

Gate three query process

Strategic solution(s)	SESRO
Query number	SER011
Date sent to company	23/09/2025
Response due by	25/09/2025

Query

This query is in relation to your gate three submission main report document for SESRO.

RAPID gate three guidance Section 8.1 provides that evidence to demonstrate that a solution remains best value for customers and the environment is required.

RAPID typically relies on the best value assessments undertaken as part of the regional plans and company water resource management plans (WRMPs) to ascertain this. The financial cost estimates for SESRO have changed from the estimates that were used for best value assessment in the WRSE regional plan and Thames Water's WRMP24.

We further note that within your submission, you have stated the following: *"Our initial analysis indicates that SESRO continues to be one of the preferred options in WRMP24. However further work is required to validate this, and we aim to complete this work and publish our findings in Autumn 2025."*

Therefore, please provide a clear update on this work. This should include:

- A specific date that this work will be shared with us
- When and how you expect to make this information publicly available
- What analysis the work will be based on and the arrangements in place for assurance of its inputs and outputs

- What data will be shared as part of this work. This should detail the specific metrics, particularly relating to cost and best value metrics
 - What form the work will take, for example, a standalone report, a brief update, an additional technical annex? And approximately what the page count will be
 - Who is leading which elements of the work that will make up this report/update/annex.
-

Solution owner response

Introduction and Background

In the SESRO RAPID Gate 3 report, an updated cost estimate for the construction of SESRO was published. The updated cost estimate was larger than the Gate 2 estimate, and the cost estimate increase from Gate 2 to Gate 3 exceeded the cost sensitivity ranges explored in the Thames Water WRMP24¹. In the TW WRMP24, the conclusions drawn in relation to cost sensitivity testing were:

- If the construction capex cost of SESRO were to escalate by more than c.£700-800m, SESRO may not be selected in a “least cost” plan for the WRSE Region. The Gate 3 construction capex estimate is >c.£3bn larger than the Gate 2 capex estimate, and so breaches this indicative threshold.
- However, any increase in the SESRO cost estimate would need to be considered alongside an up to date view of the cost of the main alternative to SESRO, the Severn Thames Transfer (STT).
- While cost is an important factor to consider in making the decision between SESRO and the STT, it is not the only factor. The greater flexibility and simplicity of SESRO, for example, led us to further prefer SESRO over the STT.

Implicit within these statements is the fact that the supply-demand balance deficits which are faced in the South East must still be resolved, i.e., cost escalation in and of itself should not alter our plans, and instead it is the relative

¹ Thames Water WRMP24, Section 10, Paragraphs 10.290-10.294,
<https://www.thameswater.co.uk/media-library/3rfnatyc/programme-appraisal.pdf>

cost of different competing schemes which should be considered when new information in relation to cost arises.

The WRMP and WRMP Annual Review Process

We are required by Section 37A(5) of the Water Industry Act 1991 to review our WRMP on an annual basis, and to send a statement of the conclusions of that review to the Secretary of State. Section 37A(6) of the Water Industry Act requires that, where a material change of circumstances is identified through the Annual Review, we prepare and publish (and consult on) a revised plan.

Section 3.9 of the Water Resources Planning Guideline elaborates on the nature of changes which may be considered material, highlighting that “the definition of a material change of circumstances is not given as it relates to the final [water resources management] plan”, but giving the example of “a significant change in costs” as a possible example of a material change in circumstances.

Within the context of the Thames Water WRMP24 and the WRSE Regional Water Resources Plan, and reflecting on the WRMP24’s conclusions summarised above, a material change of circumstances would arise if the cost escalation of a preferred option led us to consider an alternative option as the best value solution to ensuring supply-demand balance in the future.

The Thames Water WRMP Annual Review 2025 was submitted to our regulators in June 2025, ahead of the first anniversary of the publication of the WRMP24 (October). In the Annual Review 2025 we indicated that our review of the impacts of the change in the estimated cost of SESRO was ongoing. The review was ongoing at that time because we recognised the importance of confirming whether SESRO remains the best value option for customers, and we did not have all the information required to enable that assessment. In particular, when reviewing the reasons for the escalation of the estimated cost of SESRO, it was clear that many aspects of the SESRO cost escalation would be applicable to the Severn Thames Transfer. As such, a cost re-estimation exercise for the STT was initiated, to allow for a more “like for like” comparison between SESRO and the alternative.

We include this section to highlight that the Water Industry Act 1991 and Water Resources Planning Guideline require a periodic review of new information/circumstances and set out the process for responding to change, and to highlight that we have initiated a review in line with this process.

The Initial Analysis

The Thames Water WRMP24 reflects the WRSE Regional Water Resources Plan and the programme appraisal analysis presented in the Thames Water WRMP24 draws on results from modelling undertaken by the WRSE regional group. SESRO or its alternatives would be used by Thames Water, Southern Water and Affinity Water; therefore, any analysis which is intended to review whether SESRO or the STT is the best value option must be undertaken from a regional perspective.

