Strategic regional water resource solutions: standard gate two draft decision for London Water Recycling Schemes



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1. Introduction

The purpose of this publication is to set out our draft decision about whether the London Water Recycling Schemes¹ solution should continue to receive development funding². The solution owner Thames Water submitted their standard gate two reports on 14 November 2022 for assessment. Further information concerning the background and context of the Thames Water London Water Recycling Schemes can be found in the solution publication document on the Thames Water website³.

This publication should be read in conjunction with the draft decision letter issued to each solution owner. Both this document and draft decision letters have been published on our website.

The assessment process is overseen by RAPID, with input from the partner regulators Ofwat, the Environment Agency and the Drinking Water Inspectorate. The Environment Agency together with Natural England, have reviewed the environmental sections of the submissions, and provided feedback to RAPID. The Consumer Council for Water provided input to the assessment on customer engagement.

The solution owners and other interested parties can now respond to the draft decision. Representations are invited by email to rapid@ofwat.gov.uk and the representation period will close at 6pm on 11 May 2023. All representations will be considered before our final decision is published at 10am on 28 June 2023.

We will publish representations on our website at www.ofwat.gov.uk/regulated-companies/rapid, unless you indicate that you would like your representation to remain unpublished. We will also share representations with our partner regulators, Ofwat, the Environment Agency and the Drinking Water Inspectorate and with Natural England. Subject to the following exceptions, by providing a representation to this consultation you are deemed to consent to its publication.

If you think that any of the information in your response should not be disclosed (for example, because you consider it to be commercially sensitive), an automatic or generalised confidentiality disclaimer will not, of itself, be regarded as sufficient. You should identify specific information and explain in each case why it should not be disclosed (and provide a redacted version of your response), which we will consider when deciding what information to publish. As minimum, we would expect to publish the name of all organisations that provide a written response, even where there are legitimate reasons why the contents of those written responses remain confidential.

¹ Referred to in PR19 final determination as London effluent reuse

² PR19 final determinations: Strategic regional water resource solutions appendix

³ Strategic water resource solutions | Regulation | About us | Thames Water

In relation to personal data, you have the right to object to our publication of the personal information that you disclose to us in submitting your response (for example, your name or contact details). If you do not want us to publish specific personal information that would enable you to be identified, our <u>privacy policy</u> explains the basis on which you can object to its processing and provides further information on how we process personal data.

In addition to our ability to disclose information pursuant to the Water Industry Act 1991, information provided in response to this consultation document, including personal data, may be published or disclosed in accordance with legislation on access to information – primarily the Freedom of Information Act 2000 (FoIA), the Environmental Information Regulations 2004 (EIR) and applicable data protection laws.

Please be aware that, under the FoIA and the EIR, there are statutory Codes of Practice which deal, among other things, with obligations of confidence. If we receive a request for disclosure of information which you have asked us not to disclose, we will take full account of your explanation, but we cannot give an assurance that we can maintain confidentiality in all circumstances.

We would like to thank Thames Water for the level of engagement, collaboration and innovation that they have exhibited during this stage in the gated process.

2. Solution Summary

2.1 Solution summary

The London Water Recycling Schemes aims to provide a reliable, sustainable supply of water to support the flow in the River Thames in West London. It does this by treating effluent and discharging it to the River Thames where it can be abstracted as a raw water resource to supply water treatment works downstream, and possibly to support the Thames to Affinity Transfer (T2AT solution).

There are four feasible sub-options summarised below which have been further developed since gate one. A schematic showing the transfers is included in Figure 1 below.

The 4 sub options for this solution are:

