

Regulators' Alliance for Progressing
Infrastructure Development

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Strategic regional water resource solutions: Standard gate one draft decision for Fens Reservoir



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1. Introduction

The purpose of this publication is to set out our draft decision in respect of the Fens reservoir strategic regional water resource solution submitted for the standard gate one assessment by solution sponsors Anglian Water and Cambridge Water¹. This is a new solution that it is proposed should join the RAPID programme consisting of a 50,000 Ml storage reservoir and a potential potable water transfer to Cambridge Water. The solution includes two options for the reservoir: a baseline design, consisting of the Fens PWS reservoir, pipelines, and water treatment works (WTW); and a multi-sector benefits design, including for the addition of a flood storage area (FSA), farm reservoirs and wetlands. Further information concerning the background and context of the Anglian Water and Cambridge Water Fens reservoir can be found in the Fens reservoir publication document on the [Anglian Water](#)² and Cambridge Water websites.

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

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 and, where a solution impacts Wales, Natural Resources Wales, 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 sponsors 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 5pm on 8 October 2021. All representations will be considered before our final decision is published on 16 November 2021.

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at www.ofwat.gov.uk/regulated-companies/rapid, unless you indicate that you would like your representation to remain unpublished.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 and Natural Resources Wales. Information provided as representations, including personal information, may be published or disclosed in accordance with access to information legislation – primarily the Freedom of Information Act 2000 (FoIA), the General Data Protection Regulation 2016, the Data Protection Act 2018, and the Environmental Information

¹ Referred to in PR19 final determination as “Fens reservoir”

² [strategic-solution-gate-one-submission-preliminary-feasibility-fens-reservoir.pdf \(anglianwater.co.uk\)](#)

Regulations 2004. For further information on how we process personal data please see our [privacy policy](#).

If you would like the information that you provide to be treated as confidential, please be aware that under the FoIA there is a statutory [Code of practice](#) which deals, among other things, with obligations of confidence. In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information, we will take full account of your explanation, but we cannot give an assurance that we can maintain confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on Ofwat.

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

2. Solution assessment summary

Table 1 Draft gate one submission decision summary

Recommendation item	Fens reservoir
Solution sponsors	Anglian Water and Cambridge Water
Should further funding be allowed for the solution to progress to gate two?	Yes
Is there evidence all expenditure is efficient and should be allowed?	Not applicable
Delivery incentive penalty?	Not applicable
Is there any change to partner arrangements?	Not applicable
Is there a need for a remediation action plan?	No
Funding will be allowed at PR24 for the solution to join the standard gate two programme.	

2.1 Solution progression and funding to gate two

In considering whether this solution should join the RAPID programme we considered the following questions:

- Is there value in accelerating the solution’s development to be ‘construction ready’ for the 2025–2030 period?
- Does the solution need additional enhancement funding for investigations and development?
- Does the solution need the additional regulatory support and oversight provided by the Ofwat gated process and RAPID?
- Does the solution provide a similar or better cost / water resource benefit ratio compared to current solutions?
- 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 current solutions?

Table 2 Draft decision summary to join the RAPID programme

Recommendation item	Additional solution (Fens reservoir and Anglian to Cambridge transfer)
Solution sponsor	Anglian Water and Cambridge Water
Is there value in accelerating the solution's development to be 'construction ready' for the 2025-2030 period?	Yes
Does the solution need additional enhancement funding for investigations and development?	Yes
Does the solution need the additional regulatory support and oversight provided by the Ofwat gated process and RAPID?	Yes
Does the solution provide a similar or better cost / water resource benefit ratio compared to current solutions?	Yes
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 current solutions?	Yes
<p>Additional ring-fenced funding is allowed for progressing this solution through to gate four with a total allowed development allowance of £24.55 million (for gate two to four activities). It will be shared equally between the solution sponsors, Anglian Water and Cambridge Water, unless sponsors agree and notify RAPID of alternative cost sharing proportions before the end of the representation period.</p> <p>This funding is allowed in accordance with the conditions and requirements as outlined in the PR19 final determinations: Strategic regional water resources solution appendix</p>	

This solution has been presented to RAPID to support both Anglian Water and Cambridge Water customers. The solution will be integrated into the wider Future Fens strategy which is being developed jointly with Water Resources East and the Environment Agency to address the water problems of the Fens in a holistic way.

