



# ANNEX F1

## Updated Scheme Delivery Plan

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.

# Severn Trent Sources SRO

RAPID Gate 2 Submission  
Annex F1: Scheme Delivery Plan

## Contents

- 1. Introduction 3
- 2. Overall Programme for SRO Delivery 3
  - 2.1 Introduction 3
  - 2.2 Detailed Scheme Plan to Construction Ready 3
  - 2.3 Critical Path and Interdependencies 6
- 3. Risk Management 7
  - 3.1 Programme Risk Register 7
  - 3.2 Key Activities 9

## Tables and Figures

- Table 1- Significant Programme Milestones ..... 4
- Table 2- Integrated Programme ..... 5
- Table 3- Programme Assumptions ..... 6
- Table 4: Risk RAG scoring matrix ..... 7
- Table 5- Rapid Risk Definitions ..... 8
- Table 6- Current STS SRO Risk Register ..... 9
- Table 7: Expected Key Activities and Decisions ..... 10

Version Number	Date	Purpose
1	21/06/22	Initial draft
2	09/12/22	Update in response to RAPID query STS002
3	12/12/22	Update in response to RAPID query STS002



# 1. Introduction

This document provides a technical annex to the Gate 2 Report for the Severn Trent Sources (STS) Strategic Resource Options (SRO), it includes the proposed programme for delivery of the scheme, a summary of the proposed work to be completed during Gate 3 and a register of recognised risks and proposed mitigations.

This document supports the summary provided in Chapter 7 in the main Gate 2 Report.

## 2. Overall Programme for SRO Delivery

### 2.1 Introduction

The STS SRO requires additional treatment at Netheridge Wastewater Treatment Works (WwTW) and a new pipeline to transfer 35Ml/d to the River Severn. This will enable the Severn to Thames Transfer (STT) SRO to then transfer these flows to the Thames Water Utilities Limited (TWUL) region for additional treatment and use by its customers.

The two SROs need to be aligned to meet the demand profile for Severn of the STT SRO. This is the main complexity when programming this SRO, along with the numerous options for planning, consenting and procurement. To provide an overall timeline for deployable output (DO) from STS we have taken advice on these components and ensured alignment with the delivery to the STT SRO.

The regional and WRMP24 plans are still at a draft stage and will be subject to further consultation, regulatory scrutiny, and potential change through to their finalisation, which is anticipated to be autumn 2023. For STS, we have used the indicative dates that STT will be required; it is considered premature to establish firm conclusions at this stage, pending the outcome of this process and the approval of final plans.

The draft WRSE regional plan indicates the requirement for the STT SRO to supply unsupported flows by 2050. This includes the works at Netheridge WwTW and transfer pipeline as part of the STS SRO, as these will provide the sweetening flows for STT. However, the plans do include for STT being available in 2040 under an 'alternative pathway'. This will also apply to the STS SRO, on the assumption that it is still required to provide the sweetening flows.

For the start of Gate 3 in 2023, it is recommended that STS progresses at the same pace and in parallel with STT. In conclusion, the premise of the plan presented is based on ensuring STS would be 'construction ready' in AMP8, should it be required to support STT.

Note that the critical path to Gate 3 runs through the DCO pre-application process, with the STS SRO being considered as Associated Development to the STT SRO

### 2.2 Detailed Scheme Plan to Construction Ready

Our detailed scheme plan follows the premise that STS progresses in line with STT as they are both linked. This will ensure that STS is available to support STT when needed.

As set out in Table 2 below, the Gate 3 duration is just over two years. This results in our proposed Gate 3 date being in Q1 (January to March) of 2025. At this stage we are recommending a time range, due to the level of programme risk and uncertainty through the next stage of the project.

