

July 2023

Standard gate two final decision for Cheddar 2 source and transfer

Contents

1. Introduction	3
2. Solution Summary	4
2.1 Solution summary	4
3. Summary of representations	5
3.1 Representations received	5
3.2 Our response	5
3.2.1 Gate timing	6
3.2.2 Gate allowance	6
3.2.3 Historic environment	6
3.3 Other changes to our draft decisions	6
3.3.1 Area that we have changed not as a result of a representation	6
4. Solution assessment summary	8
4.1 Solution progression to standard gate three	8
4.2 Solution funding to standard gate three	10
4.3 Evidence of efficient expenditure	12
4.4 Quality of solution development and investigation	12
4.4.1 Solution Design	13
4.4.2 Solution costs	14
4.4.3 Evaluation of Costs and Benefits	14
4.4.4 Programme and Planning	14
4.4.5 Environment	15

4.4.6	Drinking water quality	15
4.4.7	Board Statement and assurance.....	16
5.	Actions and recommendations	17
5.1	Actions and recommendations from gate two assessment.....	17
5.2	Actions and recommendations from gate one assessment.....	17
6.	Delivery Incentive Penalty	19
7.	Proposed changes to partner arrangements	20
8.	Gate three activities and timing.....	21
8.1	Gate three timing.....	21
Appendix A: Gate two actions and recommendations.....		22
Appendix B: Gate one actions and recommendations.....		25

1. Introduction

The purpose of this publication is to set out our final decision about whether the Cheddar 2 source and transfer¹ solution should continue to receive development funding². The solution owners Wessex Water and Bristol Water submitted their standard gate two reports on 14 November 2022 for assessment. Further information concerning the background and context of the Bristol Water and Wessex Water Cheddar 2 source and transfer can be found in the Cheddar 2 publication document on the Wessex Water and Bristol Water website³.

This publication should be read in conjunction with the final decision letter issued to each solution owner. Both this document and final 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 and Natural Resources Wales (for solutions involving 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 owners and other interested parties had the opportunity to respond to the draft decision during the representation period, which followed the publication of the decisions on 30 March 2023. We have taken all relevant representations into account in making our final decision.

We would like to thank Wessex Water and Bristol 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 “West Country north sources (and associated transfers)”

² [PR19 final determinations: Strategic regional water resource solutions appendix](#)

³ [Regional water resources | Wessex Water](#)