We conclude that there is value in accelerating the solution development to be construction ready for the 2025-30 period. Although we await the outcomes of regional modelling, the deficit is expected to be larger in WRMP24 than in WRMP19 due to the requirement for additional drought resilience, enhanced environmental benefits, particularly in relation to reducing reliance on abstraction from sensitive chalk catchments, and housing growth, particularly the OxCam Arc. There is value in this solution being accelerated now to be "construction ready" in the 2025-30 period rather than waiting for WRMP24 investigations to conclude

The solution has received some funding as part of Anglian Water's adaptive planning programme, however, we propose to make further funding available to progress the solution to gate four.

The additional regulatory oversight and governance and structure around the RAPID process will support Anglian Water and Cambridge Water in working together to develop this solution. There is also potential for realisation of efficiencies, especially working in parallel with the South Lincolnshire reservoir.

Recent investigations have shown that using multiple sources improves the deployable output for the same size reservoir, making this solution more competitive against other possible solutions. We expect more clarity on the cost benefit ratio in the regional plan and at gate two.

We conclude that the solution has the potential to provide similar or better value compared to other sources. The Fens Water Partnership has been established to identify and advance multi-sector benefits. Links have already been identified to flood storage, biodiversity and agricultural needs. The solution could form a key part of a broader water management strategy for the Fens as part of the Future Fens collaborative initiative.

Water customers should only be expected to fund solutions consistent with the proper carrying out of the functions of a water company. As the solution develops, we expect third parties who will benefit from the solution to contribute a fair share of costs according to their own responsibilities and the benefits they realise.

The evidence suggests that the solution is a potentially valuable way of supplying water to customers. Based on our assessment of the potential solution costs and benefits we have concluded that the solution should progress through the gated process to gate two, and that the funding identified in Table 3 should be allowed.

Table 3 Fenland reservoir funding allowances

	Gate one	Gate two	Gate three	Gate four	Total
Fens reservoir	N/A	£3.78m	£8.82m	£10.08m	£22.68m
Anglian to Cambridge Transfer	N/A	£0.47m	£1.09m	£1.24m	£2.8m
Adaptive planning allowance	10% allowed for gate one	-£158k	-£368k	-£419k	-£943k
Total	N/A	£4.09m	£9.54m	£10.91m	£24.55m
Comment	10% of adaptive planning allowance allowed for gate 1	15% of combined lower estimate of £28.31m minus adaptive planning allowance	35% of combined lower estimate of £28.31m minus adaptive planning allowance	40% of combined lower estimate of £28.31m minus adaptive planning allowance	90% of combined lower estimate of £28.31m minus adaptive planning allowance

Funding will be shared equally between the solution sponsors, Anglian Water and Cambridge Water, unless sponsors agree and notify RAPID of alternative cost sharing proportions before the end of the representation period.

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

The solution is admitted to the programme as a single solution due to the inter-dependency between the reservoir and the transfer. However, we expect the solution sponsors to continue to present solution costs and gate costs divided into reservoir and transfer costs in their gated submissions.

2.2 Evidence of efficient expenditure

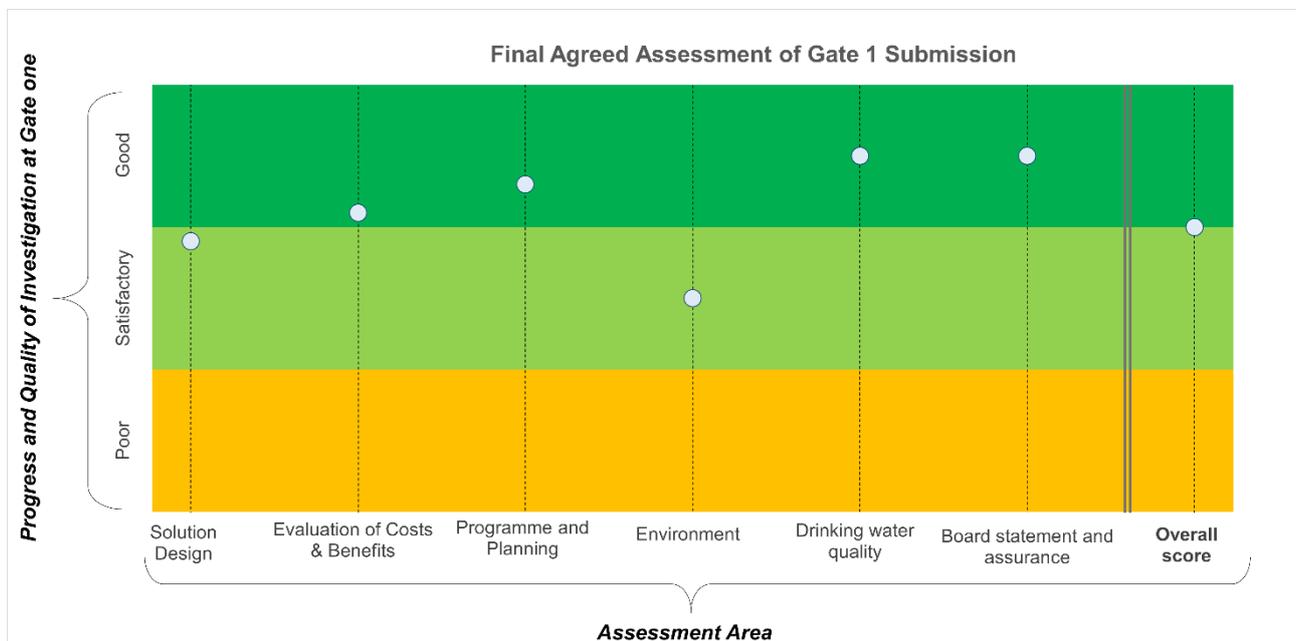
This is a new solution to the programme being proposed at gate one. The Fens reservoir solution has received no funding from RAPID to date and therefore no assessment of expenditure has been undertaken.

