

Gate two query process

Strategic solution(s)	Severn to Thames Transfer
Query number	STT007
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Query

In section 6.1 of the STT Cost Report, could you please explain why capital maintenance assumptions are 0.71% of M&E CAPEX and 0.27% of Civil CAPEX?

Have any activities been planned post Gate 2 to inform future risk assessment?

Solution owner response

Part 1 Operational maintenance

Vyrnwy Bypass

We have included operational maintenance costs for the Vyrnwy Bypass options on the following basis;

- M&E maintenance – Based on 0.71% of the M&E capital costs
- Civil maintenance – Based on 0.27% of the civil capital costs

These percentages are based upon analysis from UU engineering. The approach forms part of UUs costing methodology and has been used as the basis to estimate Maintenance Opex since PR09 across all WRMP projects.

Interconnector

We have included operational maintenance costs for the Interconnector options on the following basis;

- M&E maintenance – Based on 1.5% of the M&E capital costs

- Civil maintenance – Based on 0.25% of the civil capital costs

These allowances for operational maintenance are consistent with Thames Water's Engineering Estimating System (EES) and Asset Planning System (APS) methodology and consistent for all WRMP24 costings (non-SRO and SRO).

The use of high-level percentages for operational maintenance aligns with the RAPID and OFWAT guidance document titled "Approaches for estimating and benchmarking costs for large scale water infrastructure projects" published Aug 22.

Part 2 Risk Reduction post Gate 2


The Gate 3 planned scope includes activities to address both specific identified risks and more generally to address risk through the development of the scheme.

There are a range of Gate 3 activities planned across disciplines to address identified risks including those presented in table 7-5 of the Gate 2 report (risk 'RSK' references included below) and costed risk registers. Examples of this include:

- formal non-statutory stakeholder consultation over the Summer 2023 on site selection methodology, route corridors and alternatives (RSK001)
- ongoing development of permitting strategy working with regulators, including potentially establishing a 25Ml/d 'put and take' (RSK002)
- further development of the commercial operating model (RSK003)
- updated data for WRSE in early 2023 and incorporation of the Mid Gate-3 Checkpoint to align the STT system with the final approved water resource plans (RSK006)
- a range of Gate 3 environmental investigations to address HRA, Vyrnwy release, water quality and other environmental issues identified and raised with regulators (RSK009,12,17)
- development of the bypass, interconnector and STT system designs which will inform a planned update to costed risk and OB assessment prior to the Mid Gate 3 Checkpoint.
- assessments, design development and specific 'back-checking' for options selection in response to stakeholder representations made in Gate 2

Some planned activities that address areas of risk are dependent on the outcome of the Mid Gate 3 Checkpoint and the progression of the scheme. For example, in the first year of Gate 3 further desk-based geotechnical assessment will be undertaken to better understand and characterise the geotechnical risks. However, intrusive site investigation is only planned once the scheme is confirmed to proceed following the Checkpoint. Similarly, whilst high level route corridor consultation is planned in 2023, consultation on preferred sites and a preferred route alignment is not proposed until after the Mid Gate 3 Checkpoint.

We will continue to actively manage existing and emerging risks as the scheme development proceeds. Quantification and formal reporting of risks will be completed as part of cost baselines and forecast updates produced at appropriate stages during the scheme's development.

Date of response to RAPID	16 December 2022
Strategic solution contact / responsible person	 askSTT@jacobs.com