



Gate 2 SRO Submission

Gate 2 Assurance Statement

Final

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Southern Water



Gate 2 SRO Submission

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Assurance Statement

Background

Jacobs has provided independent third-party assurance of two Strategic Resource Options (SROs) for submission to RAPID at Accelerated New Gate 2 on 6th December 2021:

- Havant Thicket (for which Jacobs' appointment was made jointly by Southern Water Services and Portsmouth Water); and
- Water Recycling (for which Jacobs' appointment was solely by Southern Water Services).

This assurance statement is based on our audit of the documents for submission as at 3rd December 2021. We understand your teams are continuing to work on the documents to refine language and formatting up to 6th December 2021.

Scope

For each SRO, we have reviewed the Detailed Feasibility and Concept Design Reports (Level 2 documents) for consistency and alignment to regulatory requirements and the scoring criteria for RAPID and the National Assessment Unit. We have also reviewed supporting technical documents (your Level 3A and 3B documents) for reliability, consistency, quality of data and efficiency of spend.

We have checked the internal consistency of the submission, including where possible that higher levels have been appropriately summarised from lower levels and draw appropriate conclusions.

For the Havant Thicket SRO, we have given particular focus to impacts upon Portsmouth Water stakeholders, the local environment, Portsmouth Water's existing and planned assets and Portsmouth Water's future requirements.

Our assurance for the Accelerated New Gate 2 submission builds on the assurance we had completed in anticipation of the original Accelerated Gate 2 submission. We completed an initial review of all documentation within our scope and then further reviews after you had completed actions arising from our initial findings. We provided detailed feedback at a granular level for all documents. This feedback identified areas requiring action to reduce the risk associated with the submission. We have reviewed your responses to these actions and have updated our assurance findings to reflect the outcome.

General Findings

The overall narrative around future needs, residual deficit, planning for the 1 in 500 year drought event, option capacity and changes since Gate 1 is not easy to follow across the submission documents. You have told us that your decision to build on the Interim Update was taken with a view to minimise potential inefficiency due to rework but we note this has impacted the flow of the narrative. We note your teams have worked hard to address key areas of inconsistency across the level 1 document, the level 2 CDRs and some of the annexes (in particular annex 4 and annex 12).

A minor observation is that the documents we last reviewed contained numerous spelling mistakes and typographical, referencing and labelling errors which we understand your teams are continuing to work on.

Findings on CDRs

Our review of the Accelerated Gate 2 Detailed Feasibility and Concept Design Reports found remaining material risks.

- **Documents are not complete:**
 - Data tables including cost and benefit profiles consistent with WRMP24 reporting requirements are not included in the submission.
 - There is limited detail on the proposed penalty assessment. A mechanism is discussed but no assessment criteria are given. RAPID requirements ask for explicit consideration of solution delay impacts. We note that you have told us your Board has agreed this is your position and you do not propose to add anything further.
 - A table signposting where supporting information can be found in annexes is not included in the CDR but we note this is covered by the Navigation Guide in the Level 1 Submission Summary.
- **Not all aspects of the RAPID template requirements and the Gate 1 determination actions have been addressed:**
 - The action to develop a mitigation plan for options to address the gap between solution delivery in 2030 and the Section 20 date of 2027 is not discussed within the submission documentation. We note you have told us there are active conversations ongoing with the EA on this matter.
 - The narrative around planning for the 1 in 500 year drought event does not make it clear that this recommendation has been fully addressed. We understand this is linked to the ongoing work in this area by WRSE.
 - See items listed above as incomplete.
- **Internal inconsistencies.** The supporting information in the annexes may not be accurately summarised in all cases:
 - Timescales have meant that in some instances we have been unable to confirm that the very latest updates to the Annexes have been accurately brought forward into the CDR document. We recommend that Southern Water and Portsmouth Water satisfy themselves that reported updates have been accurately transferred.
 - For example: You have made changes to Annex 6 Efficiency of Expenditure to address some remaining material issues. Due to time constraints we have been unable to verify these changes to the annex and therefore have also been unable to verify this is correctly reflected in the CDR.

Findings on supporting documents (Level 3A)

In general, our assessment is that the Accelerated Gate 2 Level 3A documents present a low to medium risk that the material is not suitable to pass Gate 2. However, the following material audit finding has not been addressed for either of the SROs.