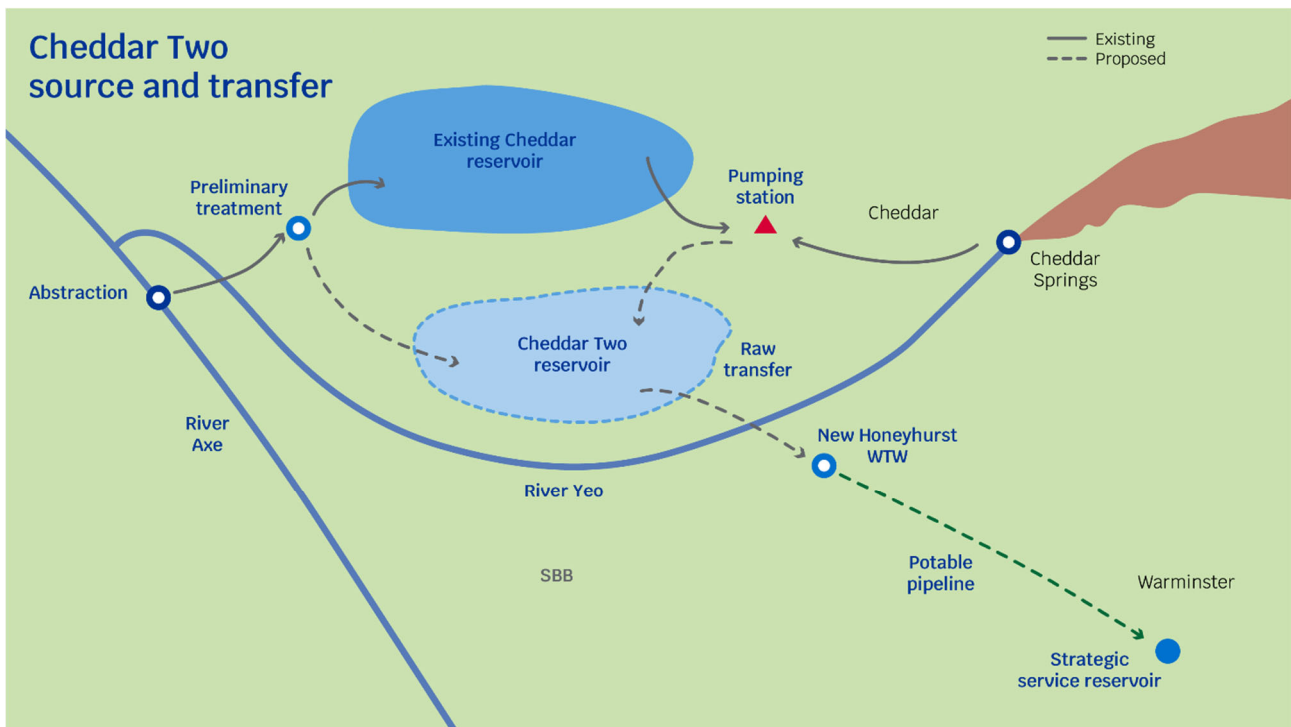
2. Solution Summary

2.1 Solution summary

The solution will involve construction of a second reservoir at Cheddar, that was previously granted planning permission which has since lapsed, and to fill it from Cheddar springs and the river Axe, under Bristol Water's existing licences. Water resources modelling has determined that the new reservoir could provide an annual average output of 14 megalitres per day (ML/d) and a summer period critical period output of 36ML/d in a 1 in 500 year drought.

As an option to support Wessex Water for evaluation in its Water Resources Management Plan (WRMP) water would then be treated at a new works before being transferred via a 55km pipeline to a strategic service reservoir in Wessex Water's groundwater area in the east of their region.

Figure 1. Cheddar 2 source and transfer Solution Schematic



3. Summary of representations

3.1 Representations received

We have received the following representations relevant to the Cheddar 2 source and transfer.

Table 1. Summary of representations

Representation from	Summary of representation
<p>West Country Water Resource Group/ Wessex Water/ Bristol Water</p>	<p>Gate timing</p> <ul style="list-style-type: none"> • Due to current delays with draft Water Resources Management Plan (dWRMP) processes they would like to review gate three timing, currently scheduled for January 2025 at the Conditional Review Point, set for 29 January 2024. By January 2024 they envisage having completed the statement of response for both companies' WRMPs and will have a much clearer position on the future programme. Their preference would be to have both Cheddar and Poole solutions with the same gate three submission date. <p>Gate allowance</p> <ul style="list-style-type: none"> • They note the adjustments that RAPID have made to their request for additional funding for gate three and confirm their acceptance of the gate three financial proposal. • They submitted revised gate two spend. <p>Priority actions, actions and recommendations</p> <ul style="list-style-type: none"> • The Priority Actions and Recommendations are noted and will be addressed by the required dates.
<p>Historic England</p>	<p>Historic Environment</p> <ul style="list-style-type: none"> • More information needed on pipeline routing and impacts. • Heritage Impact Assessment is needed to inform solution selection and design. • Support gate two submission recommendations for full Historic Desk-Based Assessment, geophysical surveys at areas of archaeological potential along the pipeline route, evaluation trenching and geophysical survey in the period to gate three. The proposed wetland area should also be considered as this is identified as having potential for unknown archaeology.

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. For the representations or parts of

representations which indicate support, provide information or give an update without raising key points and issues, we do not provide a response below but are grateful for the comments provided and confirm that we have also taken these into account.

3.2.1 Gate timing

The gate three submission date will be January 2025, This is to align gate three solutions on a similar programme. However, we agree to discuss the possibility of changing that date at the Cheddar Two Source and Transfer Strategic Resource Option (SRO) Conditional Review Point set for 29 January 2024. This is also reflected in section 8.1.

3.2.2 Gate allowance

We have updated the text in section 4.3 to reflect the change in final gate two expenditure derived from the final gate two accounts.

3.2.3 Historic environment

During further progress through the gated process, solution owners will continue to develop their environmental assessments, including consideration of the historic environment. A Development Consent Order (DCO) application or an application for local planning permission for the solution will need to be supported by an Environmental Impact Assessment (EIA) in which the effects of the solution on the historic environment will be assessed and proposals for mitigating any adverse effects will be included. The acceptability of the effects and mitigation will be a matter for the authorities determining those applications and will not be a decision reached by the gated process.

We agree that progress of this solution would benefit from engagement with Historic England and an action was included in the draft decision and is included in the final decision to engage with Historic England.

