Technical Report: Section 1-11
- Technical Appendices: Appendices A-CC
- Supporting documents



To access these documents, visit thames-wrmp.co.uk



Any questions? Please get in touch at info@thames-wrmp.co.uk