Schedule:

- The document does not directly address the issue that the earliest operational date is later than the target date of 2027 which the Gate 1 determination requires.

Findings on methodologies (Level 3B)

In general, our assessment is that the Accelerated Gate 2 Level 3B documents present a low to medium risk that the material is not suitable to pass Gate 2. However, the following material audit findings have not been addressed:

Annex 6: Efficiency of Expenditure:

You have made some changes to Annex 6 to address remaining material issues including:

- The split of work allocations by procurement method has been added but the text to explain what benchmarking is undertaken by PMs where direct award is used still appears to be missing. You have told us this is in hand.
- The figures for PMO and PM allocation do not match the text. The figures do not match the figures audited in August 2021.
- Benchmarking of the costs for the 3 options under the headings used by RAPID shows some inconsistencies in cost allocation.

The nature of the recent changes you have made to Annex 6 would warrant a further audit of source numbers but due to time constraints we have not been able to undertake this task and verify the evidence supporting the final annex.

We note your teams have been receptive to our feedback and have worked hard to address material issues identified during our assurance.

Our summary findings at the end of our assurance are attached as appendices:

- Appendix A sets out our approach to scoring risk;
- Appendix B sets out our risk scores for the 2 CDRs including rationale for the scores overall and by chapter;
- Appendix C sets out our risk scores for the 2 level 3a documents including rationale for the scores by chapter; and
- Appendix D sets out our risk scores for the level 3b documents within our scope including rationale for the scores by document.

Appendix A. Risk Level Guidance

A	B	C	D
<p>No issues identified (low-risk that evidence is not suitable to pass Gate)</p> <ul style="list-style-type: none"> Information appears complete, robust and compelling. Complete (no further work required) in relation to required Gate activities Compliant with specific and wider regulations, submission requirements, best practice Evidence appears clear, relevant and good quality Appropriate assumptions Evidence is factored into decisions (line of sight between decisions and the evidence) Document is technically coherent i.e. decisions/the solutions are reasonable in light of the evidence 	<p>Non-material issues identified (low to medium risk that evidence is not suitable to pass Gate)</p> <ul style="list-style-type: none"> Similar to A, but with minor room for improvement in one or more areas. There might be work that is incomplete – but it is clear there is a plan to complete it and/or appropriate decisions have been made in light of incomplete areas. 	<p>Material issues identified (medium to high risk that evidence is not suitable to pass Gate)</p> <ul style="list-style-type: none"> Material areas of deficiency Many areas incomplete and no clear or realistic plans to remedy High risk incomplete areas but with appropriate plans to remedy Inappropriate decisions or non-compliance Evidence not appropriate or limited Evidence does not support the decisions 	<p>Significant material issues identified (high risk that evidence is not suitable to pass Gate)</p> <ul style="list-style-type: none"> Significant gaps, incoherent, no plans to remedy deficiencies etc. Obviously non-compliant No evidence

Appendix B. CDR Risk Scores

This section presents the results of our assurance to the Detailed Feasibility and Concept Design Reports, first by test area and then by chapter.

B.1 Overview of Test Areas

Test area	Water Recycling	Havant Thicket
Is the work complete?	C	C
Is the evidence sufficient?	B	B
Is the work consistent?	C	C
Are risks considered?	B	B
Is the document aligned with the RAPID template and Gate 1 determination?	B	B

B.2 Test Area Score Rationale

Water Recycling - Based on full document viewed on 02/12/2021 and subsequent screenshots of updates

Havant Thicket - Based on full document viewed on 02/12/2021 and subsequent screenshots of updates

Test area	Risk	Rationale for Jacobs' opinion
Is the work complete?	C	<p>Not all remedial actions from the Gate 1 determination have been adequately addressed.</p> <p>Some gaps in the RAPID template requirements remain:</p> <ul style="list-style-type: none"> Table summarising the agreed gate two activities with reference to where further detail can be found is missing but we note this is included in the Navigation Guide in the Submission Summary.