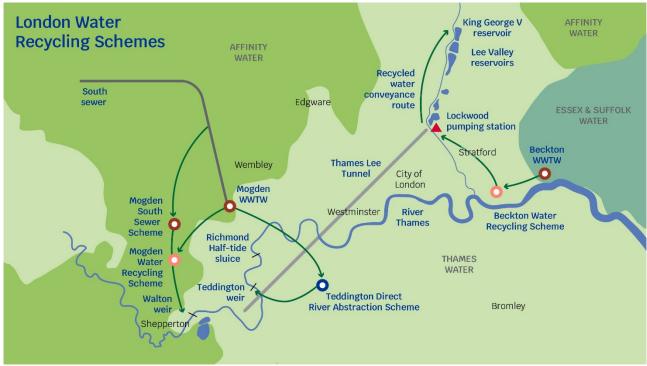
- 1: Teddington DRA up to 100 megalitres per day (Ml/d) recycled water discharged into the River Thames at Teddington Weir replacing abstraction via the Thames Lea Tunnel (TLT) to support North East London.
- 2: Mogden South Sewer Scheme (MSS) up to 50Ml/d recycled water with additional treatment discharged into the River Thames at Walton.
- 3. Mogden Effluent Reuse Scheme (MOG) up to 150Ml/d recycled water into the River Thames at Walton.
- 4. Beckton Effluent Reuse Scheme (BEC) up to 300Ml/d recycled water conveyed by tunnel to the River Lee diversion for flow augmentation and abstraction to the Lee Valley Reservoirs supporting North East London.

Thames Water have recommended that Mogden South Sewer exits the gated process at this point. Mogden South Sewers' deployable output is reduced based on the available flow, with the proposal that it does not progress into gate three.

As a result of the regional planning process Teddington DRA has been identified as a preferred option to progress for early delivery.

Thames Water propose that London Water Recycling is split into three solutions, namely Teddington DRA, Beckton Water Recycling and Mogden Water Recycling. We understand the reasoning behind the proposal to change. However, we believe there is merit in keeping them as one solution but accept the need to be flexible in terms of the timescales of progression for the three options.

Figure 1. London Water Recycling Solution Schematic



3. Solution assessment summary

Table 1. Draft decision summary

Recommendation item	London Water Recycling	
Solution owners	Thames Water Utilities Limited	
Should further funding be allowed for the solution to progress to gate three?	Yes	
Is there evidence all expenditure is efficient and should be allowed?	Yes	
Delivery incentive penalty?	No	
Is there any change to partner arrangements?	No	
Are there priority actions for urgent completion?	Yes	
Are priority actions and actions from previous gates addressed?	Yes	
Suitable timing for gate three has been proposed	Yes	

3.1 Solution progression to standard gate three

The evidence suggests that the solution is a potentially valuable way of providing an additional source of raw water for abstraction and treatment to supply water to customers during periods of prolonged dry weather. Based on our assessment of a wide range of areas that could concern the progression of the solution, we have concluded that the solution should progress through the gated process to gate three. Figure 2 below summarises the area of any progression concerns, including indication of the significance. The reasons for this assessment conclusion are set out in table 2 below.

Decisions on funding as a result of this progression decision, are set out in section 3.2.

