

Gate 1 queries process

Strategic solution(s)	London Reuse
Query number	LOR001
Date sent to company	20/07/2021
Response due by	22/07/2021

Query

- 1) Please clarify how your projected solution cost estimates have changed between those submitted in WRMP19 and the current Gate 1 submission, where possible providing a breakdown and comparison of the cost estimates. Please explain clearly any changes, added/eliminated cost items or activities, or developments that contributed to the difference.

Solution owner response

In all cases the documents submitted to RAPID contain information that is commercially confidential. Please ensure that appropriate steps and safeguards are observed in order to maintain the security and confidentiality of this information. Any requests made to RAPID or any organisation party by third parties through the Freedom of Information Act 2000, the Environmental Information Regulations 2004, or any other applicable legislation requires prior consultation and consent by Thames Water Utilities Limited before information is released as per the requirements under the respective legislations. The content of the query response is draft and relates to material or data which is still in the course of completion in travel to Gate 2, and should not be relied upon at this early stage of development. We continue to develop our thinking and our approach to the issues raised in preparation for Gate 2.

Date of response to RAPID	22/07/2021
Strategic solution contact / responsible person	<div style="background-color: black; width: 100px; height: 15px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 200px; height: 15px;"></div>

Summary of changes of project solution costs between WRMP19 and Gate 1:

WRMP19 solution costs have been provided in various formats, for the purposes of this response we have assumed that you have referred to the published Water Resources Market Information (WRMI) which includes AICs and NPVs for the WRMP19 options on the Constrained List.

Beckton Effluent Reuse was included on the WRMP19 Constrained List and is therefore included in WRMI tables. Teddington DRA, Mogden South Sewer and Mogden Effluent Reuse were not included on WRMP19 Constrained List (see WRMP19 Appendix Q : Scheme Rejection Register for more information) and therefore are not included in WRMI tables. Options on the Constrained List were developed to conceptual design, therefore the Beckton Effluent Reuse option was developed further at WRMP19 than the three options linked to Mogden.

The main difference between the solution cost estimates from WRMP19 and current Gate 1 submission solution costs relate to:

- **System approach** : WRMP19 followed a systems approach and included an element of costs associated with London's raw water system and treated water network; these system elements have not been included in the Gate 1 solution costs.
- **Cost base** : WRMP19 costs are presented in 2017 cost base whereas Gate 1 is presented in 2020 cost base; this equates to c6% increase in costs.

The development of the options between WRMP19 and the current Gate 1 submission have resulted in the refinement of the solution costs through:

- **Change in scope** : only Beckton Effluent Reuse was developed to conceptual design for WRMP19, some changes of scope have arisen as the Mogden options have been further developed. Key changes between WRMP19 and Gate 1 include:
 - **Beckton Effluent Reuse**
 - Tunnel route has been reviewed and shortened.
 - **Teddington DRA**
 - 300 MI/d capacity considered for WRMP19, for Gate 1 a maximum capacity of 150 MI/d has been considered.
 - **Mogden Effluent Reuse**
 - Conveyance routes have been reviewed, overall length reduced and construction technique changed from micro-tunnel to open cut for part of the route.
 - **Mogden South Sewer**

- Conveyance routes have been reviewed, overall length increased and construction technique changed from micro-tunnel to open cut for part of the route.
- **Costed Risk and Optimism Bias** – have been updated following ACWG methodology.

The deployable output (DO) benefit of all London Effluent Reuse options has been reassessed and reduced by c6% at Gate 1 compared with WRMP19. This does not change the solution cost but will increase the AIC.

The information above provides an overview of the key changes between WRMP19 and Gate 1. If you can confirm where you are referencing WRMP19 solution costs we can provide more detail on the breakdown of solution estimate and the changes that have contributed to the difference between WRMP19 and Gate 1.