



Water Resources Technical Stakeholder Meeting, May 2019 - Briefing Paper

Supported Severn Thames Transfer Physical Testing Approach

Thames Water, working with the Water Resources South East (WRSE) group, is exploring options for transferring water from the River Severn to the River Thames as a strategic option to secure water supplies for the South East of England. One variant of this scheme is for the transfer to be supported by releases from Lake Vyrnwy; a supported Severn Thames Transfer (sSTT). Critical features dictating the net yield from the scheme are the complex physical processes, potential environmental impacts, and operational challenges associated with a heavily regulated river. These factors mean that there is significant uncertainty associated with estimating the net yield of such a scheme. To improve understanding of these physical processes, physical testing of the release is proposed. At the same time, further work is proposed to understand the environmental and operational challenges.

Ofwat has provided funding through its January 2019 IAP for water companies to work together to evaluate various options and has proposed a programme for all strategic options in preparation for the next round of Water Resources Management plans (WRMP24). This programme expects to give clarity on which strategic options will be built to maintain long-term security of supply by 2022/2023. Additionally a Water Resources South East (WRSE) regional plan to inform WRMP24 company plans is due by April 2022, meaning that there are three summer periods within which physical testing can be implemented.

To improve the assessment of net yield within this brief window of opportunity, a two phased approach is being proposed. Phase 1 will run for the remainder of 2019. This phase is primarily about data collection and review using the existing monitoring network and releases from Lake Vyrnwy and Lake Clywedog which are routine as part of the River Severn Regulation, as well as taking advantage of any additional releases that could be possible within the current regulatory governance. The key goal of this phase is to learn as much as possible about the potential challenges of operating a sSTT scheme and identifying how best to implement physical testing of such a scheme. Whilst many data have been collected as part of previous work, the focus during the summer of 2019 will be to:

- Identify any monitoring gaps in flow gauging, rainfall collection, groundwater levels & water quality.
- Agree processes for provision of data, e.g. data from other abstractors and dischargers.
- Collate the data in an agreed format.
- Agree protocols for checking and updating data.

At the same time, we will be working with others who are aiming to:

- Refine the potential licensing arrangements under which the scheme could operate.
- Improve understanding and evidence base for the potential environmental implications of future testing and the final scheme.
- Improve understanding of both the impact of the scheme on ongoing River Severn regulation practices and the how the scheme would work within the current regulation practices.
- Improve understanding of the potentially different demands on the scheme from the water companies in the South East region.

A review stage will be carried out during the autumn and winter of 2019 which will include data collation and analysis. Monitoring locations and parameters, physical testing procedures, and the proposed operational requirements for a sSTT will be developed collaboratively with the Environment Agency and Natural Resources Wales to agree exact conditions, duration, and scheduling of sSTT releases in addition to standard River Severn regulation releases. Stakeholders will be presented with this information with ample opportunity to comment on the approach in advance of Phase 2 starting.

Phase 2 will run for 2020 and 2021 and consist of the installation of any additional monitoring and releases from Lake Vyrnwy in addition to routine releases made as part of the regulation of the River Severn.

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