Test area	Risk	Rationale for Jacobs' opinion
		<ul style="list-style-type: none"> Data tables including cost and benefit profiles consistent with WRMP24 reporting requirements are not included in the submission.
Is the evidence sufficient?	B	It appears that the CDRs are supported by the technical detail given within the Annexes as most have scored at least B. Due to time constraints we have been unable to verify the latest data included in Annex 6.
Is the work consistent?	C	There is inconsistency in the narrative between the CDR, the level 1 document, Annex 4 and Annex 12 with regards to how the options are described, the volume of the WRP, and planning for the 1 in 500yr drought. Due to timescales we have been unable to confirm that the very latest updates to the Annexes have been accurately brought forward into the CDR document. We recommend that SW and PW satisfy themselves that reported updates have been accurately transferred.
Are risks considered?	B	Portsmouth Water has confirmed that they are satisfied with the risks represented in the Havant Thicket CDR. Minor inconsistencies in how risk is reported between different sections of the documents.
Is the document aligned with the RAPID template and Gate 1 determination?	B	The template is generally followed although there are some alignment issues – largely missing requirements noted above in 'Is the work complete.'

B.3 Overview of Chapter Risk Scores

Chapter	Water recycling	Havant Thicket
Overall	C	C
1. Executive Summary	B	B
2. Background and Objectives	B	B
3. Concept Design	B	B
4. Programme and planning	B	B
5. Procurement, ownership and operation	B	B
6. Costs to gate two and forecast	C	C
7. Stakeholder engagement	B	B
8. Board statement and assurance	B	B
9. Proposed gate 3 activities and outcomes	C	C
10. Conclusions and recommendations	B	B
11. Supporting documentation	C	C

B.4 Rationale for Chapter Risk Scores

Water Recycling - Based on full document view on 02/12/2021 and subsequent targeted review of changes thereafter

Chapter	Risk	Rationale for Jacobs' opinion
Overall	C	It is not clear that all remedial actions from the Gate 1 determination have been adequately addressed within the Gate 2 document. These items are reflected in this overall score rather than within each section as that would potentially double count the same issue. Not all of the RAPID template requirements are included. This is reflected in the scores for the sections with missing items not here.
1. Executive Summary	B	A summary of the Gate 2 work is provided in the Exec Summary. The key risks and assumptions do not appear to relate to those identified later in the report
2. Background and Objectives	B	This is a concise summary of what the solution is aiming to address. The wording on objectives of the report is subtly different to that required by RAPID.
3. Concept Design	B	The section describes the two options B.2 (61 ML/d) and B.5. (75 ML/d). Neither of these sizes match the 87 ML/d deficit described in section 3.1.1. There is no explanation as to how this larger deficit and the 1 in 500yr drought could be addressed. As a result, the CDR is still not clearly addressing the RAPID requirement. This is reflected in the overall score rather than in this section.

Chapter	Risk	Rationale for Jacobs' opinion
		There is limited carbon detail. However, the requirement for further work is recognised.
4. Programme and planning	B	This section would benefit from some reference to ongoing discussions with the EA to identify potential interim measures to bridge the timing gap between 2027 and 2030. We note you have told us your Board has agreed not to include any detail on this. This gap is reflected in the overall score not in this section score.
5. Procurement, ownership and operation	B	The operating scenarios under drought conditions do not match any of the design figures. It is one of the areas of inconsistency in the overall narrative. This is reflected in the overall score rather than in this section.
6. Costs to gate two and forecast	C	Issues identified in the review of Annex 6 with respect to cost allocation may impact the totals presented in this section. There is no overall Gate 3 forecast overspend (Forecast £22.2m compared to allowance of £27.5m). However, there is an overspend on the Havant Thicket and WR allowance. Some explanation of this should be provided. Due to time constraints we have been unable to verify final changes to Annex 6 and therefore have also been unable to verify this is correctly reflected in the CDR.
7. Stakeholder engagement	B	This section reflects Annex 9 Stakeholder and Customer Methodology and Customer and Stakeholder section of the level 3A
8. Board statement and assurance	B	This section of the CDR reflects the assurance annex.
9. Proposed gate 3 activities and outcomes	C	There is limited detail on the proposed penalty assessment- a mechanism is discussed but no assessment criteria. RAPID requirements ask for explicit consideration of solution delay impacts. We note that you have told us your Board has agreed this is your position on this.
10. Conclusions and recommendations	B	This is a brief statement of the selected option and recommendation to progress to Gate 3. We note that a statement that the solution has potential to meet future needs has been included.
11. Supporting documentation	C	RAPID requirements as detailed below are not included: <ul style="list-style-type: none"> Table summarising the agreed gate two activities with reference to where further detail can be found is missing but we note this is included as the Navigation Guide in the Submission Summary Data tables including cost and benefit profiles consistent with WRMP24 reporting requirements.