3.3 Other changes to our draft decisions

3.3.1 Area that we have changed not as a result of a representation

We have considered the representations made across the solutions on the gate three allowance and have considered further the interests of customers over the lifecycle of the solution's development and delivery. As a consequence, we have decided to increase funding

for gate three. We will consider gate four expenditure either as part of the gate three decision or the 2024 price review (PR24), as appropriate.

We are removing the cost sharing arrangements for gate three which were in our draft decision and are instead capping the allowance at a higher level.

We have adjusted table 4 of the final decision to reflect these changes and have added some explanatory text to section 4.2.

To provide necessary information for the Conditional Review Point, we expect the solution owners to provide a report on the expenditure incurred up to the Conditional Review Point and a revised forecast of expenditure to gate three. We have added an additional priority action in Appendix A to reflect this.

4. Solution assessment summary

Table 2. Final decision summary

Recommendation item	Cheddar 2 source and transfer
Solution owners	Wessex Water and Bristol Water
Should further funding be allowed for the solution to progress to gate three?	Continued development funding will be available to progress the solution up to the Conditional Review Point referred to in section 4.1 below. The funding for progression of the solution to gate three will depend on the outcome of the conditional review.
Is there evidence all expenditure is efficient and should be allowed?	Yes, refer to section 4.3
Delivery incentive penalty?	No
Is there any change to partner arrangements?	No
Are there priority actions for urgent completion?	Yes, refer to section 5.1
Are priority actions and actions from previous gates addressed?	No, refer to appendix B.
Suitable timing for gate three has been proposed	We have decided that there should be a conditional review point of 29 January 2024. If we are satisfied that the solution should continue to be developed, we believe that January 2025 would represent the suitable timing for the gate three submission.

4.1 Solution progression to standard gate three

The evidence suggests that the solution is a potentially valuable way of supplying water to customers. However, based on our assessment of a wide range of areas that could concern the progression of the solution, we have concluded that we should not confirm in this decision that the solution can progress through the gated process to gate three, as the solution owners have not demonstrated the need for the solution. However, we recognise that Cheddar 2 source and transfer is considered as an alternative, in region option to increase resilience in the West Country. This may result in the solution being selected in the final WRMPs and final regional plan. On that basis we will allow the solution owners to continue to develop the solution up to a conditional review point of 29 January 2024 (“Conditional Review Point”), after which partner regulators will make a final recommendation on progression beyond the Conditional Review Point to Ofwat. 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 3 below.

Decisions on funding as a result of this progression decision, are set out in section 4.2.