2.3 Quality of submission

The aim of the assessment was to determine whether appropriate progress has been made towards delivery of the solution. We recognise at this stage solutions may be at different development points and the assessment takes this into account.

Figure 1 shows our assessment of the work completed on the solution, which was presented in the 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 [our guidance published on 22 February 2021](#).³ We also assessed the Board assurance provided.

Figure 1. Submission Assessment



Our overall assessment for the solution submission is that it is good (meets expectations).

2.3.1 Solution Design

Our assessment of the solution design considered the quality of the evidence provided on the initial solution and 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.

³ <https://www.ofwat.gov.uk/wp-content/uploads/2021/02/Strategic-regional-water-resource-solutions-guidance-for-june-2021.pdf>

We consider Anglian Water and Cambridge Water have provided satisfactory evidence of progress in developing the solution design for gate one. We note there are two options (public water supply and multisector), however, the submission fails to elaborate why the two options ('initial concept design' and 'adopted concept design') have been developed with the stated capacity. We would like to see evidence that demonstrates why decisions are taken to take options forward or to exclude and to understand that a range of options have been sufficiently investigated. Although the site has not yet been selected, the submission would benefit from an evaluation of all options under various topics (water resource benefits, wider resilience benefits, costs, environmental impacts, interaction with other sources, etc.). More detailed assessment of operation, utilisation and interdependencies should be undertaken following regional modelling, including interaction with other solutions and options.

Stakeholder engagement plans for this solution should include the Consumer Council for Water.

2.3.2 Evaluation of Costs & Benefits

Our assessment of the evaluation of costs and benefits considered the quality of the information provided on initial solution costs; the societal, 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 Anglian Water and Cambridge Water have provided good evidence of evaluating the costs and benefits of the solution to an appropriate standard for gate one. This is a new solution to the programme, and work needs to be completed ahead of gate two to bring it up to a similar level of understanding as the other solutions in the RAPID programme. In particular, the best value criteria and method should be clarified for gate two.

If the public water supply option is selected flood risk, irrigation, and other benefits won't be delivered. We support the concept of providing resilience benefits to other water users and developing the solution so that it enhances environmental and flood resilience in the local catchment. Where benefits are provided to other water users, those users should contribute a fair share of the costs.

We recommend that a comprehensive assessment of all possible wider benefits that a solution might provide be considered ahead of gate two.

Regional model outputs are required to confirm size and yield of the solution. Natural capital and biodiversity net gain assessments need to be completed ahead of gate two.

2.3.3 Programme and Planning

Our assessment of the programme and planning considered whether Anglian Water and Cambridge 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.

We consider the evidence provided by Anglian Water and Cambridge Water regarding the programme and planning, risks and issues and the procurement and planning route strategy for Fens reservoir to be of good detail and quality for gate one. A full risk register should be shared with the Environment Agency and Natural England to ensure a work programme is in place to address environmental risks in gate two.

2.3.4 Environment

Our assessment of environment considered the initial 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.

We consider Anglian Water and Cambridge Water to have provided satisfactory evidence of progress in the environmental assessment, potential mitigations, future work programmes and embodied and operational carbon commitments for gate one.

Regulatory and environmental assessments should be refined for gate two, including review of scopes and further monitoring. The companies should work with the Environment Agency and Natural England to ensure potential risks are addressed through detailed work programme, including scope and mitigation requirements for identified impacts.