Havant Thicket - Based on full document view on 02/12/2021 and subsequent targeted review of changes thereafter

Chapter	Risk	Rationale for Jacobs' opinion
Overall	C	It is not clear that all remedial actions from the Gate 1 determination have been adequately addressed within the Gate 2 document. These items are reflected in this overall score rather than within each section as that would potentially double count the same issue. Not all of the RAPID template requirements are included. This is reflected in the scores for the sections with missing items not here. Portsmouth Water has confirmed it is satisfied with how collaborative working has been represented within the document.
1. Executive Summary	B	A summary of the Gate 2 work is provided in the Exec Summary. We note the key risks are not the highest scoring risks identified in this report.
2. Background and Objectives	B	This is a concise summary of what the solution is aiming to address.
3. Concept Design	B	Evolution in sizing is more clearly explained than earlier versions of the document reviewed – with the resulting sizings being 51 ML/d (1 in 200 year /Section 20) and 83 ML/d (likely 1 in 500 year/future scenario). However, the CDR is still not clearly addressing the RAPID requirement. This is reflected in the overall score rather than in this section. There is limited carbon detail. However, the requirement for further work is recognised.
4. Programme and planning	B	This section would benefit from some reference to ongoing discussions with the EA to identify potential interim measures to bridge the timing gap between 2027 and 2030. We note you have told us your Board has agreed not to include any detail on this. This gap is reflected in the overall score not in this section score.
5. Procurement, ownership and operation	B	We note that operation has been sized for a maximum daily supply consistent with the concept design of 1 in 200yr event of 51ML/d and does not tie in with the revised deficit (87ML/d) or the current scheme max capacity of 75ML/d. It is one of the areas of inconsistency in the overall narrative. This is reflected in the overall score rather than in this section. The section doesn't clearly say the scheme will be designed to be available during emergencies.
6. Costs to gate two and forecast	C	Issues identified in the review of Annex 6 with respect to cost allocation may impact the totals presented in this section. There is no overall Gate 3 forecast overspend (Forecast £22.2m compared to allowance of £27.5m). However, there is an overspend on the Havant Thicket and WR allowance. Some explanation of this should be provided. Due to time constraints we have been unable to verify final changes to Annex 6 and therefore have also been unable to verify this is correctly reflected in the CDR.
7. Stakeholder engagement	B	This section reflects Annex 9 Stakeholder and Customer Methodology and Customer and Stakeholder section of the level 3A.
8. Board statement and assurance	B	This section of the CDR reflects the assurance annex.

Chapter	Risk	Rationale for Jacobs' opinion
9. Proposed gate 3 activities and outcomes	C	<p>There is limited detail on the proposed penalty assessment- a mechanism is discussed but no assessment criteria. RAPID requirements ask for explicit consideration of solution delay impacts.</p> <p>We note that you have told us your Board has agreed this is your position on this.</p>
10. Conclusions and recommendations	B	<p>This is a brief statement of the selected option and recommendation to progress to Gate 3.</p> <p>The potential to address future needs is not mentioned and we consider this warrants some reference in the conclusion.</p>
11. Supporting documentation	C	<p>RAPID requirements as detailed below are not included:</p> <ul style="list-style-type: none"> • Table summarising the agreed gate two activities with reference to where further detail can be found is missing but we note this is included as the Navigation Guide in the Submission Summary. • Data tables including cost and benefit profiles consistent with WRMP24 reporting requirements.