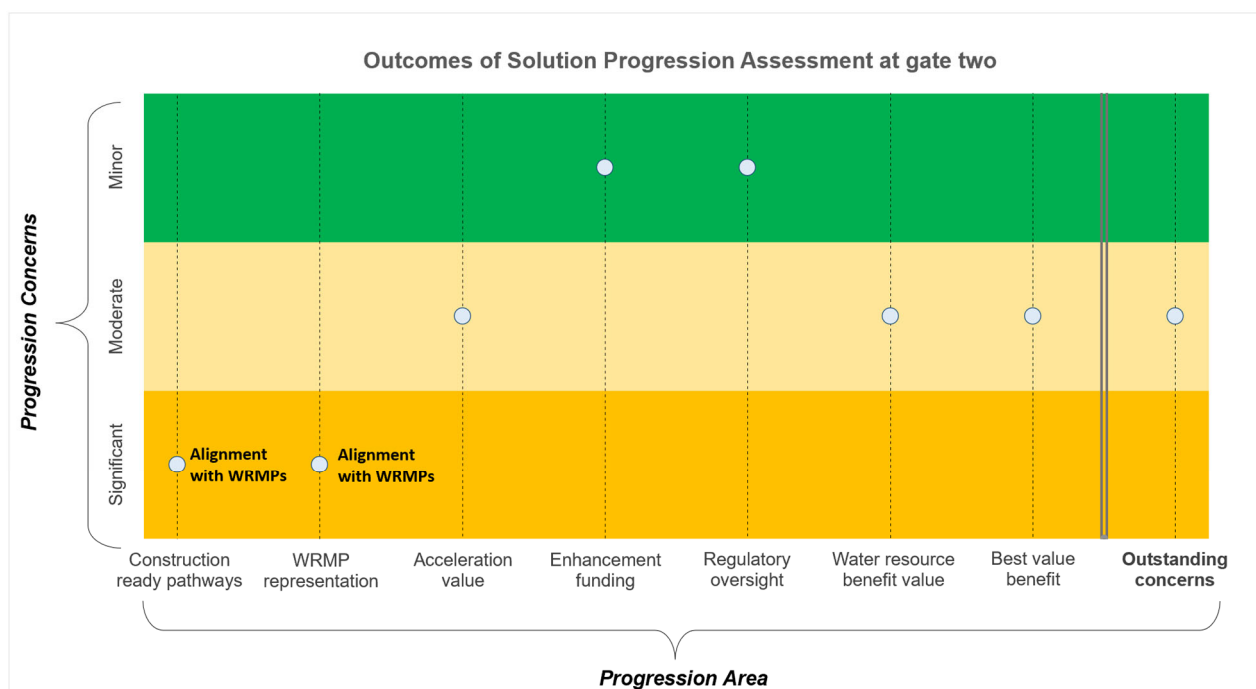


Figure 2. Assessment of solution's progression concerns

Table 3. Final decision progression criteria

Progression criteria	Cheddar 2 source and transfer
Solution owners	Wessex Water and Bristol Water
Is the solution in a preferred or alternative pathway in relevant regional plan or WRMP (where applicable) to be construction ready by 2030?	No, the solution has not been selected in a preferred or alternative pathway in any relevant draft WRMP. This progression concern is addressed by section 4.1 and the Conditional Review Point.
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 selection, to a level that they have (or intend to) represent on it when consulted?	Yes. The non-inclusion of the solution in a draft WRMP, and therefore the assessment of the solution as a stand-alone scheme, does not allow for assessment of actual deployable output and utilisation rate in the water companies network or regional network, nor its interaction with other solutions. This progression concern is addressed by section 4.1 and the Conditional Review Point.
Is there value in accelerating the solution's development to meet a company's or region's forecast supply deficit?	Yes. South West Water's draft WRMP mentions a decision point in 2028 to clarify the extent of the supply-demand deficit post 2040, and a trigger point in 2033 to implement strategic resource options solving this deficit, potentially including Cheddar 2 source and transfer. Cheddar 2 source and transfer duration to operational use is 12 years, so there is value in continuing more detailed assessment and refinement of the solution in the short term, to allow it to be implementation ready in due course should implementation become necessary. This progression concern is addressed by section 4.1 and the Conditional Review Point.

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 RAPID?	Yes. The solution will continue to benefit from the regulatory support and oversight provided by being included in the RAPID programme.
	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?	No, the unit costs are higher than the average for gate two.
	This progression concern is referenced further in section 4.4.2 of this document.
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 solutions?	No. This solution is not selected in draft WRMP, so it is not possible to make this comparison.
	This progression concern is addressed by section 4.1 and the Conditional Review Point.
Does a regulator or regulators have outstanding concerns that have not been addressed through the strategic planning processes taking into account proposed mitigation?	Yes. The concept design of the solution does not show any issues that would prevent the solution from progressing to gate three. We recognise that the south west would benefit from more resource options. However, there are concerns at the lack of evidence for the need for this solution. The solution is not selected in Bristol Water's, Wessex Water's or South West Water's draft WRMP.
	This progression concern is addressed by section 4.1 and the Conditional Review Point.

4.2 Solution funding to standard gate three

We are changing the funding of this solution. The details of this funding decision are set out in table 4 below, and details on forward programme in section 8.1.

Table 4. Cheddar 2 source and transfer funding allowances

	Gate one	Gate two	Gate three	Gate four	Total
Cheddar 2 source and transfer gated allowance	£0.49m	£0.74m	£5.99m	£1.97m	£9.19m
Comment	10% of development allowance calculated as 6% of total solution costs	15% of development allowance calculated as 6% of total solution costs	Allowance has been revised and capped.	40% of development allowance calculated as 6% of total solution costs	Updated to reflect revised gate three expenditure cap.
Previous Allowance	£0.49m	£0.74m	£1.72m	£1.97m	£4.92m
Change from Previous Allowance	£0.00m	£0.00m	£4.27m	£0.00m	£4.27m

This funding has been revised to account for forecast costs at gate three. We have determined that across all solutions, gate three costs have risen due to factors such as increases in solution design costs, changes in scope and additional funding required to develop the EIA, water quality assessments, ground investigations and other environmental field studies and assessments.

The Cheddar 2 source and transfer solution will be allowed to spend up to £5.99 million to undertake gate three activities, representing an increase of £1.49 million from our draft decision. This figure has been reached based on funding 100% of the forecast costs for gate three. We are not amending the gate four allowances at this point.

We are removing the cost sharing arrangements for gate three which were in our draft decision and are instead capping the allowance at a higher level. This means that the solution may pass on the costs of gate three development but only up to the higher cap. The solution will be allowed to use its previous underspends to offset expenditure above the cap to provide some flexibility against cost uncertainty.