The submission provides clear assessment of operational and embodied emissions and states the methodology and assumptions used to carry out the required assessment. However, the discussion around its alignment to the water sector commitment to net zero by 2030 could be clearer.

2.3.5 Drinking water quality

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

We consider that the information provided in this submission on drinking water quality risks, stakeholder engagement and DWSPs for gate one was good. We expect to see further development of DWSPs, water quality monitoring, including for emerging contaminants, and wider stakeholder engagement with ongoing dialogue with the respective water quality teams in gate two.

2.3.6 Board Statement and Assurance

The evidence provided relating to assurance has been assessed as good. The solution sponsors have provided Board statements that indicate:

- they support the recommendation for the solution to join the RAPID programme; and
- they are satisfied that sufficient progress has been made and that the solution will be developed to the expected standard by gate two.

These statements are accompanied by an explanation of the approach to assurance and a description of the evidence and information that the Boards have relied on in giving the statements.

3. Proposed changes to partner arrangements

This is a new solution. The proposed partners are Anglian Water and Cambridge Water.

We note that the submission states that Essex and Suffolk Water is also a key stakeholder and that it is actively involved in the solution's development and that it will consider if / whether to join ahead of gate two. We would like to understand in more detail how Essex and Suffolk Water will be involved between gate one and gate two and request that this information is provided during the representation period.

4. Actions and recommendations

Where the submission has not been assessed as ‘meeting expectations’ 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 gate two.

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 one 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 and for this reason directly relate to the assessment of delivery incentives set out in this publication. The response to the priority actions will determine whether a delivery incentive is imposed; and the extent to which the delivery incentives can be mitigated by the solution sponsors. If all priority actions are satisfactorily completed, then the penalty will not be imposed. If one or more of priority actions are not satisfactorily completed, then the whole of the penalty will be imposed.

We have also identified actions that should be addressed in full in the gate two submission. The response to these actions will influence the assessment of the gate two submission.

Recommendations are issues where additional information or clarification could improve the quality of future submissions. All priority actions, actions and recommendations are listed in the Appendix.

5. Gate two activities

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

The outputs of the PR19 funded adaptive planning work for this solution should be provided in conjunction with the gate two submission.

For its gate two submission, we expect Anglian Water and Cambridge Water to complete the activities listed in [PR19 final determinations: strategic regional water resources solutions appendix](#) as expanded on in its gate one submission.

6. Next steps

Following publication of this gate one draft decision solution sponsors and other interested parties are invited to respond to the draft decision. Representations can be made by email to rapid@ofwat.gov.uk and will close at 5pm on 8 October 2021. All representations will be considered before our final decision is published on 16 November 2021.

Appendix: Actions and Recommendations

Actions – to be addressed in gate two submission		
Number	Section	Detail
1	Solution design	A number of candidate locations must be identified, and the implications must be evaluated. The implications that are evaluated should include financial costs (Capex and Opex), carbon cost, flood risk benefit, environmental, and social benefits. A clear table comparing these for the sub-options will be helpful.
2	Solution design	Ensure utilisation is determined, including uncertainty and sensitivity. Provide detailed explanation of the methodology for defining utilisation from the regional modelling.
3	Solution design	Provide a clear discussion of Fens reservoir's interaction with other sources and state which other water companies will be involved in the conjunctive use of this solution. Provide more detail about the proposed transfer to Cambridge Water
4	Environment	Assess carbon impacts and the solutions alignment to net zero for operational emissions by 2030. Explain how the solution is aligned with the ambition of the All Company Working Group on carbon.
5	Solution design	Investigate the integration of flood risk management opportunities and how these will interact with water resource management requirements under appropriate climate change scenarios.
6	Evaluation of costs and benefits	Develop biodiversity net gain and natural capital assessments as a priority together with amenity and landscape impact reports
7	Environment	The Habitats regulation assessment should consider the functionally linked habitats and screening of the Breckland SAC.
8	Evaluation of costs and benefits	Engage third parties who will benefit from the solution to contribute a fair share of the development costs, particularly where this significantly increases solution costs.
Recommendations		
Number	Section	Detail
1	Evaluation of costs and benefits	Ensure wider resilience benefits are fully investigated and quantified as part of the submission for all options.
2	Evaluation of costs and benefits	Include which option is considered best value (rather than just least cost) for customers and the environment and the criteria and method used for best value.

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3	Environment	Prioritise the identification of environmental risks, impacts and propose mitigation requirements where necessary.
4	Environment	Prioritise the development of environmental modelling, monitoring plans, and approach to in-combination assessment



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