Regulators' Alliance for Progressing Infrastructure Development

December 2021

RAPID

Strategic regional water resource solutions: Standard gate one final decision for Anglian to Affinity Transfer

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Environment Agency

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Contents

1. Introduction

The purpose of this publication is to set out our final decision in respect of the Anglian to Affinity Transfer strategic regional water resource solution submitted for the standard gate one assessment by solution sponsors Anglian Water and Affinity Water[1]. The solution includes four options within it. Further information concerning the background and context of the Anglian Water and Affinity Water Anglian to Affinity Transfer can be found in the Anglian to Affinity Transfer publication document on the Anglian Water[2] and Affinity Water websites[3].

This publication should be read in conjunction with the final decision letter issued to each solution sponsor. Both this document and final 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 have provided feedback to RAPID. The Consumer Council for Water provided input to the assessment on customer engagement.

The solution sponsors and other interested parties had the opportunity to respond to the draft decision during the representation period, which followed the publication of the draft decisions on 14 September 2021. We have taken all relevant representations into account in making our final decision.

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

[1] Referred to in PR19 final determination as "Anglian to Affinity Transfer"

[2] strategic-solution-gate-1-submission-preliminary-feasibility-assessment-anglian-to-affinity.pdf (anglianwater.co.uk)
[3] b8ffa9f6d22e247f963d96a457838dab_strategic-solution-gate-one-submission-preliminary-feasibility-assessment-anglian-to-affinity.pdf (amazonaws.com)

2. Solution summary

Anglian to Affinity transfer (A2AT) is a proposed new transfer of 50 Ml/d to 100Ml/d. This solution is dependent on a new source of water in the Anglian Water region. Sources include the South Lincolnshire Reservoir (SLR), Fens Reservoir or a new intake from the River Trent via Rutland Water.

Figure 1: A2AT Schematic

The A2AT solution has identified four options to supply water to either the Affinity Water Lee water resource zone or the Stort water resource zone. Two options are dependent on implementation of the SLR solution, The new Fens reservoir is also a potential source of water, and the final option relies on abstraction of water from the River Trent to supplement the yield of the Anglian Water reservoir at Rutland Water.

The SLR and Fens reservoir solutions are also part of the RAPID programme. No sites have yet been selected for these solutions.

The A2AT is being sized to provide a deployable output of between 50Ml/d and 100Ml/d.

3. Summary of representations

3.1 Representations received

We have received the following representations relevant to Anglian to Affinity Transfer.

Table 1 Summary of representations

Representation from	Summary of representation
Group Against Reservoir Development (GARD)	**Transparency of cost estimates** GARD cites concerns over a lack of transparency in solution cost estimates generally, requesting further detail to the level that was included in the Fens reservoir gate one report. **Deployable output and stochastic flow data** GARD is also concerned about a lack of transparency in deployable output (DO) assessments, suggesting the evidence should be made available for scrutiny of the assumptions, data, and outputs of the modelling. GARD have concerns over the reliability of stochastic river flow data, such as: inaccurate weather data for groundwater-dominated catchments; the stochastic weather base period not containing any long duration droughts; the base period excluding weather since 1997; and the geological difference in catchments not being reflected in the generated Thames and Severn flows. **Carbon costing** GARD asserts that the gate one reports are poor on the subject of carbon costing of strategic options and have shortcomings in the data presented.
Affinity Water and Anglian Water	Welcomed further discussion to understand the details behind the environment assessment area rating to ensure a "good" rating is maintained for gate two. Confirmed that funding to gate two and allowances remain the same as the final determination. And that forecasting suggests no spend above gate two allowance. Confirmed that natural capital assessments and biodiversity net gain assessments will be reassessed. And that the size and yield of preferred sub-option will be refined following regional modelling outputs.