These arrangements will be implemented through the 2019 price review (PR19) reconciliation mechanism. The impact on the solution owners of any expenditure above or below the cap will depend on the extent to which the solution was already funded at PR19.

The solution may bring forward some gate four activities, which can be funded from the gate four allowance. There must be a clear rationale for undertaking the expenditure early, including evidence of the benefits of doing so, instead of waiting for greater solution certainty.

We confirm that any funding for AMP 8 will be decided through the PR24 process.

4.3 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.

Cheddar 2 source and transfer has carried forward £0.06m underspend from gate one, increasing the allowance available to them at gate two to £0.80m.

Our assessment of the efficient costs as spent on standard gate two activities results in an allowance for this solution of £0.75m (of £0.75m claimed). Cheddar 2 source and transfer has therefore underspent its combined gates one and two allowance by £0.05m and may take this underspend forward to gate three, subject to any decisions taken at the Conditional Review Point, increasing the allowance available to them at gate three to £6.04m.

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. If Cheddar 2 source and transfer progresses to gate three, this will apply here.

4.4 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 in 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 [standard gate two guidance](#), (updated version published on 12 April 2022). We also assessed the Board assurance provided.

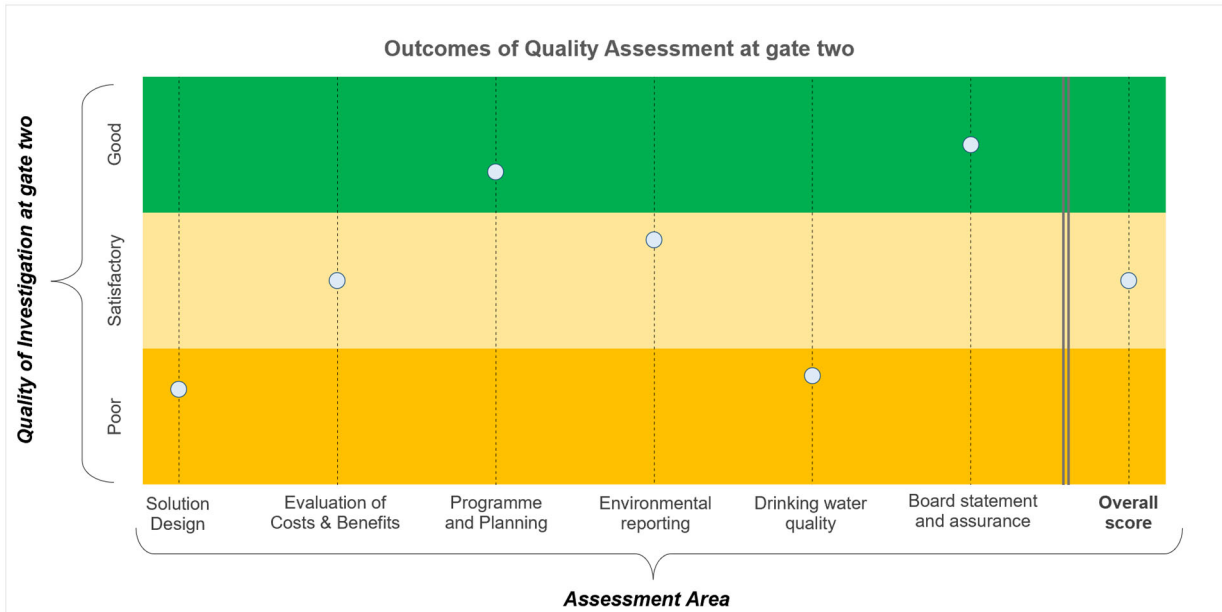


Figure 3. Assessment of quality of investigation

Our overall assessment for the solution submission is that it is a satisfactory submission but falls short of meeting gate two expectations in some areas of the submission.

In addition to the overall assessment score, there is some variance in expectations being met across the submission, with solution design, evaluation of costs and benefits, 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 this assessment of quality, as further detailed in section 6.

4.4.1 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 that Bristol Water and Wessex Water have not provided sufficient evidence of the need for Cheddar 2 source and transfer for gate two. The submission does not confirm that the scheme is part of any preferred or alternative pathway in the water companies’ draft WRMPs. The justification for the scheme being potentially needed in the more severe scenarios by 2050 for the West Country Water Resource group (WCWR) does not explain why the scheme needs to be construction-ready by 2030. In the regional plan and final WRMP, we

would need to see more evidence of need. We also want to see evidence of more solution-specific customer engagement as set out in priority action 1 and action 1 in Appendix A.

