

SRN-DDR-032: Water Resources – Strategic Resource Options

Enhancement Cost Evidence Case

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from
**Southern
Water** 

Contents

1.	Introduction	3
2.	SECTION 1 – SRO costs	3
2.1	HWTWRP	3
2.2	T2ST	7
2.3	SESRO	11
3.	SECTION 2 – Land purchase costs	13
3.1	Introduction	13
3.2	Cost update	14
3.3	Selection of Site 72 and best value for customers	15
3.4	The costs could not have been foreseen in PR19	16
3.5	Spending the money in AMP7 provides best value for customers.	16
3.6	Final costs	18
4.	SECTION 3 – Response on the Havant Thicket reservoir.	18
4.1	Introduction	18
4.2	Issues	18
4.3	Our response	19
5.	Business Plan Dependencies	20
6.	Appendix	22
6.1	Section 1	22
6.2	Section 2	27
	Table 1: PR24 costs submitted in October 2023	4
	Table 2: PR24 costs submitted in February 2024	5
	Table 3: Cost profile (including Ref ID consolidation) - 28 Aug 2024	7
	Table 4: PR24 costs submitted in October 2023	8
	Table 5: Impact of scope/cost changes relative to October 2023 submission, prior to DD	8
	Table 6: Cost profile prior to DD response	8
	Table 7: BSA cost profile	8
	Table 8: Cost profile - 28 Aug 2024	9
	Table 9: PR24 costs submitted in October 2023	11
	Table 10: Cost profile - 28 Aug 2024	12
	Table 11 Comparison of costs in business plan, Feb 2024 submission, and response to draft determination.	15
	Figure 1 Schematic of the transfer from Havant Thicket to [REDACTED], including WRP	14
	Figure 2 Location of Site 72, Budds Farm Waste Treatment Works, and Havant Thicket	27

1. Introduction

This document has three components.

Section 1

Section 1 is focussed on the three Strategic Resource Options (SROs) Southern Water is requesting funding for within the AMP8 price review period; these being:

- The Hampshire Water Transfer and Water Recycling Project (HWTWRP)
- Thames to Southern Transfer (T2ST)
- South-East Strategic Reservoir Option (SESRO)

The document supplies information relating to any significant movements in scope and / or cost forecast since the original submission. Accordingly, it also presents current cost forecasts for each SRO, supported with evidence relating to the confidence and robustness of the forecast.

Each SRO is presented separately below. All costs are in 2022/23 prices.

Section 2

Section 2 provides evidence for the inclusion of land purchase costs as transition funding. The land is a key part of HWTWRP, and is referred to as Site 72. Purchase of the land was completed in 2024.

Section 3

Section 3 provides a response to some issue concerning the Havant Thicket Reservoir, which is an essential component of HWTWRP.

2. SECTION 1 – SRO costs

2.1 HWTWRP

Brief Scheme Overview

Final, treated effluent taken from Budds Farm WTW, will be transferred to a new Water Recycling Plant in the vicinity of Budds Farm WTW. Recycled water then transferred to Havant Thicket Reservoir (under construction by Portsmouth Water) where it mixes with spring water from Portsmouth Water's Bedhampton and Havant Springs. When needed, water from the reservoir is transferred (c.40km) to Southern Water's Otterbourne WSW.

The scope is predominantly delivered by a Direct Procurement for Customers (DPC) Competitively Appointed Provider (CAP). Connections at Budds Farm WTW and [REDACTED] are not in the DPC CAP scope. Alignment works to integrate HWTWRP pipework with Havant Thicket Reservoir (HTR) is being undertaken by Portsmouth Water. The intention, currently, is for Portsmouth Water to submit a Cost Adjustment Mechanism (CAM) to Ofwat to adjust their HTR funding allowance to accommodate these alignment works. Until the CAM is concluded, Southern Water has accounted for this additional scope / cost as a risk as discussed below.

Southern Water informally submitted externally assured RAPID¹ Gate 3 HWTWRP material to RAPID at the end of March 2024, and formally submitted, with Portsmouth Water and Southern Water Board Assurance statements, on 31 July 2024.

PR24 Submission

The following table overviews the October 2023 submission.

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
100115	Recycling: Recharge of Havant Thicket reservoir from Budds Farm and new WRP (60Mld)	10.329	3.098	2.253	1.162	1.162	18.004
100037	Import: Havant Thicket – [REDACTED] direct raw water transfer (90M/d)	47.366	14.209	10.334	5.327	5.327	82.564
HWTWRP – SWS Only Costs		57.695	17.307	12.588	6.489	6.489	100.567
100214	Import: Havant Thicket – [REDACTED] direct raw water transfer (90M/d) - the DPC element	-	-	-	141.500	141.500	283.000
Total HWTWRP – SWS + DPC Costs		57.695	17.307	12.588	147.989	147.989	383.567

Table 1: PR24 costs submitted in October 2023

An update to the October 2023 PR24 forecast was provided to Ofwat in February 2024, where the £100.57m AMP8 cost was reduced to £67.73m as described below:

