

Gate one query process

Strategic solution(s)	LTWLR
Query number	LTW004
Date sent to company	25/02/2026
Response due by	27/02/2026

Query

This query is a follow up to LTW001 and LTW002.

In your response to LTW001 Q1, the capital expenditure associated with your indicative proposed solution was broken down. However, we have been unable to align this with the proposed design set out. Specifically, please can you provide more detail on the following elements:

Please breakdown how many shafts have been costed in and how they feed into your proposed indicative design?

Please breakdown how many tunnels have been costed and how they feed into your proposed indicative design?

Please explain how pipeline rehabilitation feeds into your indicative proposed solution, given this was only mentioned as an option for your alternative solutions?

In your response to LTW001 Q2, you note that the optimism bias accounted for equates to 66%, in line with the Green Book guidance for non-standard infrastructure. In addition to this, you have provided monetary values to support. However, we have been unable to reconcile these back to the capex figures presented in your submission. Please provide a breakdown of how you have calculated these.

In your response to LTW001 Q4, you have provided us the associated fixed and variable opex figures as requested. To support these figures please can you:

Detail the drivers behind the variable opex rate for the indicative proposed solution?

Detail the drivers and explain the large difference in variable opex between the indicative solution and the alternative solutions?

In your response to LTW002 Q1, we requested an explanation as to why your Efficiency of Expenditure template noted the allowance for LTWLR was £0 million. During our correspondence in June and December 2025, it was agreed by Ofwat that the new gate one allowance for LTWLR is equal to £1.21 million. This was broken down in the following way:

Reprofiling of £0.14 million from gate two to gate one (June 25).
Reprofiling of £0.07 million from gate two to gate one (Dec 25).
Additional £1 million allowance (Dec 25).

This was to account for the gate one submission moving to a later date and therefore ring-fenced as SRO allowance.

Please can you reflect this in an updated efficiency of expenditure template.

In your response to LTW002 Q4, you have provided a high-level breakdown of the drivers in your forecasted gate two expenditure in comparison to your PR24 allowance. Please provide further detail on the following points:

Please provide an estimated timeframe for when you expect to have more certainty of your gate two costs following the work your Technical Partner will be undertaking

Please set out how much contingency allowance you have accounted for in your forecast for gate two

Solution owner response

Query: In your response to LTW001 Q1, the capital expenditure associated with your indicative proposed solution was broken down. However, we have been unable to align this with the proposed design set out. Specifically, please can you provide more detail on the following elements:

Please breakdown how many shafts have been costed in and how they feed into your proposed indicative design?

Please breakdown how many tunnels have been costed and how they feed into your proposed indicative design?

Please explain how pipeline rehabilitation feeds into your indicative proposed solution, given this was only mentioned as an option for your alternative solutions?

TW response

The indicative proposed solution costed at gate one includes allowances for 7 shafts: 2 No. shafts to serve as the launch and reception pits for the tunnel boring machine, and 5 No. intermediate shafts. Shaft locations are assumed to be approximately evenly spaced along the tunnel route, with adjustments for suitable surface locations. The final locations for the shafts would be refined and confirmed as the design is developed in later stages. The indicative tunnel profile and associated shaft locations are shown on the figure below, which is used as the basis for determining the depth of the shafts at each location. The reception pit at Queen Mary reservoir is shown as chainage 0m.

[Schematic and caption redacted]

A single tunnel has been costed into the indicative proposed solution at gate one. This is approximately 12.3km long, with a diameter of 3.5m, extending from the intake near Surbiton to the Queen Mary reservoir.

There is a small element of pipeline rehabilitation also included into the indicative proposed solution at gate one. This is associated with the connection between an existing Thames Water reservoir and the new tunnel, where some refurbishment of existing pipeline assets and valves is likely to be required to enable integration at an existing shaft location. The detailed scope of this rehabilitation will be defined and confirmed as the design progresses through later stages.

Query: In your response to LTW001 Q2, you note that the optimism bias accounted for equates to 66%, in line with the Green Book guidance for non-standard infrastructure. In addition to this, you have provided monetary values to support. However, we have been unable to reconcile these back to the capex figures presented in your submission. Please provide a breakdown of how you have calculated these.

TW response

Following on from our response to query LTW001, the table below summarises the OB values for the lower and upper values for the capex ranges presented in the gate one report for the indicative proposed and alternative solutions.