4.4.2 Solution costs

Our assessment of the unit costs of delivering the Cheddar 2 source and transfer is that they are relatively expensive at this stage with respect to other comparable solutions. 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, there has been a change in the transfer capacity, treatment works, pipeline and pumping station sizes. 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.

4.4.3 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 Bristol Water and Wessex Water have provided evidence of evaluating the costs and benefits of the solution in the gate two submission, however the assessment of the scheme as a standalone scheme does not allow the calculation of actual deployable output. Solutions that receive the benefit beyond Warminster strategic service reservoir are not detailed. Action 3 to recalculate deployable output with the solution integrated in a water company network, has been set to address this, see Appendix A.

4.4.4 Programme and Planning

Our assessment of the Programme and Planning considered whether Bristol Water and Wessex Water presented a programme with key milestones and whether its delivery is on track. The assessment also considered 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 Bristol Water and Wessex Water regarding the programme and planning, risks and issues and the procurement and planning route strategy for Cheddar 2 source and transfer to be of sufficient detail and quality for gate two. However,

we would want to see more evidence of activities to mitigate programme risks as set out in priority action 2 in Appendix A.

4.4.5 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.

We consider Bristol Water and Wessex 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 two. Although the opportunity to initiate relevant environmental monitoring and survey programmes was not taken the resultant remaining level of uncertainty on environmental risk and adequacy of potential mitigation is acknowledged in the gate two submission. However, it falls short of meeting expectations in some areas. These need to be addressed fully in the programme of environmental monitoring, surveying, modelling and assessment for gate three such that there is a high degree of confidence in the evidence base for the solution to meet the requirements of all relevant formal consenting applications. Actions 5 to 11 and recommendation 4 to 6 have been set to address these deficiencies.

4.4.6 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.

The drinking water quality components falls short of meeting expectations. Emerging contaminants need to be included in monitoring and drinking water safety plans and the two water company water quality teams need to be engaged on the scheme. A priority action has been set to demonstrate by 30 November 2023 that the companies are working with all relevant drinking water quality teams to seek views on the project and to understand its impact on current drinking water safety plans. Action 12 has also been set to address this concern.

4.4.7 Board Statement and assurance

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

We note that the board of Southern Water has assured the work carried out up to 31 March 2022. We consider that the boards of Bristol Water and Wessex Water have provided a comprehensive assurance statement and have clearly explained the evidence, information and external / internal assurance that they have relied on in giving the statement.

5. 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 and for this reason directly relate to the assessment of delivery incentives set out in this publication.

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.

5.1 Actions and recommendations from gate two assessment

Four priority actions have been identified for Cheddar 2 source and transfer, which should be delivered by the date specified in Appendix A, as part of a remediation plan.

Nineteen actions and recommendations have been identified for Cheddar 2 source and transfer, 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 Cheddar 2 source and transfer can be found in Appendix A.

5.2 Actions and recommendations from gate one assessment

We have assessed whether Cheddar 2 source and transfer has met actions that were set out as a result of our gate one assessment.

No priority actions were identified for Cheddar 2 source and transfer.

Sixteen actions and recommendations were identified for Cheddar 2 source and transfer, which were expected to be fully addressed at the gate three submission.

We have decided that not all the actions have not been fully addressed in the gate two submission. Further detail of our conclusion against each individual action is shown in Appendix B.

6. 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.

7. Proposed changes to partner arrangements

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

Since gate one, RAPID has agreed that Southern Water is no longer a solution partner because the scope of the solution has changed from inter-regional transfer to in-region use only⁴.

⁴ [WCWR-Interim-letter-response-27-May-2022.pdf \(ofwat.gov.uk\)](#)

8. Gate three activities and timing

The solution will continue to be funded to the Conditional Review Point referred to in section 4.1 after which partner regulators will make a final recommendation on progression beyond the Conditional Review Point to Ofwat. A decision will then be issued regarding funding beyond the Conditional Review Point to gate three as part of the standard gate track.

If the solution progresses to gate three, for its gate three submission, we expect Bristol Water and Wessex Water to complete the activities listed in [PR19 final determinations: strategic regional water resources solutions appendix](#), as expanded on in section 8.4 of the main report and annex 9 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.

8.1 Gate three timing

Bristol Water and Wessex Water have proposed a date for gate three of March 2025. This is proposed alongside a forward programme of gate four in July 2026, proposed planning application submitted in June 2026, solution construction ready in 2030, and solution operational in 2035.

