ANNEX J1

Gate 1 Decisions, Actions and Recommendations

This document has been written in line with the requirements of the RAPID gate two guidance and to comply with the regulatory process pursuant to Severn Trent Water's statutory duties. The information presented relates to material or data which is still in the course of completion. Should the solution presented in this document be taken forward, Severn Trent Water will be subject to the statutory duties pursuant to the necessary consenting process, including environmental assessment and consultation as required. This document should be read with those duties in mind.

Appendix J1: STSources Gate 1 Decision Actions and Recommendations

We have addressed the Regulators actions and recommendations given on our gate 1 paper as shown below.

Table 1: Response to Regulator Actions

Nr	Section	Actions	Where is it addressed?	How is it addressed?
A1	Solution design	Ensure that further detailed utilisation calculations are undertaken early in gate two in order to feed into the environmental impact assessment (EIA)	• Chapter 4: Water Resource Benefit • Annex A1 Netheridge Concept Design Report	• Utilisation calculations have been undertaken by the STT SRO project team; EIA will encompass both STS & STT (as Associated Development to STT SRO DCO) • Netheridge WwTW will provide the sweetening flow for the STT Pipeline interconnector when River Severn unsupported flows are not available.
A2	Solution design	For reporting on stakeholders and engagement, please provide details of issues, themes of discussion with regulators and outcomes of this engagement	• Gate 2 submission – Section 9 (Stakeholder and customer engagement) • Annex D1 Stakeholder Engagement Report	• Our stakeholder engagement is a dialogue with a variety of organisations of regulators, special interest groups, local authorities, businesses and local community groups. • Discussions have already commenced with priority groups.
A3	Cost & Benefits	Complete drought resilience modelling, taking into account possible restrictions resulting from the "River Severn drought order", which applies to the Mythe abstraction license	• Gate 2 submission – Section 6 • Annex B1 Environmental regulatory assessments	• DO benefit modelling has been undertaken by the STT SRO project team. Outputs against the 1:500 year drought are included in the STS SRO Gate 2 report. • Note: Mythe is shown to have a 14 Ml/d DO benefit but is not included in the STS SRO Gate 2 report as the option is no longer available for trading as it now forms part of STWs WRMP24 plan.
A4	Cost & Benefits	Ensure that best value analysis (following relevant guidelines) is undertaken and presented for all options within the solution, with a focus on incorporating environmental, societal and economic costs. Link into discussion of best value of this and other enabling solutions for dependant solutions (e.g Severn Thames Transfer)	• Gate 2 submission – Section 3 (Solution design, options and sub-options) • Annex A2 Pipeline Route Appraisal Report. • Annex A3 (i) Process Basis of Design Report. • Annex B5 Water Quality Modelling	The option assessment has considered the following factors in order to ensure a best value outcome of the analysis: • Engineering and design – construction risk, buildability, material choice, and hydraulic efficiency assessed. Pilot plant trails planned to optimise solution selection. • Environmental impact – ecological impacts, embedded and operational carbon and flood risk assessed • Social impact – impact and disruption to local communities assessed and initial stakeholder feedback considered • Cost – comparison between estimated economic costs has been undertaken • Programme – relative programme durations and ease of construction have been considered • Value – wider environmental and societal value considered and assessed
A5	Environment	Update status and deterioration risks under the (Water Framework Directive) (England and Wales) Regulation 2017, with particular attention paid to: class used; standards	• Gate 2 submission – Section 6 (WFD) • Annex B1 – Environmental Regulatory Assessment (IEA) • Annex B3 – Environmental Regulatory Assessment (WFD)	The STS Gate 2 submission includes an updated WFD assessment. We have engaged with the EA through the completion of the Gate 2 WFD assessment, including a meeting to discuss their comments following review of the WFD assessment. The assessment concluded that the scheme would not lead to a deterioration in any water body and would not create any impediments to water bodies achieving good status.

Nr	Section	Actions	Where is it addressed?	How is it addressed?
		used; chemicals; <10% deterioration; impact at permit limits		

Table 2: Response to Regulator Recommendations

Nr	Section	Recommendations	Where is it addressed?	How is it addressed?
R1	Solution design	Develop utilisation figure during key drought events (such as 1:500 year evets). This development would require input from other solutions / regional models. Ensure lead in time for supply, dependant on solutions stand-by operating status, is represented in any receiving solutions decision making	• Chapter 4: Water resource benefit • Chapter 3: Operation of the new assets	• DO benefit modelling has been undertaken by the STT SRO project team. Outputs against the 1:500 year drought are included in the STS SRO Gate 2 report. • We have developed a Hot Standby operational standby mode for the additional treatment processes which will allow the plant to be returned to either sweetening flow or peak flow mode as required. This will require constant operation of some plant to ensure viability of the biological processes. • We have worked closely with the team to develop modes of operation which meet this fundamental requirement.
R2	Solution design	Further engage customers on change of supply source as a result of implementing this solution	• Gate 2 submission – Section 9 • Annex D1 Stakeholder Engagement Report	• We anticipate that customers will need assurances about the safety of transferred water (particularly from a recycled source) and they want to understand if there will be potential changes to the aesthetics of their water supply. • The multi-SRO 'Britain Thinks' study, covering the STT transfer, covers this area of stakeholder interest in detail
R3	Cost & Benefits	Further consider social and amenity value, if this is limited due to type of solution, this can be explained in the submission	• Gate 2 submission – Section 6 • Annex B3 – Environmental Assessment SEA, HRA, WFD, BNG & Nap Cap, INNS	• Limited scope for wider social or amenity value. Some discussion in Opportunities and Future Benefits section, as well as natural Capital Assessment. • The scheme and its associated development will be delivered as part of STT and will share the benefits of the river system enhancement • Wetland treatment for the Netheridge WwTW discharge has been considered and will be further developed in Gate 3 if the alternative, non-treatment options do not progress. Wetlands would provide ecosystem resilience, carbon capture, flood mitigation and natural capital benefits.
R4	Cost & Benefits	Further investigate potential opportunities of wider resilience benefits brought about by specific options within this solution. We recognise types of solution may limit the opportunities available	• Chapter 4: Water Resource Benefit • Annex A1 Netheridge Concept Design Report	• Limited scope for resilience. Some discussion in Opportunities and Future Benefits section • STW are investigating the potential for extending the transfer to support other WTWs when not required by STT.