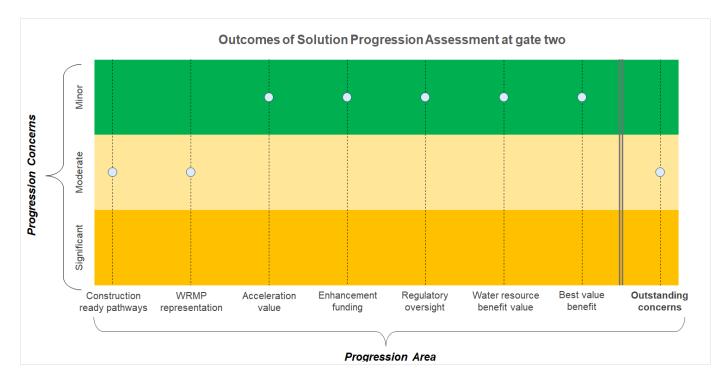


Figure 2. Assessment of solution's progression concerns

Table 2. Draft decision progression criteria

Progression criteria	London Water Recycling		
Solution owners	Thames Water		
Is the solution in a preferred or alternative pathway in relevant regional plan or WRMP (where applicable) to be construction ready by 2030?	Yes, the Teddington DRA solution is selected in Thames Water's draft water resource management plan (WRMP24) as a solution on its preferred pathway, which is the relevant plan for the standard track. The solution is also in the Water Resources South East (WRSE) draft regional plan. The solution will be construction ready by 2027.		
	However, Beckton Water Recycling and Mogden Water Recycling are not selected in preferred or adaptive pathways in Thames Water's dWRMP24. Beckton Recycling option has been selected in WRSE sensitivity runs.		
	No further action is required on this progression criteria.		
Do regulators have any significant concerns with the solution's inclusion or non-inclusion in a WRMP or regional plan or with any aspects that may impact its	No, the regulators do not have concerns on how the solution is represented, or the information about it, in Thames Water's draft WRMP24, or WRSE's draft regional plan.		
selection, to a level that they have (or intend to) represent on it when consulted?	No further action is required on this progression criteria.		
Is there value in accelerating the solution's development to meet a company's or region's forecast supply deficit?	Yes, the preferred option of Teddington DRA is already on a tight time schedule for delivery therefore unable to accelerate further. The other options are currently not being selected for delivery before 2040.		
	No further action is required on this progression criteria.		

Does the solution need continued enhancement funding for investigations and development to progress?	Yes. Continued funding is required to develop a solution to be delivered in time for the planned construction ready date.	
	No further action is required on this progression criteria.	
Does the solution need the continued regulatory support and oversight provided by the Ofwat gated process and	Yes. The solution will continue to benefit from the regulatory support and oversight provided by being included in the RAPID programme.	
RAPID?	No further action is required on this progression criteria.	
Does the solution provide a similar or better cost / water resource benefit ratio compared to other solutions?	This solution is expensive if considered on the basis of cost per projected utilisation as it is a drought resilience asset. However, when considered on a capacity basis, solution costs are not unreasonable and over the medium- to long-term and the solution can be adapted to provide capacity beyond the immediate resilience requirement.	
	No further action is required on this progression criteria.	
Does the solution have the potential to provide similar or better value (environmental, social and economic value – aligned with the Water Resources Planning Guideline) compared to other	This is a recycling scheme to augment the River Thames during dry weather periods. As such there are no direct societal or social benefits. The solution offers natural capital and opportunities for biodiversity net gain.	
solutions?	No further action is required on this progression criteria.	
Does a regulator or regulators have outstanding concerns that have not been addressed through the strategic planning processes taking into account	No outstanding concerns have been identified at this stage; however, they may emerge during gate three pending further environmental and other assessments and evidence.	
proposed mitigation?	No further action is required on this progression criteria.	

3.2 Solution funding to standard gate three

We are not changing the funding of this solution at present. This solution's total allowance and gate allowances remain the same as the final determination. The details of this funding decision are set out in Table 3 below, and details on forward programme in section 7.1.

Table 3. London Water Recycling funding allowances

	Gate one	Gate two	Gate three	Gate four	Total
London Water Recycling gated allowance	£6.29m	£9.44m	£22.03m	£25.18m	£62.94m
Comment	10% of development allowance calculated as 6% of total solution costs	15% of development allowance calculated as 6% of total solution costs	35% of development allowance calculated as 6% of total solution costs	40% of development allowance calculated as 6% of total solution costs	Total development allowance calculated as 6% of total solution costs

As a result of a decrease in scope for the solution, we expect that the reconciliation process will claw back some of the expenditure in future gates.

This funding is allowed in accordance with the conditions and requirements as outlined in the PR19 final determinations: Strategic regional water resources solution appendix.

3.3 Evidence of efficient expenditure

The PR19 final determination specified that any expenditure on activities outside the gate activities for the identified solutions (or solutions that transfer in) will be considered as inefficient and be returned to customers. We will consider whether gate activity is efficient by considering the relevance, timeliness, completeness, and quality of the submission which should be supported by benchmarking and assurance.

London Water Recycling has carried forward £3.76m underspend from gate one, increasing the allowance available to them at gate two to £13.20m.

Our assessment of the efficient costs as spent on standard gate two activities results in an allowance for this solution of £5.71m (of £5.71m claimed). London Water Recycling has therefore underspent its combined gates one and two allowance by £7.49m and may take this underspend forward to gate three, increasing the allowance available to them at gate three to £29.52m.

From gate two, we will move to look at the cumulative gate spend against the cumulative total allowance, across all gates consistent with the activities being undertaken. For example, any gate four allowance that is brought forward towards gate three should be for the purpose of early gate four activities. Overspends and underspends are then to be managed through cost sharing between the water company and customers. As London Water Recycling is progressing to gate three, this will apply here.