We have decided that the gate three submission date for Cheddar 2 source and transfer will be January 2025. This is to align gate three solutions on a similar programme. However, we will discuss the possibility of changing that date at the Cheddar Two Source and Transfer SRO Conditional Review Point set for 29 January 2024.

We agree with your forward programme for gate four.

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 4.2 of this document.

Appendix A: Gate two actions and recommendations

Priority Actions – to be addressed by the date specified		
Number	Area	Detail
1	Solution design	Provide to RAPID a detailed customer and stakeholder engagement plan through gate three and beyond by 30 November 2023.
2	Programme and planning	Detail to RAPID all activities you will undertake, including owners and estimated completion dates, to mitigate the programme risks in section 7.4 of the main gate two submission report by 30 November 2023.
3	Drinking water quality	Demonstrate to RAPID by 30 November 2023 that you are working with all relevant drinking water quality teams to seek views on the project and to understand its impact on current drinking water safety plans.
4	Evidence of efficient spend	At the Conditional Review Point, provide a report on the expenditure incurred up to the Conditional Review Point and a revised forecast of expenditure to gate three.
Actions – to be addressed in standard gate three submission		
Number	Area	Detail
1	Solution design	<p>Include outputs from further engagement activities in gate three. These activities should include:</p> <ul style="list-style-type: none"> Engaging the Consumer Council for Water in the WCWR regional plan engagement making sure it is consulted on any plans for customer research. more in-depth stakeholder engagement around source changes and consumer acceptability associated with any change of source of supply. Any gate three submission should set out how the company will manage these changes and the associated risks. Working with Historic England and the Forestry Commission regarding the different components of the solution.
2	Solution design	Recalculate utilisation rate with the scheme integrated in a water company network and used as planned in that company water resources management plan.
3	Evaluation of costs and benefits	Recalculate deployable output with the solution integrated in a water company network.
4	Evaluation of costs and benefits	Confirm in the gate three submission where exactly the resource will be used, which areas this solution will benefit, including any benefits for drought risk areas

5	Environment	Determine the interactions between the River Yeo, River Axe and the drainage system. This should include how pumping can impact flows, movement of water into and out of the drainage system.
6	Environment	Determine how the solution impacts on the Somerset Levels and Moors Ramsar, if at all, and even if it doesn't directly, what potential the solution has to restore the Ramsar, even if this solution is not the complete solution.
7	Environment	Revisit Habitats Regulation Assessment in-combination assessment, particularly with regard to the Severn Estuary SAC/Ramsar, including the wider zone of impact (functionally linked off site), including drought plans of water companies relevant to water bodies feeding into the River Severn and its estuary.
8	Environment	Complete an appropriate assessment for bats to fit scope of the solution.
9	Environment	Agree scoping of gate three environmental monitoring and survey programmes with the Environment Agency and Natural England.
10	Environment	Include in gate three submissions an appropriate level of validation of all environmental modelling.
11	Environment	Take deep core samples in the overlapped areas within the footprint of the reservoir to determine the true peat status. If peat is present, detail what mitigation is required.
12	Drinking water quality	Include emerging contaminants (including per and polyfluoroalkyl substances (PFAS)) in monitoring and drinking water safety plans and risk assessments.
13	Solution Design	Confirm to RAPID that the solution aligns with Wessex Water and Bristol Water's Water Resource Management Plans (WRMP) and relevant Regional Plans at the next available regular checkpoint meeting after the publication of the WRMPs and Regional Plans.
Recommendations		
Number	Area	Detail
1	Solution design	Engaging with South West Water to ensure this scheme can help provide the resource they need in their drought risk areas.

2	Evaluation of costs and benefits	Provide descriptions and tables to show how cost estimates, including total planning period indicative option cost (Net Present Value), for the preferred option have changed between each gate.
3	Programme and planning	Keep under review the scope of the Direct Procurement for Customers (DPC) project, taking into account our revised technical discreteness guidance and including engagement with RAPID on the rationale for excluding specific assets from the scope of DPC.
4	Environment	Scope and agree with environmental regulators an assessment of requirements for flow variability and flushing flows (magnitude, frequency, seasonality), and the implications of the minimum flow being retained for longer.
5	Environment	Pro-actively address deficiencies in stage three of the Habitats Regulation Assessment where no adverse effect on integrity cannot yet be established.
6	Environment	Provide a detailed assessment of the potential for renewable energy sources, and how sequestration and procurement of low carbon materials through the supply chain could improve the whole life carbon cost of the solution.