	Confirmed that the gate two programme includes a package of work on environmental assessment which will build upon and refine the outputs that were presented at gate one to identify the necessary monitoring and mitigation. Confirmed that the Drinking Water Safety Plan presented at gate one will be expanded upon ensuring that additional considerations are included appropriately. Confirmed that no adjustments have been made to the costs claimed for gate one activities. And that total spend for gate one is broadly in line with the amount claimed. Confirmed that further work is planned on the utilisation of the proposed solutions for gate two. Confirmed that the gate two programme includes early development work on connections to understand how this new transfer scheme will connect with existing infrastructure and how operations may have to change to connect the transfer. Confirmed that an in-combination assessment will be included in the Water Resources East (WRE) regional plan to determine interactions between options. Also confirmed that competing demands, including from the energy sector, will also be assessed using WRE regional system simulations. Confirmed that investigations are being conducted to consider the extent of abstraction reductions to benefit chalk streams, the timing of their implementation and the interdependencies between environmental protection and solution delivery. Confirmed that costs and benefits of the proposed solution will be refined as required during gate two.

3.2 Our Response

We have taken the representations into account in our final decisions and set out below our response to the key points and issues raised.

3.2.1 Transparency in cost estimates

We do not consider information about solution costs to be material to gate one decisions. Gate one is a checkpoint and is the first opportunity to check the progress made by solution

owners on investigations and development of solutions in the gated process. At gate one, all solutions were expected to progress to gate two and continue to receive ring-fenced funding unless there was a clear reason why they should not.

Solution costs will be considered further from gate two onwards and in regional plans and water resource management plans. We will provide companies with guidance on presenting and publishing solution costs in their gate two submissions.

3.2.2 Deployable Output assessments and stochastic flow data

We consider that the work completed on the DO assessment is sufficient for gate one. The water companies will continue to develop the solutions and evidence surrounding them. Guidance will be provided on our expectations for a more detailed examination of deployable output at gate two. The use of stochastic flow data reflects the requirement to test droughts larger than those observed in the historic record, such as drought events with 1:500 year return periods. Solutions generation of stochastic flow data is expected to follow Water Resource Planning Guidelines Supplementary Guidance: Planning to be resilient to a 1 in 500 drought (England), and Supplementary Guidance: Stochastics. We will pass on the specific points raised to solution owners for consideration as they develop their deployable output assessments further.

3.2.3 Carbon costing

Gate one assessment of solution submissions took account of the fact that assessments of the carbon implications of the solution would inevitably contain a significant degree of uncertainty given the stage of solution development. We consider that the level of information presented on carbon was sufficient for gate one. Solution development to gate two should follow the Water Resources Planning Guidelines for WRMP24 section 8.3.2 which states expectations for accounting for and reducing greenhouse gas emissions. The design should consider; build nothing, build less, build clever and build efficiently throughout the development of the solution, with offsetting only as a last resort. We expect all direct mitigations to be included in the solution costs. The solution should also be considered by the water company within their wider carbon plans.

We will require any carbon assessment annexes to be published alongside the submission at gate two

3.2.4 Gate two plans – joint representation from Anglian Water and Affinity Water

We welcome the work proposed by the Anglian to Affinity transfer team to address the actions and recommendations as set out in the Appendix and have updated the section of our decision relating to gate two activities to reference this.

3.2.5 Utilising gate one underspend at gate two

Some solution owners raised concerns in their representations regarding whether gate two allowances would be sufficient for completion of gate two activities and suggested that gate one underspend should be carried forward to gate two. The percentage allocations to each gate in our Final Determination at PR19 were inherently imprecise and were based on our understanding of likely profile of activities to be carried out in progressing the development and investigation of solutions taking into account companies' proposals in this respect. We now have an improved understanding of the activities to be carried out at gate two and consider that it will be beneficial to allow funding allowance that has not been used at gate one to be made available to solution owners for carrying out gate two activities.