3.4 Quality of solution development and investigation

The aim of the assessment was to determine whether gate two activities have been progressed to the completion and quality expected, for the continued development of the solution.

Figure 3 shows our assessment of the work completed on the solution, which was presented 5in the gate two submission. Our assessment was made against the criteria of robustness, consistency, and uncertainty to grade each area of the submission as good, satisfactory, or poor in accordance with the <u>standard gate two guidance</u>, (updated version published on 12 April 2022). We also assessed the Board assurance provided.

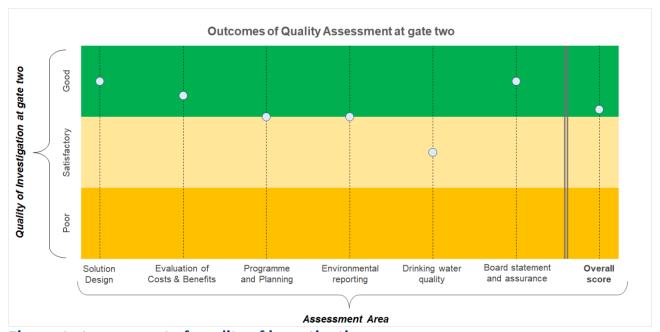


Figure 3. Assessment of quality of investigation

Our overall assessment for the solution submission is that it is a good submission that meets expectations of gate two.

In addition to the overall assessment score, there is some variance in expectations being met across the submission, with environmental reporting and drinking water quality falling short of expectations and not as developed as would be expected at gate two.

We explain our assessment of each individual area, including any shortfalls in expectations, in the sections below. We have not applied any delivery incentive penalties as a result of this assessment of quality, as further detailed in section 4.

3.4.1 Solution Design

Our assessment of the Solution Design considered the quality of the evidence provided on the initial solution and sub-options; the anticipated operational utilisation of solutions; the interaction of the solution with other proposed water resource solutions and stakeholder and customer engagement. The assessment also considered whether information was provided on the context of the solution's place within company, regional and national plans.

We consider Thames Water to have provided sufficient evidence of progress in developing the solution design for gate two. The submission falls short of expectations in some areas. Gate two presents detailed information on all four sub-options assessed.

The assessment of London Water Recycling has focused on Teddington DRA 75 Ml/d as that is the preferred option in the plan and we support this sized option progressing to gate three. We also support Beckton (BEC) progressing to gate three as that has been selected in WRSE sensitivity runs. However, Mogden (MOG) is not included in any preferred or adaptive pathways, and it is not selected in sensitivity runs therefore the justification for its progression beyond gate two is unclear. We would like to work with Thames Water to better understand why this is the case, and to understand the interaction of any maintenance flows with management of the freshwater River Thames.

3.4.2 Solution costs

Our assessment of the unit costs of delivering London Water Recycling finds that the costs presented are reasonable at this stage. Cost changes from gate one to gate two have been sufficiently explained and are as a result of detailed development of the solution or changing market conditions. For instance, capex has increased due to land specifications being updated to match design development. The assessment also considers the use of the solution as a drought resilience asset, and therefore cost per capacity is often a more appropriate metric than cost per projected utilisation. We will continue to scrutinise cost estimate changes from gate two to gate three.

3.4.3 Evaluation of Costs and Benefits

Our assessment of the evaluation of costs and benefits considered the quality of the information provided on initial solution costs; the social, environmental and economic cost and benefits, water resource benefits and wider resilience benefits. The assessment also considered whether evidence was provided on how the solution delivers a best value outcome for customers and the environment.

We consider that Thames Water have provided sufficient evidence of evaluating the costs and benefits of the solution to an appropriate standard for gate two.

The submission has included a good assessment of natural capital and opportunities for biodiversity net gain. The water resource benefits are clear and aligned with those presented in WRMP data tables. The solution delivers sufficient wider resilience benefits, as described through the scalability of options is well evidenced. Teddington DRA has been selected through WRSE best value planning as the preferred option.

3.4.4 Programme and Planning

Our assessment of the Programme and Planning considered whether Thames Water presented a programme with key milestones and whether its delivery is on track. The assessment also considers the quality of the information provided on risks and issues to solution progression, the procurement and planning route strategy and subsequent gate activities with outcomes, penalty assessment criteria and incentives.