Appendix B: Gate one actions and recommendations

Actions – addressed in standard gate two submission			
Number	Area	Detail	RAPID assessment outcome
1	Solution design	Provide a 'conceptual design report' developed in consultation with all regulators, to meet gate two requirements and timescales. Include a recommendation for which solution should progress beyond gate two, based on the outcome of the assessments completed by that stage.	Complete
2	Solution design	Continue to develop the two options remaining (Option 1, 16 Ml/d treated, Option 2, 65 Ml/d raw, plus the smaller transfer from Cheddar 2 to Testwood discharge lake) and investigate "cascade" options through the existing companies' networks with network reinforcement where necessary.	Complete
3	Environment	Undertake route corridor optioneering in consultation with the Environment Agency and Natural England, to meet gate two requirements and timescales.	Complete
4	Evaluation of Costs & Benefits	Provide a clear summary of the water resource benefit deployable output (DO) of each option including the conjunctive use benefits. The operational and utilisation assumptions for each benefit should be clear.	Incomplete– refer to action 3
5	Environment	Provide summaries of the further development of Strategic Environmental Assessment, Habitats Regulations Assessment, Water Framework Directive assessment, Natural Capital Assessment, Environmental Social and Economic Valuation and Environmental Net Gain, that have been discussed and agreed with the Environment Agency and Natural England, to meet gate two requirements and timescales.	Complete
6	Programme and Planning	Provide more detail on the solution's delivery timescales, and how the assumptions are consistent across the accelerated programme and other relevant projects, such as Havant Thicket reservoir and the additional raw water solution proposal. Undertake an assessment of the potential to accelerate the project plan to achieve an earlier completion including an assessment of the implications of undertaking specific pre-construction activities earlier and/or in parallel.	Complete

7	Evaluation of Costs & Benefits	Provide cost methodology and benchmarking evidence for solutions including the Cheddar 2 reservoir capex. All option costs should include any treatment upgrades at Testwood so that the costs represent the total for delivering the water resources (DO) benefit.	Partially complete- Solution no longer transferring to the Testwood site as the solution is now in region only.
8	Solution design	Provide a summary of the potential impact that the solution could have on Southern Water, Wessex Water, and Bristol Water's supply-demand balances. This should also include the impact on any current options or programmes within the WRMP19 or AMP7.	Partially complete- submission states average impact on water availability will be assessed and included in the modelling for gate three.
9	Programme and Planning	Undertake a procurement strategy assessment including DPC eligibility assessment and value for money analysis. Include in this assumptions with respect to who would operate the solution under both the DPC and traditional delivery model.	Complete
10	Solution design	Provide more information about stakeholder engagement and the understanding of customer acceptability including: <ul style="list-style-type: none"> • for individual solutions and options; • on issues that could cause delay; and • how the views of vulnerable or harder to reach stakeholders and customers will be sought. 	Incomplete- refer to priority action 1
11	Programme and Planning	Develop a fuller risk assessment that explores the areas of uncertainty associated with this solution. This should include: <ul style="list-style-type: none"> • a clearer relationship between mitigation measures and residual risks; • greater clarity on the scoring criteria applied; and • more direct read-across to the dashboard risks. 	Incomplete- refer to priority action 2
12	Evaluation of Costs & Benefits	Provide total gate expenditure and activity breakdown costs in a common cost base. These costs should be presented in 2017-18 prices.	Complete
Recommendations			
Number	Area	Detail	RAPID assessment outcome
1	Evaluation of Costs & Benefits	To aid comparison with other WRMP options provide the Average Incremental Costs (AIC).	Complete

2	Evaluation of Costs & Benefits	Please clarify what factors are included in the final out-turn cost adjustment included in the indirect capex estimates and whether there is any double counting of allowance for cost uncertainty included under the risk assessment and optimism bias assessment.	Complete
3	Board Statement and assurance	Provide information on future plans for board engagement and a compiled summary/log of assurance findings with actions taken.	Complete
4	Board Statement and assurance	Not all documents were externally assured which raises questions about the timescales and scope external assurers were provided. It is also unclear what further actions have been taken as a result of the material concerns regarding costs that were flagged during the assurance process. Clarification would improve further submissions	Complete

**Ofwat (The Water Services Regulation Authority)
is a non-ministerial government department.
We regulate the water sector in England and Wales.**

Ofwat
Centre City Tower
7 Hill Street
Birmingham B5 4UA
Phone: 0121 644 7500

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