Appendix C. Level 3A Document Risk Scores

C.1 Overview of Test Areas

Annex		Is the work complete?	Is the evidence sufficient?	Is the work consistent?	Are the risks considered?	Is the document aligned with the RAPID template and Gate 1 determination?
Engineering Design	Water Recycling	A	B	A	B	A
	Havant Thicket	A	B	A	B	A
Network Infrastructure	Water Recycling	A	A	A	A	A
	Havant Thicket	A	A	A	A	A
Site Selection	Water Recycling	B	B	A	B	A
	Havant Thicket	B	B	A	B	A
Environmental	Water Recycling	B	B	B	B	B
	Havant Thicket	B	B	B	B	B
Planning & Consenting	Water Recycling	B	B	A	A	A
	Havant Thicket	B	B	A	A	A
Risk Management	Water Recycling	B	B	A	A	B
	Havant Thicket	B	B	A	A	B

Annex		Is the work complete?	Is the evidence sufficient?	Is the work consistent?	Are the risks considered?	Is the document aligned with the RAPID template and Gate 1 determination?
Stakeholder & Customer	Water Recycling	B	B	B	B	B
	Havant Thicket	B	B	B	B	B
Schedule	Water Recycling	C	B	B	B	C
	Havant Thicket	C	B	B	B	C
Cost Modelling	Water Recycling	B	A	B	A	B
	Havant Thicket	B	A	B	A	A
Commercial & Procurement	Water Recycling	A	B	B	A	A
	Havant Thicket	A	B	B	A	A

C.2 Rationale for Risk Scores for all 3A Documents: By exception only

Schedule	Water Recycling	C	B	B	B	C
	Havant Thicket	C	B	B	B	C
		<p>The document does not directly address the issue that the earliest operational date is later than the target date of 2027.</p> <p>There is no description or evidence of the checks and controls.</p>				<p>The document does not meet the requirements of the G1 determination as no information is provided about why the timeline for delivery has slipped beyond 2027 or evidence of the proposed mitigation plan.</p>

Appendix D. Level 3B Annex Risk Scores

D.1 Overview of Test Areas

Annex	Is the work complete?	Is the evidence sufficient?	Is the work consistent?	Are the risks considered?	Is the document aligned with the RAPID template and Gate 1 determination?
Annex 4: Water Resources Modelling	A	B	A	A	B
Annex 5: Option Appraisal	B	B	B	B	B
Annex 6: Efficiency of Expenditure	B	C	C	N/A	B
Annex 7: Assurance Process	A	A	A	B	A
Annex 8: Legal & Regulatory	N/A	N/A	N/A	N/A	N/A
Annex 9: Stakeholder & Customer Engagement Methodology	B	B	B	B	B
Annex 10: Gate 3 Activity Plan	A	A	B	A	A

Annex	Is the work complete?	Is the evidence sufficient?	Is the work consistent?	Are the risks considered?	Is the document aligned with the RAPID template and Gate 1 determination?
Annex 12: Outline Option Evolution Plan	B	B	B	B	B
Annex 13: Detailed Option Evolution Statement	B	B	B	B	B

D.2 Rationale for Risk Scores – by exception only

Annex	Is the work complete?	Is the evidence sufficient?	Is the work consistent?	Are the risks considered?	Is the document aligned with the RAPID template and Gate 1 determination?
Annex 6: Efficiency of Expenditure	B	C	C	N/A	B
	Text for benchmarking undertaken by PMs before award from direct award frameworks was missing from the annex we reviewed. You have provided draft text by email to address this. We have anticipated the inclusion of this in the final Annex and therefore this score reflects this.	The PMO and PM allocations are based on a general split across base SRO technical work costs. Last minute adjustments to the figures have been presented. These figures do not match the figures audited in August 2021. The nature of the recent changes would warrant a further audit of source numbers but there is insufficient time to undertake this task.	We have not seen the final Annex 6. We identified the following issues in the version we last reviewed: <ul style="list-style-type: none"> The figures for PMO and PM allocation do not match the text. Benchmarking of the costs for the 3 options under the headings used by RAPID showed some inconsistencies in cost allocation. 		Gate 1 feedback was very critical of the benchmarking and RAPID used the SRO submissions as the basis of the benchmark. We have considered benchmarking under the consistency score as it is about consistency of cost allocation.

Annex	Is the work complete?	Is the evidence sufficient?	Is the work consistent?	Are the risks considered?	Is the document aligned with the RAPID template and Gate 1 determination?
		Therefore we cannot confirm the evidence is sufficient. The process is manually intensive and improvements for Gate 3 could be implemented.	We understand you are making final changes to the Annex to address these points but we have not seen this.		