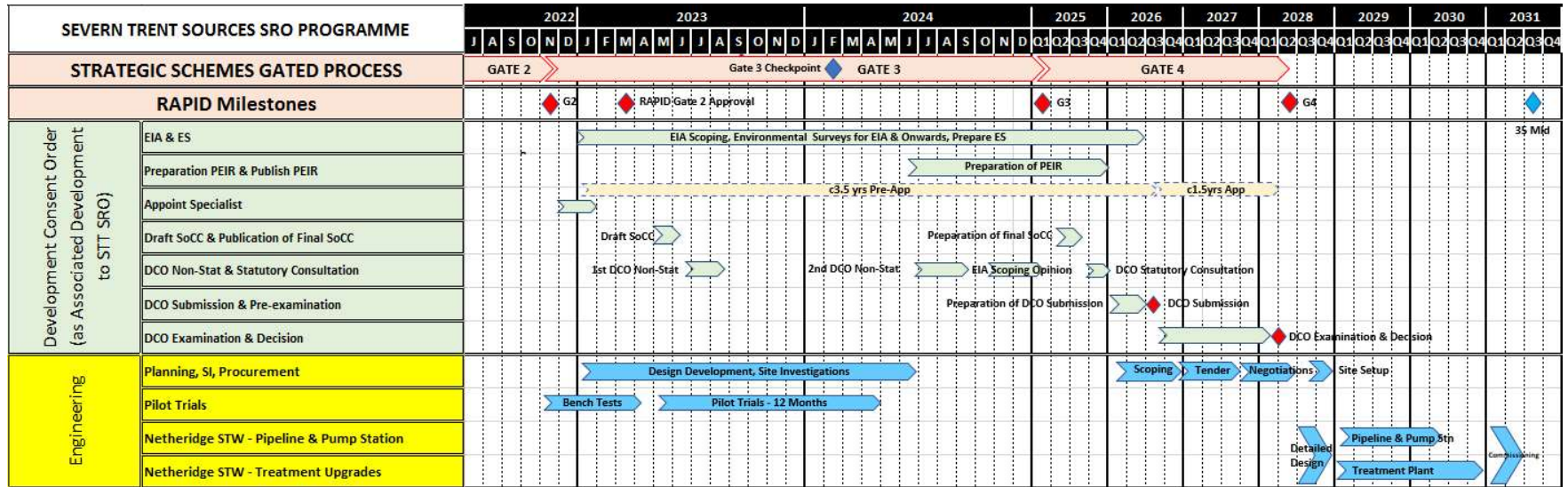
Our plan is based on STS being 'construction ready' in AMP8 to be able to support the delivery of STT. Table 1 below shows the plan to achieve this. It is considered the earliest possible timeline accounting for the design, consenting, procurement, construction, and commissioning activities. This indicates that the STS SRO could, if required, be 'construction ready' by 2029 and commissioned to enable the DO by 2031.

The significant programme milestones are:

Milestone	Key Output / Alignment	Date
End Gate 3 / Start Gate 4	Pre-Application Stage of DCO Process (includes EIA, PEIR, Environmental Statement, Non-Statutory and Statutory Consultations)	Q1 2025
End Gate 4	DCO Approval Decision	Q2 2028
Complete Procurement	Contact in place with appropriate design and build contractor	Q2 2028
Construction Ready	Detailed design completed to a point to permit site start; all land entry issues resolved	Q1 2029
Assets Commissioned	DO available for STT	Q3 2031

**Table 1- Significant Programme Milestones**

Table 2- Integrated Programme



The above programme relies on several assumptions. The significant ones are listed in Table 3 below:

<b>Assumption</b>	<b>Commentary</b>
Option Selection	The programme assumes that STS SRO is still required to support STT and that STT will continue.
DCO	It is assumed that all works required as part of the STS SRO can be consented as 'associated development' as part of any STT DCO application
Procurement	As per the advice provided, we have assumed that DPC is not applicable and that a design and build contract will be awarded through a compliant procurement process
WRMP Public Enquiry	It is assumed that, in the event of any enquiry, the STS SRO can proceed.
WRMP finalisation	It is assumed that this is completed in 2023
RAPID Gated Process	It is assumed that all activity can proceed whilst a decision is made at each approval Gate
DCO Approval	It is assumed that DCO is approved by the Secretary of State and that there are no exceptional or material requirement introduced that will affect the delivery of the SRO

**Table 3- Programme Assumptions**

## 2.3 Critical Path and Interdependencies

The critical path to Gate 3 runs through the DCO pre-application process, with the STT SRO leading the DCO, for which the STS SRO will be Associated Development. The key activities associated with this are:

- Section 35 request (if required)
- Non-Statutory Consultation
- PEIR
- Statutory Consultation
- EIA Scoping
- Environmental surveys (considering seasonality)
- Environmental Statement
- Collate application data and documents
- DCO drafting

The key interdependencies for this SRO are:

- STT – STT needs to continue and be part of the WRMP24 approvals process
- Gate Approval – Approval at the relevant RAPID Gate dates is essential to proceeding with the project
- DCO – STS SRO will be part of the STT DCO process as an 'associated development'.

