
Gate 1 queries process

Strategic solution(s)	Severn Trent Sources
Query number	STS007
Date sent to company	02/08/2021
Response due by	04/08/2021

Query

- 1) Have any scenarios or ranges of utilisation for STS been considered beyond the 10% sweetening flow?
 - 2) Please could you present the environmental, societal, and economic costs and benefits applied to the Mythe and Netheridge STS options? Has this allowed any current best value discussions to be drawn between the two STS options at this stage?
 - 3) Please could you indicate any whether any societal and amenity values have been identified for the scheme, and how these may have been included into a cost benefit assessment?
 - 4) Have any wider resilience benefits been identified for the STS options at this stage, beyond the resilience of the scheme itself?
 - 5) Please could you expand on the stakeholders engaged during Gate 1, and specifically the topics explored
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Solution owner response

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Query 1

Have any scenarios or ranges of utilisation for STS been considered beyond the 10% sweetening flow?

Query Response

At this stage, we have only considered full utilisation and the 10% sweetening flow mirroring the scenarios considered by the STT SRO.

As detailed in paragraphs 6.19 to 6.24 of our gate-1 submission, as part of Gate 2 we will review the utilisation and mode of operation in response to Thames Water's request following confirmation of need for STT SRO by WRSE.

We will also review the scheme in light of our own WRMP24 and WRW outputs to consider potential wider water resource benefits given the relatively low level of utilisation forecast for STT.

Query 2

Please could you present the environmental, societal, and economic costs and benefits applied to the Mythe and Netheridge STS options? Has this allowed any current best value discussions to be drawn between the two STS options at this stage?

Query Response

As detailed in paragraphs 2.15 and 10.1 of the STT gate-1 submission, the optimisation of the raw water source SROs to support STT SRO was completed by

the STT project team We have not sought to determine the best value option between the two solutions as we believe that both will be required to maximise the STT water resource benefit

Our solution cost estimates used to derive the NPVs and AICs detailed in chapter 10 of our gate-1 submission are based on the ACWG Cost Consistency Methodology and include CAPEX, OPEX, costed risk and Optimism Bias As a result, they do not include for environmental, societal and economic costs and benefits at this stage Consequently, any best value comparison between the two options would be confined purely to the direct scheme costs

Biodiversity Net Gain (BNG) and Natural Capital Assessment (NCA) studies were performed for gate-1 in order to give an indication of the potential benefits and losses that the scheme could cause For gate-1 it has been possible to undertake only a limited cost assessment of the effects of the scheme due to data availability Work is ongoing to capture detailed data and this, together with the further development of the scheme, will enable more detailed cost benefit analysis for gate-2 to be undertaken as part of the WRSE regional investment modelling

Nevertheless, data from the BNG and NCA studies it has been possible to produce monetised benefits and impacts arising from the STT scheme on various ecosystem service aspects including carbon sequestration, climate regulation services, natural hazard (flood) regulation services, tourism and recreation, and air quality regulation and overall natural capital These costings are presented in the supporting environmental data provided to RAPID under query STS001

Query 3

Please could you indicate any whether any societal and amenity values have been identified for the scheme, and how these may have been included into a cost benefit assessment?

Query Response

As detailed in our response to Query 2 above, only direct scheme costs have been included in the NPVs and AICs detailed in chapter 10 They do not include environmental, societal and economic costs and benefits at this stage Further cost benefit analysis will be undertaken as part of the WRSE regional investment modelling

We completed Biodiversity Net Gain and Natural Capital assessments at gate-1 as required by the ACWG Environmental and Raw Water Methodology These assessments are detailed in the documentation submitted in response to STS001 These will be built upon as our scheme understanding develops though gate-2

A limited appraisal of tourism and recreation has been undertaken for gate-1 as part of the NCA. In addition to this, an initial appraisal of societal and amenity benefits has been undertaken by working with the WRSE group for their assessment. Further work will be undertaken for gate-2 on potential societal and amenity benefits for the NCA, for the interconnector option appraisal, and for WRSE requirements. The STT SRO is also commissioning a 'benefits study' at gate-2 to look at wider opportunities.

Query 4

Have any wider resilience benefits been identified for the STS options at this stage, beyond the resilience of the scheme itself?

Query Response

As detailed in paragraph 2.13 of our gate-1 submission, we consider the wider resilience benefits will be realised through the STT SRO. The STS offer resilience to STT by ensuring the sustainable flows can be transferred during low flows in the River Severn as part of the proposed Put & Take arrangement agreed in principle with the EA. We have not identified any wider resilience benefits beyond that stated above at this stage, but will continue to consider the potential wider benefits as part of our gate-2 studies.

It should also be noted that STS does have potential to provide additional water resource benefits to our own WRMP24 / WRW when not being used for transfer to the South East. We will undertake water resource modelling to understand how the utilisation of the options could be increased to provide a potential dual benefit beyond the ~15% utilisation forecast by WRSE.

Query 5

Please could you expand on the stakeholders engaged during Gate 1, and specifically the topics explored?

Query Response

As set out in Section 8 of our gate-1 submission SRO, we worked to a set of principles for stakeholder management.

We agreed a tiered approach to engagement, and the primary focus up to Gate 1 has been on Tier 1 stakeholders, understanding key areas of concern, progressing technical investigations to help inform views and concentrating on issues which could prevent or substantially change the development of the scheme. These Tier 1 stakeholders for STS are set out in the table below and are those entities that could

provide the option with potential showstoppers such as the EA. Table 1 shows specific scope and activities for key tier 1 stakeholders in Gate 1.

Tier 2 stakeholders, such local authorities, local interest groups and the wider community are now being engaged as part of the Gate 2 work.

Table 1: Tier 1 Stakeholders and engagement specific to STS

Stakeholder	Scope of interest	Activity to date
EA	Regulation of rivers. Water quality, environmental and hydrological monitoring and assessment including the requirements of and compliance with the WFD. Delivery of wider environmental ambition and objectives – net gain	Regular updates with NAU Number of meetings held focusing on specific studies (WQ and Ecology) Several meetings also held with local EA office who have particular concern re integration between canal and river
Natural England	Legal and regulatory requirements with respect to the natural environment plus landscape and environmental benefits and opportunities for enhancement	██████████ identified as lead in February 2021.
DWI	DWI particularly interested in WQ monitoring programme for this scheme. General concerns regarding recycled sources and emerging contaminants.	Quarterly updates in place - sharing plans for water quality monitoring, agreeing determinands and understanding water safety plans.
Historic England	To ensure the historic environment is protected but to reconcile that with the economic and social needs and aspirations of the people who live and use the area.	General update held with ██████████ Follow up session with local inspectors to identify any key assets at this stage.
RAPID	Regulatory alliance with responsibility for overseeing the work to examine the SROs and for administering the Gated process	To date there has been active engagement with ██████████ to update on approach to customer and stakeholder engagement.
CCG/ CCW	Focus is on protecting customer interests ensuring plans and schemes are developed with customer engagement and input.	Regional CCG group (includes ██████████ ██████████ CW) meeting regularly

Stakeholder	Scope of interest	Activity to date
Local Authorities	Local authorities will be key during planning process regarding location and disruption of any works involving abstraction, transportation and treatment for the scheme.	Identification of possible key LAs based on early options scope for transfer

As there are very few local Tier 1 stakeholders for STS, the focus has been on engagement with the EA around where the water from Netheridge would go into the Severn. There have also been some initial discussions with Bristol water to understand any impacts on their operations.

Date of response to RAPID	04/08/2021
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