As identified in query SER011, in the RAPID Gate 3 report for SESRO, we state *“Our initial analysis indicates that SESRO continues to be one of the preferred options in WRMP24. However further work is required to validate this, and we aim to complete this work and publish our findings in Autumn 2025.”*

The statement of provisional confidence that SESRO would continue to present the best value option to customers is based on the conclusions of a draft modelling report which was produced by the WRSE Regional group. The draft report presents the results of model runs undertaken using indicative cost uplifts for different SROs.

The statement that we are aiming to complete this work and publish our findings in Autumn 2025 was made in good faith and was based on the view of information availability and requirements held at that time.

Recent Work

Since the Gate 3 report was published, work has been undertaken in several areas.

Firstly, since the draft WRSE report was produced, we have worked with the WRSE Regional Group to develop and agree a methodology which will be applied in the cost sensitivity analysis. This methodology involves the application of the WRSE Investment Model to determine the impact of changes in options' costs on option selection or timing. The methodology has been shared with the Environment Agency, Ofwat and Defra.

Secondly, cost estimates for SESRO (various sizes) and the STT interconnector (various capacities) have been determined and tabulated in line with the requirements of the WRSE Investment Model. In line with the approach taken in the SESRO Gate 3 cost estimation, alongside a “central estimate” for each scheme, “low” and “high” estimates have been produced. These will be used, according to the methodology, to determine whether there is option selection sensitivity within or outside the anticipated level of cost uncertainty.

Thirdly, we have engaged with United Utilities and Severn Trent Water on the price estimates for STT support options. The Severn Thames Transfer is complex, involving an interconnector and support options which would be used to provide water when flows in the River Severn are too low to allow transfer otherwise. The support options require the development of additional infrastructure to enable water to be released for transfer, and form a large portion of the benefit and cost of the STT overall. United Utilities and Severn Trent Water have confirmed that the prices previously provided at Gate 2 will need to be updated, but that assured figures are not currently available to support an update at present. The WRSE methodology was developed with this in mind and proposes scenarios where updated STT support prices are not available. However, should the results of the WRSE analysis indicate that the STT may be preferred, this would need to be confirmed when updated STT support prices are received (STT partner companies have provisionally stated March 2026 as an indicative delivery date for this information).

Next Steps

The next steps are:

- Finalise data to be provided to the WRSE Regional Group which will enable the implementation of the WRSE cost sensitivity methodology
- Implement the WRSE cost sensitivity methodology
- Interpret the results of the WRSE cost sensitivity modelling, and respond accordingly

Summary answers to queries

A specific date that this work will be shared with us

We are unable to confirm a specific date by which a report will be shared. The analysis stage has not yet been commenced, as data availability has been delayed beyond what was initially envisaged. Our aim of carrying out the current tranche of work in Autumn 2025 remains unchanged, and we will share with regulators when this is done. We note that there is a risk that the work may need to be revisited before the work is complete, if it is identified that STT support costs are a material consideration.

When and how you expect to make this information publicly available

We expect to release the WRSE cost sensitivity report when it is finalised. We expect that this will either be published on our website, or appended to a WRMP Annual Review document.

What analysis the work will be based on and the arrangements in place for assurance of its inputs and outputs

The Thames Water SRO team has undertaken assurance of the cost template inputs. The Teddington DRA² and SESRO 150 Mm³³ RAPID Gate 3 estimates have been subject to 3rd-line assurance. The STT Interconnector and Beckton Water Recycling solutions are working towards RAPID Gate 3 and have been subject to 2nd-line assurance at this stage.

The analysis will be conducted in line with the WRSE cost sensitivity methodology, using the WRSE investment model which has been the subject of independent assurance.

WRSE will take the outputs from the cost sensitivity analysis to the WRSE Oversight Group (OSG) for review and endorsement. This will include a recommendation for whether there is a requirement to change the Regional Plan. Once confirmed by OSG, the recommendation will be passed to water companies to inform their assessments of materiality.

We will follow our established WRMP governance process for the assurance and governance of this assessment. This will include taking the assessment and recommendation to our Executive for sign off.

What data will be shared as part of this work. This should detail the specific metrics, particularly relating to cost and best value metrics

We expect that the data to be shared will be similar to that included in the Thames Water WRMP24 Section 10. If specific information/metrics is/are required we would be happy to discuss this.

What form the work will take, for example, a standalone report, a brief update, an additional technical annex? And approximately what the page count will be

We expect that WRSE will produce a standalone report which will document the work undertaken using the WRSE investment model. Thames Water will consider

² Teddington DRA Gate 3 report <https://www.thameswater.co.uk/media-library/qaahckfv/gate-3-submission-for-london-water-recycling-sro.pdf>

³ SESRO Gate 3 report <https://www.thameswater.co.uk/media-library/meii3tda/gate-3-submission-for-south-east-strategic-reservoir-options.pdf>

this report and will interpret the results as necessary in Annual Review documentation.

Who is leading which elements of the work that will make up this report/update/annex.

The Thames Water SRO team has led the cost estimate updates for the various SROs being considered, and has populated the data templates required.

The WRSE Regional Planning team will lead the modelling exercise.

The WRSE Regional Planning team will work alongside Thames Water, Affinity Water and Southern Water to interpret and document the results.

United Utilities and Severn Trent Water are leading work required to provide updated STT support prices.

Date of response to RAPID	29/09/25
Strategic solution contact / responsible person	