### 3. Risk Management

#### 3.1 Programme Risk Register

We actively maintain a project risk register for STS SRO, which records risks and tracks mitigation actions. Key risks, defined as those with a high residual risk or those where mitigation plans are off track are reviewed by the STS SRO project board monthly.

Risk is managed across the SRO programme using two specific approaches:

1. A Costed Risk Register which is produced by the technical workstreams. This follows an industry standard Monte-Carlo methodology and provides the detailed breakdown of technical and construction phase risks that could have a material impact on the costs of the scheme.
2. The overarching Programme Risk Register is reported at high-level to RAPID through the quarterly reporting process. This provides a register of programme level risks to the overall delivery of the scheme. It includes risks associated with the STT system where these would not otherwise be dealt with at a scheme level.

The following tables are included below:

- The risk RAG scoring matrix in Tables 4a and 4b
- The RAPID risk definitions in Table 5
- Current STS SRO Risk Register in Table 6

**Table 4a: Risk RAG scoring matrix**

RISK RAG SCORING	Probability of risk occurring					
	1	2	3	4	5	
Impact of risk occurring	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5



**Table 4b: Risk RAG scoring matrix**

Probability of risk occurring				Impact of risk occurring			
Probability	Definition	Scale	Value	Probability	Definition	Scale	Value
Very High	Highly likely to occur	>50% chance	5	Very High	Could stop the project	Cannot deliver the project	5
High	Likely to occur	20% - 50% chance	4	High	Large impact to the project	Major shortfalls	4
Medium	Possible is may occur	10% - 20% chance	3	Medium	Medium impact to the project	Some shortfalls	3
Low	Low but not impossible	5% - 10% chance	2	Low	Low impact to the project	A few shortfalls	2
Very Low	Very low but not impossible	1% - 5% chance	1	Very Low	Very low impact to the project	Few shortfalls of a limited nature	1

**Table 5- Rapid Risk Definitions**

GREEN	No risk/further risk and progress is going to plan
AMBER	There is a risk that is impeding/could impede progress but there is a plan to manage/mitigate the risk
RED	There is a risk that is impeding/could impede progress and there is no current plan to manage/mitigate the risk

**Table 6- Current STS SRO Risk Register**

RAPID Risk number	Short Description	Detailed Description	Risk Score	Mitigation strategy	Category	Trend / Status	Residual Risk
RSK004	Regional Plan Reconciliation	Risk that the regional Plans will not align, and that a difference will exist in the selection of SROs across the regional plans.	16	Until clarity is given, initially through publication of the WRSE Draft Plan (anticipated Sept 2022) and ultimately in the form of the final WRSE Plan, uncertainty remains regarding SRO outcome requirements, both in terms of supply volumes and dates. Mitigation: close liaison with WRSE through ACWG; scenario planning plus ability to deliver in a phased approach.	Planning	Stable	12
RSK005	Commercial information sharing	Where companies are working together on scheme costing they will be potentially sharing cost sensitive information which could be interpreted as being anti-competitive.	9	Embedded processes in the project to ensure competition law is not breached following advice from legal colleagues. An interim management strategy is to take a cautionary approach which means what is shared is only what is needed to be shared	Competition act	Decreasing	6
RSK007	CBA and social net gain valuations	Risk that our current CBA methodology doesn't adequately account for emerging views on social net gain valuation.	9	Common issues across SROs with a common solution being sought through ACWG. A brief has been written and shared with RAPID.	Environment	Stable	6
RSK010	Carbon Neutrality approach	Lack of clarity around carbon neutrality requirements could lead to inconsistent costing across SROs and deliverables that don't meet RAPIDs expectations.	12	All SROs are working with RAPID to get a clear and common position on Carbon Neutrality. A task and finish group has been established to provide a consistent approach across SROs.	Environment	Decreasing	6
RSK031	Output availability	We have identified that during conditions of low inflow to Netheridge WWTW we may not be able to supply STT with 35ML/D raw water	12	Further analysis of flow data and impact of growth to be undertaken in Gate 3; make up any shortfall via other sources if required	Environment	Stable	8
RSK032	Anticipated permitting is resulting in additional treatment	Due to the EA current requirements to undertake a surface water pollution risk assessment, the engineering consultant's solution deals with a worse case scenario - which has increased the SRO cost considerably from what was understood at Gate 1	25	Undertaking sensitivity analysis and dilution modelling reviews to establish if the proposed treatment and process units can be relaxed in the solution by provision of supporting information through further dialogue with the EA. Bench trials and pilot plants proposed in G3	Engineering	Stable	9
RSK034	Discharge point agreement	There is a risk that there is no formal agreement / sign-off of the Haw Bridge option as the preferred solution. STW have discussed with RAPID and the EA have not currently agreed.	15	The EA have agreed that STW will issue a technical note on the benefits / drawbacks and impact to the Environment to use the Haw Bridge location to discharge, risk of option selection considered low	Engineering	Stable	4
RSK035	Securing cross company bulk water supply agreements	STW will need to agree a commercial contact with Thames Water to cover the bulk supply of raw water to feed STT SRO from STS SRO; risk to both projects remains until terms are agree and contract executed	13	Ongoing and continued close collaborative liaison between STW and Thames Water, utilising appropriate legal and commercial support as required, to draft and agree appropriate contractual terms and conditions	Commercial	Stable	10