We have therefore decided to merge gate one and gate two allowances for this solution. This will allow any underspend on gate one activities to be used for gate two activities. We will continue to scrutinise expenditure to ensure that it is appropriate and efficient. Companies remain responsible for management of cost risk to meet gate requirements.

4. Solution assessment summary

Table 2. Final decision summary

Recommendation item	Anglian to Affinity Transfer
Solution sponsors	Anglian Water and Affinity 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?	Yes
Delivery incentive penalty?	No
Is there any change to partner arrangements?	No
Is there a need for a remediation action plan?	No

4.1 Solution progression and funding to gate two

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 further funding be allowed.

We are not changing the funding of this solution. This solution's total allowance and gate allowances remain the same as the final determination.

We have decided to merge the gate one and gate two allowances. This results in a total allowance of £2.29m being available at gate two. Companies remain responsible for management of cost risk to meet gate requirements.

4.2 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.

Our assessment of the efficient costs as spent on gate one activities results in an allowance for this solution of £0.57m (of £0.57m claimed). These costs reflect final and reconciled costs.

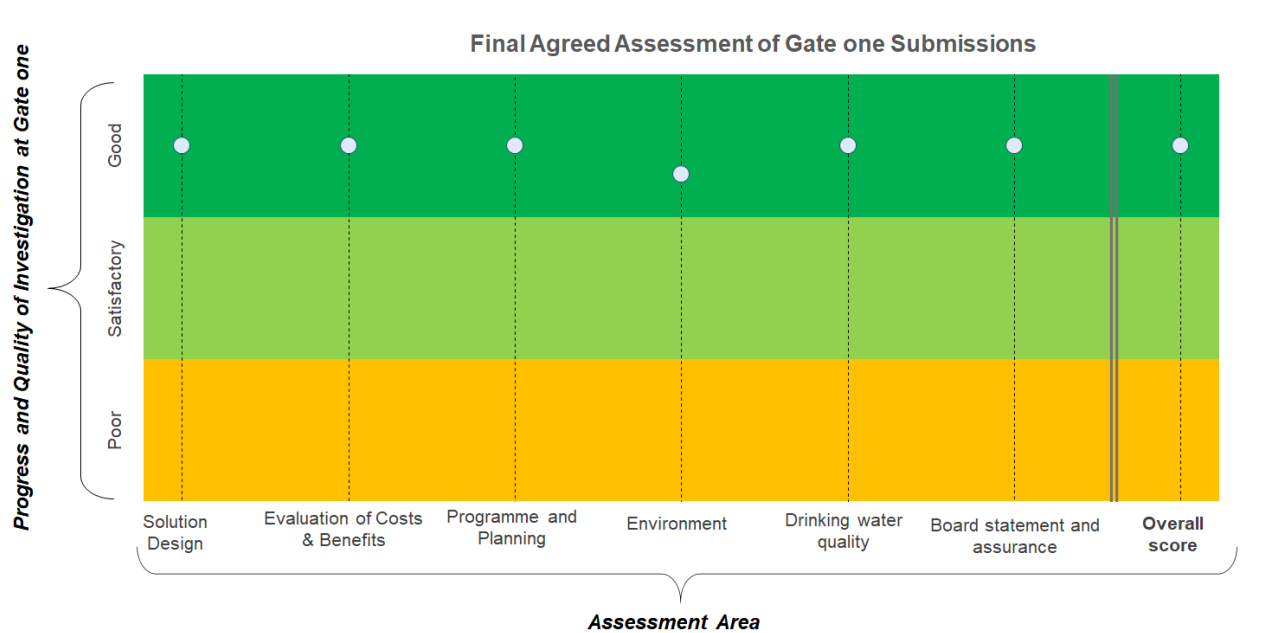
We have made no adjustments to the costs claimed.

4.3 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 2 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. We also assessed the Board assurance provided.

Figure 2. Submission Assessment



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

4.3.1 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.