Option	Lower	Upper
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Gate one query

Indicative proposed solution	219	390
Alternative solution 1	318	616
Alternative solution 2	370	712
Alternative solution 3	243	449
Alternative solution 4	294	545

If further information is required, we propose this is addressed in full through a meeting with RAPID rather than set out in this response, following the approach we have taken on other projects within our portfolio.

Query: In your response to LTW001 Q4, you have provided us the associated fixed and variable opex figures as requested. To support these figures please can you:

- Detail the drivers behind the variable opex rate for the indicative proposed solution?
- Detail the drivers and explain the large difference in variable opex between the indicative solution and the alternative solutions?

TW response

For the indicative proposed solution for gate one, the variable operating cost drivers are:

- power required to operate the intake screens at the new river intake near Surbiton; and
- power required for pumping water through the tunnel from Surbiton and into the Queen Mary reservoir.

Both the indicative proposed and the alternative solutions are designed to deliver the same benefits and include: a new river intake, a transfer to the Queen Mary reservoir, and an intermediate connection into an existing Thames Water reservoir to enable resources to be moved between the two existing reservoirs, as well as from the new river intake.

The key reason for the difference in variable opex between the indicative solution and the alternative solutions is that the alternative solutions require the water to be pumped twice.

Under the indicative proposed solution, the water is transferred from the new river intake to the Queen Mary reservoir through a single tunnel that operates under gravity. Pumping is only required to lift the water from the tunnel into Queen Mary reservoir.

In contrast, for the alternative solutions, which use a traditional pipeline solution, to replicate the functionality of the indicative proposed solution and enable the cross connection to the existing reservoirs, the water would have to be pumped twice: once from the river intake to an existing shaft and then onwards pumping to Queen Mary reservoir. This effectively doubles the pumping requirement compared to the indicative proposed solution (which is gravity fed to Queen Mary), and therefore significantly increases variable operating costs.

Query: In your response to LTW002 Q1, we requested an explanation as to why your Efficiency of Expenditure template noted the allowance for LTWLR was £0 million. During our correspondence in June and December 2025, it was agreed by Ofwat that the new gate one allowance for LTWLR is equal to £1.21 million. This was broken down in the following way:

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This was to account for the gate one submission moving to a later date and therefore ring-fenced as SRO allowance.

Please can you reflect this in an updated efficiency of expenditure template.

TW response

Row 52 within the Efficiency of Expenditure template has been updated to reflect LTWLR's Gate 1 allowance being set at £1.21m. An updated version of this template has been provided alongside this query response.

Following on from our response to LTW002, while the £1.21m allowance was set by Ofwat in December 2025, we reiterate that the majority of the expenditure at Gate 1 has been funded through non-SRO allowances noting the LTWLR scheme commenced development in AMP7. Further explanation of LTWLR's gate one expenditure is provided below.

- To deliver the gate one requirements, Thames Water has funded a total spend of £1.08m. This was undertaken to ensure that sufficient progress could be made on this critical scheme before the start of AMP8. This spend spans both AMP7 and year 1 of AMP8.
- Overall, the spend associated with SRO gate one funded elements is only £0.13m (which covers National Appraisal Unit and Natural England advisory costs). The spend associated with SRO early gate two funded elements is only £0.449m.
- Therefore, this represents an underspend against the gate one allowance (£1.21m) of £1.08m. This underspend is assumed to rollover into our gate two allowance, to contribute to the funding of delivery of the complex

programme of technical work that's required in the next stage of the project.

Query: In your response to LTW002 Q4, you have provided a high-level breakdown of the drivers in your forecasted gate two expenditure in comparison to your PR24 allowance. Please provide further detail on the following points:

- Please provide an estimated timeframe for when you expect to have more certainty of your gate two costs following the work your Technical Partner will be undertaking
- Please set out how much contingency allowance you have accounted for in your forecast for gate two

TW response

It is targetted that the Technical Partner will commence onboarding during late Spring 2026 and will have produced their Gate 2 cost forecast by Q4 2026.

The contincy allowance within LTWLR's Gate 2 forecast has been derived from adding 20% to the following WBS catagories:

- Engineering, design and site investigations
- Environmental/Water Quality Investigations
- Stakeholder Engagement and Planning
- Data Collection, Sampling and Pilot Trials
- Commerical and Procurement Strategy and Development

The contingency allowance is reported in the "other" category, alongside legal costs.

Date of response to RAPID	[REDACTED]
Strategic solution contact / responsible person	[REDACTED] [REDACTED]