The submission defines environmental impacts clearly; however, it falls short as mitigation has not been identified for all the risks identified. There is a risk to scheme feasibility if mitigation cannot be provided for water quality, temperature and velocity impacts on fish and the environment. An action has been included in relation to this.

While the programme and planning score has been marked down as requirements that solution owners were funded to meet have not been met, we have made a decision that there is no longer a need for value for money assessments for RAPID solutions and therefore no associated gate two action is required.

3.4.5 Environment

Our assessment of Environment considered the initial option-level environmental assessment; the identification of environmental risks and an outline of potential mitigation measures; the detailed programme of work used to address environmental assessment requirements and the initial outline of how the solution will take into account the carbon commitments.

Our assessment of environmental impacts has focused on Teddington DRA 75Ml/d as that is the option selected in the WRSE Plan and WRMP. Extensive environmental assessment and modelling has been undertaken and largely meets expectations for gate two. Whilst this has identified potential risks from the scheme there is still more work required to understand the significance of these impacts and whether they can be mitigated.

Our review of Beckton water recycling has identified issues that need to be resolved, in addition to the work proposed for gate three. This includes water quality modelling of impacts on the freshwater River Lee and Lee reservoirs and any infrastructure designs to manage impacts on the Enfield Island Loop.

For both Teddington DRA 75Ml/d and Beckton water recycling (BEC), mitigation measures for all environmental impacts must be identified before final WRMP24s are published.

The carbon assessment has not been improved through the query process and falls short of expectations. Scoping of future work is well presented and should include improvements to the carbon assessment as required.

3.4.6 Drinking water quality

Our assessment of Drinking Water Quality considered drinking water quality and risk assessments; evidence that the solution has been presented to the drinking water quality team and a plan for future work to develop Drinking Water Safety Plans.

This solution is designed to augment flows in the River Thames to support abstraction downstream for London water treatment works (WTW) and Thames Lee Tunnel to Northeast London. There are no explicit drinking water quality requirements for river augmentation, however we consider the company to have provided sufficient evidence of progress in the water quality risk assessment, and future work around Strategic Water Quality Risk Assessments (SWQRA) for gate two as this resource will feed into the Drinking Water Safety Plans (DWSPs) for downstream water treatment works. We expect to see continued monitoring including for emerging contaminants into gate three.

We consider Thames Water to have provided sufficient evidence of progress in the drinking water quality risk assessment, and future work around Drinking Water Safety Plans for gate two.

3.4.7 Board Statement and assurance

The evidence provided relating to assurance is satisfactory for this stage of the gated process.

We consider that the board of Thames Water has provided a comprehensive assurance statement and has clearly explained the evidence, information, and external/internal assurance that it has relied on in giving the statement.

4. Actions and recommendations

Where the submission has not been assessed as 'meeting expectations' in the quality assessment, or progression concerns have been raised, we have provided feedback on where we will seek remediation of the issues. We have also identified specific steps that solution owners should take in preparing for standard gate three.

We have categorised these remediation issues and steps into priority actions, actions and recommendations.

Priority actions are those that should have been completed at gate two and must now be addressed on a short timescale in order to make sure the solutions stay on track. They require urgent remediation in full.

Actions are those that should be addressed in full in the standard gate three submission. The response to these actions will influence the assessment of the gate three submission.

Recommendations are issues where additional information or clarification could improve the quality of future submissions.

We have also assessed progress on actions and recommendations from gate one.

4.1 Actions and recommendations from gate two assessment

Thirteen priority actions have been identified for London Water Recycling, which should be delivered no later than 31 August 2023 as part of a remediation plan. The solution owners should propose delivery dates for each priority action in their representation.

Four actions and recommendations have been identified for London Water Recycling, which should be fully addressed at the gate three submission. Progress against actions will be tracked as part of regular checkpoints the solution holds with us whilst undertaking gate three activities.

The full list of priority actions, actions and recommendation for London Water Recycling can be found in Appendix A. If solution owners cannot meet action deadlines set please explain this in the representation.