We consider Anglian Water and Affinity Water to have provided good evidence of progress in developing the solution design for gate one. For gate two more detailed assessments of

operation, utilisation and interdependencies must be undertaken following regional modelling, including interaction with other strategic resource solutions and other options and uncertainty and sensitivity testing.

4.3.2 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 that Anglian Water and Affinity Water have provided good evidence of evaluating the costs and benefits of the solution to a good standard for gate one although we expect to see this expanded upon with more detail in the gate two submission. Natural capital assessments, and biodiversity net gain assessments need to be reassessed at gate two. Following outputs of regional modelling, wider benefits will need to be refined for the preferred sub-option and the size and yield of the option will need to be confirmed.

4.3.3 Programme and Planning

Our assessment of the programme and planning considered whether Anglian Water and Affinity 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 Affinity Water regarding the programme and planning, risks and issues and the procurement and planning route strategy for the Anglian to Affinity Transfer to be of good detail and quality for gate one.

A full risks register should be shared with the Environment Agency and Natural England to ensure the work program is in place to address environmental risks in gate two.

4.3.4 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 Affinity Water to have provided sufficient 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 a review of scopes and further monitoring. Anglian Water and Affinity Water are requested to work with the Environment Agency and with Natural England to ensure potential risks are addressed through a detailed work programme, including the scope of any mitigation needed for identified impacts.

4.3.5 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.

4.3.6 Board Statement and assurance

The evidence provided relating to assurance has been assessed as good.

The solution sponsors have provided Board statements that indicate:

- their support of submission recommendations for solution / option progression;
- they are satisfied that progress on the solution is commensurate with the solution being construction ready for 2025-30;
- they are satisfied the work carried out to date is of sufficient scope, detail and quality as would be expected for a large infrastructure project of this nature at this stage; and
- that expenditure has been incurred on activities that are appropriate for gate one and is efficient.

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.

5. Proposed changes to partner arrangements

There are no proposed changes to partner arrangements.

6. 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 the 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.

No priority actions have been identified for the Anglian to Affinity Transfer, therefore we do not require the solution sponsors to provide us with a remediation action plan. The full list of other actions and recommendations can be found in the appendix.

7. Gate two activities

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

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

8. Incentives for gate two

For gate two we maintain the same arrangements for incentives as applied in gate one – that is, a maximum penalty of 30% of company's total efficient gate funding that could be applied to solutions that have not made adequate progress, where work is of inadequate quality, or the submission deadline is missed.

Penalties will be determined on a case by case basis taking into account:

- the level of completeness and the overall quality of the work carried out in investigating and developing the solution based on the evidence summarised in the submission;
- the evidence and justification provided where aspects of the work carried out fall short of expectations; and
- the impact on the decisions and delivery of solutions, including the extent to which deficiencies adversely impact customers.

Penalties will be applied through the PR24 reconciliation mechanism, as described in 'PR19 final determinations: Strategic water resource solutions'.

There will be no opportunity to remediate deficiencies identified at the assessment in order to defer penalties.

Appendix: Actions and recommendations

Actions – to be addressed in gate two submission		
Number	**Section**	**Detail**
1	Solution design	Ensure utilisation is refined as part of gate two, including uncertainty and sensitivity, at least to the standard described in response to query AAT003 Q3.
2	Solution design	Assess how any new transfer infrastructure will connect with existing infrastructure, particularly how the operations at Rutland/Grafham may have to change to connect the transfer.
3	Solution design / Environment	In-combination assessment must include all relevant interactions between options. We expect robust assessment for any options that are screened out as part of in-combination assessment - You should consider the potential competing resources from the energy sector. - You should consider the impact on Rutland Water.
Recommendations		
Number	**Section**	**Detail**
1	Evaluation of costs and benefits	You should explain how the chalk streams will benefit as part of the 'need' case for gate two when the route and deployable output is known.
2	Evaluation of costs and benefits	You should explain 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 ahead of gate two.

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