

## Gate 1 queries process

<b>Strategic solution(s)</b>	Severn Thames Transfer
<b>Query number</b>	STT006
<b>Date sent to company</b>	05/08/2021
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### Query

Please could you provide the STTs Environmental Monitoring Programme

### Solution owner response

The STT environmental monitoring requirements through Gate 1 and Gate 2, including water quality sampling and testing, are significant. Monitoring is required on the Rivers Vyrnwy, Severn and Avon, water courses associated with the Cotswold Canals option and sections of the River Thames upstream of Culham .To avoid duplication of effort and ensure efficient delivery, monitoring of the River Thames from Culham and downstream has generally been covered by SESRO and other SROs that abstract from, or discharge to, the River Thames, with the information collected then shared with STT.

The attached programme provides a high-level summary of the environmental monitoring for Gate 1 and Gate 2. The programme was developed through engagement with the National Assessment Unit (NAU), comprising the Environment Agency (EA), National Resources Wales (NRW) and Natural England (NE), and with the Drinking Water Inspectorate (DWI). The programme includes the environmental investigations associated with 2020 losses trials, but not the trials themselves which were a separate workstream.

To assess the potential environmental impact of the STT scheme it was important to first understand the baseline conditions of the catchments affected using historic

information, before then collecting additional data to robustly appraise any positive or negative effects.

Therefore at the start of Gate 1, a comprehensive review of historic and current monitoring sites, available data, and previous investigation and reports was undertaken to understand the availability of information that could be used for the Gate 1 studies. A gap analysis was performed to identify where additional bespoke monitoring sites were needed to capture the information needed.

Liaison and co-working with the environmental regulators has been a strong feature of the STT approach from the start, with dialogue held continually with the NAU during Gate 1, and consultation at appropriate stages with DWI. The input of the regulators was requested and acted upon with regard to the proposed monitoring topics, methodologies, and sites. Feedback from the regulators was incorporated into the monitoring approach and programme.

As a result of the gap analysis and liaison with regulators, data collection and monitoring was undertaken at some 90 sites in Gate 1. The range of topics covered is extensive, and includes hydrology, hydromorphology, water quality, fish, invertebrates, plants, diatoms, invasive and non-native species, protected habitats and species. Additional information was also collected to support the biodiversity and natural capital assessment, Habitats Regulation Assessment, Strategic Environmental Assessment and Water Framework Directive assessment.

The programme of environmental investigations associated with 2020 losses trials included close working with NRW in respect of releases into the River Vyrnwy. This work, with the engagement and support of NRW, was fundamental to ensuring the successful trial releases and also informing constraints and operational considerations of future STT direct releases to the River Vyrnwy.

The NAU were kept informed of progress through regular meetings and their feedback on the Gate 1 environmental assessment reports has been incorporated into the Gate 2 monitoring programme, particularly the inclusion of notable species, habitats and environmental variables that need to be assessed for a robust analysis of the potential effects of the scheme.

<b>Date of response to RAPID</b>	9 August 2021
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