### 3.2 Key Activities

Table 7 below shows the high-level work breakdown structure and key activities. These are aligned to the requirements defined by Ofwat's strategic regional water resource solutions appendix to the PR19 Final Determinations and Guidance for Gate 2.

**Table 7: Expected Key Activities and Decisions**

Phase	Timing	Name	Key Activities	Decisions
1	April 2020 – Jan 2022	Gate 1	<ul style="list-style-type: none"> <li>RAPID Gate 1 submission</li> </ul>	
2	July 2021 – Nov 2022	Gate 2	<ul style="list-style-type: none"> <li>RAPID Gate 2 submission</li> </ul>	
3	Dec 2022 – Q2 2025	Gate 3	<ul style="list-style-type: none"> <li>Alignment of scheme need timing and scale to Final WRMP24 and final Draft Regional Plan (winter 2023/4)</li> <li>Statement of Community Consultation (SoCC) drafted, agreed and published</li> <li>Commence and complete engineering data collection and survey</li> <li>Commence environmental baseline data collection and survey</li> <li>Land referencing</li> <li>Complete remaining options technical appraisal for key aspects of the project</li> <li>Undertake Non-statutory consultation(s) on options and initial preferred scheme</li> <li>Develop EIA Scoping Report, submit to PINS and receive formal EIA Scoping Opinion</li> <li>Response to Scoping Opinion – clarity sought on issues raised. (non-statutory consultation(s) on options and initial preferred scheme</li> <li>Complete baseline data collection and survey</li> <li>Preliminary Environmental Information Report (PEIR)</li> <li>Submission for RAPID Gate 3 document suite</li> </ul>	<ul style="list-style-type: none"> <li>RAPID Gate 2 approval (Draft decision March 2023, Final June 2023)</li> <li>PINS EIA Scoping Opinion</li> </ul>
4	Q3 2025 – Q2 2028	Gate 4	<ul style="list-style-type: none"> <li>Statutory consultation(s) on final scheme</li> <li>Further design refinement and development of initial preferred scheme to reflect survey data collection and stakeholder feedback at consultation</li> <li>Ongoing liaison and negotiation with affected landowners</li> <li>Formal Environmental Impact Assessment</li> <li>Creation of full DCO document suite</li> <li>DCO submission to PINS</li> <li>preparation, preliminary meeting and examination in public</li> <li>Planning Inspector's report to Secretary of State</li> <li>Design &amp; Build Contract Scoping</li> <li>Design &amp; Build Contract Tender</li> <li>Submission for RAPID Gate 4 document suite</li> </ul>	<ul style="list-style-type: none"> <li>Partner company approval to submit DCO application</li> <li>RAPID Gate 3 approval</li> <li>Secretary of State's award of DCO</li> </ul>
5	Q2 2028 - Q3 2028	Contract award	<ul style="list-style-type: none"> <li>Design &amp; Build Tender Assessment and Contract Award</li> <li>Confirm securement of land control / acquisition</li> </ul>	<ul style="list-style-type: none"> <li>RAPID Gate 4 Approval</li> <li>Contract award for delivery</li> <li>Land acquisition contracts</li> </ul>
6	Q3 2028 – Q1 2031	Construction	<ul style="list-style-type: none"> <li>Detailed Design</li> <li>Construction lead-in and pre-mobilisation activities</li> <li>Construction and commissioning 50ML/d /100ML/d (phased as required)</li> </ul>	<ul style="list-style-type: none"> <li>Design approvals</li> <li>Final system testing</li> <li>Handover</li> </ul>