4.2 Actions and recommendations from gate one assessment

We have assessed whether London Water Recycling has met actions that were set out as a result of our gate one assessment.

No priority actions were identified for London Water Recycling,

Eleven actions and recommendations were identified for London Water Recycling, which were expected to be fully addressed at the gate two submission.

We have decided that the actions have been fully addressed in the gate two submission. Further detail of our conclusion against each individual action is shown in Appendix B.

5. Delivery Incentive Penalty

We have not applied delivery incentive penalties to this solution, as a result of the assessment carried out on the gate two submission.

6. Proposed changes to partner arrangements

There are no changes proposed to partner arrangements from gate two.

7. Gate three activities and timing

The solution will continue to be funded to gate three as part of the standard gate track.

For its gate three submission, we expect Thames Water to complete the activities listed in PR19 final determinations: strategic regional water resources solutions appendix, as expanded on in section 7.1 of the solutions gate two submission. Activities are expected to be completed in line with delivery incentives and expectations set out in RAPID's gate three guidance. We also expect the actions listed in appendix A to be addressed.

7.1 Gate three timing

Thames Water have proposed a date for gate three of November 2023 and additional midgate checkpoints for Mogden and Beckton options in May 2024. This is proposed alongside a forward programme of gate four in September 2024, proposed planning application submitted in April 2024, solution construction ready in early 2027, and solution operational in 2031.

We agree that London Water Recycling gate three should be November 2023, for RAPID to efficiently assess progress of activities, ahead of the solutions proposed planning application.

Regarding Thames Water proposal for a mid-gate checkpoint, between gates two and three, in May 2024 for Mogden Water Recycling and Beckton Water Recycling, RAPID has decided that solution owners should bring this discussion to a regular checkpoint meeting at an opportune time and formalise any requests relating to scheme progression with associated reasoning through a letter to RAPID.

We have reviewed your forward programme for gate four. Gate four should be scheduled a minimum of a month after the acceptance of planning applications, so suggest gate four should be May 2024.

The forward programme proposed by the solution is in line with the principles of RAPID's standard programme. Funding arrangements are set out in section 3.2 of this document.

8. Next steps

Following publication of this standard gate two draft decision solution, owners and other interested parties are invited to respond to the draft decision. Representations, including evidence from solution owners that priority actions (identified in the Appendix) have been addressed, can be made by email to rapid@ofwat.gov.uk and will close at 6pm on 11 May 2023.

All representations will be considered before our final decision is published at 10am on 28 June 2023.

Appendix A: Gate two actions and recommendations

Priority A	ctions – to be ad	dressed by 31 August 2023	
Number	Area	Detail	
1	Solution Design	Provide information as to why Mogden (MOG) should be taken forward beyond gate two when not featured in any plans.	
2	Environment	Identify mitigation measures for all environmental impacts for each option before final WRMP's are published.	
3	Environment	Teddington DRA: Work with the Environment Agency to assess indicative permit limits and design tertiary treatment works to meet permit requirements. Work with the Environment Agency to discuss permit conditions and other temperature mitigation measures required to protect the environment. Undertake bench and pilot testing of treatment works	
4	Environment	Teddington DRA: Work with the Environment Agency to scope and progress further work to understand the impacts on Olfactory chemicals from scheme operation and any subsequent impact on migratory fish	
5	Environment	Teddington DRA: Improve modelling capability to extend water quality modelling over Teddington weir and into the upper tideway to fully understand any changes to water quality flowing over/down fish passes and into Teddington weir pool and the upper tideway.	
6	Environment	Teddington DRA: Work with Environment Agency fisheries teams to design the intakes and outfalls, specifically to work with us to manage and mitigate any impacts on velocity, fish and the environment of scheme operation and the depleted reach.	
7	Environment	Teddington DRA: Extend assessment of fisheries impacts to include other migratory fish in the freshwater Thames	
8	Environment	Teddington DRA: Work with the Environment Agency to undertake a full review of potential environmental impacts and mitigation measures available and then ensure appropriate mitigation measures be implemented wherever feasible.	
9	Environment	Teddington DRA: Provide further information on how operation of the scheme will interface with the Lower Thames Operating Agreement and Teddington Target Flow TTF to ensure that the environment is not impacted upstream in the River Thames.	
10	Environment	Teddington DRA: Work with the Environment Agency to scope any further modelling requirements to understand how operation of the scheme may impact on the environment under different environmental conditions – for example consecutive years use or if needed at other times of the year.	
11	Environment	Beckton: Work with the Environment Agency to scope environmental assessments required to meet a gate three checkpoint for Beckton and Mogden Water Recycling, ensuring that any further work for Beckton includes water quality	

		analysis and modelling of the freshwater River Lee and Water Framework Directive	
		(WFD) assessment of Lee valley reservoirs	
12	Environment	Beckton: Provide information on mitigation measures to be applied at Beckton, including water treatment AWRP, intake/outfall designs, operating regime option and any other mitigation measures required to protect the environment.	
13	Environment	Work with the Environment Agency to scope environmental assessments for Beckton and Mogden Water Recycling, ensuring that any further work for Beckton includes water quality analysis and modelling of the freshwater River Lee and WFD assessment of Lee valley reservoirs	
Actions –	to be addressed	in standard gate three submission	
Number	Area	Detail	
1	Solution Design	Provide further information on how operation of the scheme will interface with Lower Thames Operating Agreement and treatment to flow to ensure that the environment is not impacted upstream in the River Thames	
2	Environment	Revise carbon assessment to address gaps identified by consultancy review:	
		 Clear consideration of how whole life carbon (WLC) has been reduced within the design Use relevant policies, frameworks and approaches to drive down carbon emissions within the design Embrace innovative designs and renewable energy opportunities or opportunities to sequester carbon Focus on carbon driven down solution costs Improve demonstration of scope of 1,2 and 3 emissions Further explanation of materials selection and whether lowest carbon options have been considered Further work on how scheme development can help shape availability of low carbon materials in the supply chain Improved monitoring and reporting of project emissions during and post project completion 	
Recomme	ndations		
Number	Area	Detail	
1	Solution Design	Confirm whether Teddington DRA transfer to Lee Valley Reservoirs will feed Coppermills WTW to support increased development in East London	
2	Evaluation of Costs and Benefits	Provide total planning period indicative option cost (net present value) figures for each gate to show how solution costs have evolved for the preferred option.	

Appendix B: Gate one actions and recommendations

Actions – addressed in standard Gate two submission				
Number	Area	Detail	RAPID assessment outcome	
1	Solution Design	Develop utilisation figure to be determined by regional modelling and to consider impacts of in-combination effects.	Complete	
2	Costs and Benefits	Use outcomes from the regional Modelling to determine drought resilience.	Complete	
3	Costs and Benefits	Ensure a best value analysis, following relevant guidelines and including environmental/social/economic costs, is undertaken and presented for all of the sub-options within this solution.	Complete	
4	Environment	Review the scope of environmental impacts and ensure engagement with regulatory partners to identify where mitigation can be built into solution design.	Complete	
5	Environment	Review the scope of any future statutory Strategic Environmental Assessment (SEA) to agree objectives and recommendation additions/subtractions (for example, the guide questions in SEA focus on reducing carbon emissions and the longevity of the option, and less so on the impacts on the environment in light of climate change).	Complete	
6	Environment	Update environmental annexes to reflect comments and agreed actions as a priority, including consideration of Swanscombe MCZ in the SEA.	Complete	
Recommendations				
Number	Area	Detail	RAPID assessment outcome	
1	Stakeholders	Produce a detailed stakeholder engagement plan, including identification of wider / local stakeholders.	Complete	
2	Costs and Benefits	Further consider social and amenity value, if this is limited due to type of	Complete	

		solution, this can be explained in the	
		submission.	
3	Planning	Carry out a detailed assessment of interdependencies and in combination	Complete
		impacts with other RAPID solutions and non-RAPID options, including Deephams reuse, following outputs of regional modelling.	
4	Environment	Explain how Thames Water will seek to influence the supply chain to reduce scope 3 carbon emissions and outline how the root cause of the issues ties in with the solution behaviour change/consumption/wastewater disposal etc	Complete
5	Water Quality	Particular attention should be paid to the recommendations and learning from previous DWI events where changes in raw water sources impacted on drinking water supplies.	Complete

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