- WRP Land (Site 72) Procurement:** An opportunity has been taken to procure a [REDACTED] land parcel (referred to as Site 72) required for the Water Recycling Plant (WRP). In the October 2023 PR24 submission this was envisaged to be in Year 1 of AMP8 with a value of c.£47.4m based on land agent evaluations which assumed a worst case that the land would have full planning permission for development and construction would have commenced. Since October 2023, following an approach by the landowner to Southern Water, we have since gained Board approval to procure this land at the much lower price of c.£14.65m (a saving of c.£32.75m) compared to that initially advised as the site had not been developed. It was directed by RAPID in a letter to the ACWG (dated 25 May 2023, para 4 refers – see Appendix A) that land procurement ahead of 2025-2030 should be treated as transition funding, so the cost for this land purchase was retained in AMP8 Year 1 but at the lower price. The change in cost relating to this procurement (a reduction of c.£32.8m) includes all associated costs including stamp duty, external agents and SWS’s incurred legal fees as well as searches, but excludes VAT. We are applying for transition funding for the final cost as part of the response to the draft determination. Details are given in Appendix F of this document.

The following table overviews the subsequent February 2024 PR24 submission.

¹ Regulatory Alliance for Promotion of Infrastructure Development (RAPID)

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
100115	Recycling: Recharge of Havant Thicket reservoir from Budds Farm and new WRP (60M/d)	10.329	3.098	2.253	1.162	1.162	18.004
100037	Import: Havant Thicket – [REDACTED] direct raw water transfer (90M/d)	14.531	14.209	10.334	5.327	5.327	49.729
HWTWRP – SWS Only Costs		24.860	17.307	12.588	6.489	6.489	67.733
100214	Import: Havant Thicket – [REDACTED] direct raw water transfer (90M/d) - the DPC element	-	-	-	141.500	141.500	283.000
Total HWTWRP – SWS + DPC Costs		24.860	17.307	12.588	147.989	147.989	350.732

Table 2: PR24 costs submitted in February 2024

Significant scope and/or cost changes since Feb 24 submission

- WRP Land (Site 72) Procurement:** Further to the above, in April 2024, Site 72 was acquired, meaning that the allocation in 2025-26 could be removed, and considered as transition funding within AMP7.
- Other Land Procurement:** Further land is required to be purchased along the main pipeline route between Site 72 and [REDACTED]. This further land procurement and compensation costs had not been accounted for in the Oct 23 or Feb 24 figures and accounts for c.£6.61m of additional costs for acquisition of AGP freehold, easement rights (land depreciation due to the presence of a pipeline), temporary rights for site compounds (offices, parking etc), crop loss/temporary disturbance compensation, as well as OB. The estimate has been supplied by SWS’s land agent.
- Alignment Works:** The outcome of discussions with Portsmouth Water (PW) and Ofwat relating to integration of HWTWRP with HTR have been included in the most recent forecast. Ofwat has agreed in principle to this approach, subject to resolution of the second CAM. The scope includes inclusion of pipework across the HTR footprint and into the reservoir, but predominantly relates to PW designing, consenting, and constructing a tunnelled solution accommodating necessary pipework to simultaneously supply PW’s spring water and SWS’s recycled water to and from HTR. The approach aligns to the RAPID Gate 3 submission of 31 July 2024; more detail of which is contained within Gate 3 Section 2.3.8 ‘Pipeline details between WRP Site and HTR’, Section 8.2, Annex 8A, Chapter 5 and Annex 5. This opportunity de-risks HWTWRP by delivering this section of the scheme earlier than would otherwise have been planned via DPC and brings with it benefits such as reduced (HWTWRP and HTR) combined cost to the customer, less local resident disruption, and carbon reduction benefits through avoiding two separate construction periods through the same route, in the same area. Funding for these ‘alignment works’ is currently being progressed by PW via a Cost Adjustment Mechanism (CAM) submission to Ofwat, however given the expected timing for PW to submit the CAM, a final decision from Ofwat’s Major Projects Committee (MPC) is expected to be later than the PR24 revised submission date. Accordingly, an alignment works funding allocation has been included within the HWTWRP figures as a risk item, also accounting for a scenario where PW’s CAM application is not or only part awarded, and SWS is required to provide direct funding to PW to seize the opportunity described. The result is c£81.75m of risk being introduced to the HWTWRP estimate within AMP8. These costs were originally included within the DPC forecast which has subsequently also been re-profiled as a result. On receiving the outcome of the CAM, this risk will be removed either in full or in part (as required) from these figures.
- Oversight of the CAP/DPC:** Upon comparing the Oct 23 and Feb 24 PR24 profiles with the RAPID Gate 3 cost profile, an omission relating to SWS management/oversight of design/construction by the CAP once the DPC contract is awarded was identified. c.£16.20m had been included in the RAPID Gate 3 estimate and is now incorporated across years 4 and 5 of the AMP8 revised profile. This forecast has been reviewed by our external assurers.
- Risk/OB:** Further alignment to the RAPID Gate 3 estimate has introduced a revised risk and Optimism Bias (OB) profile for the Gate 4 period and post-Gate 4 period. This includes a c.£8.54m risk relating to the supply of DNO (power) to Site 72 and the pumping stations along the main pipeline route. Provided by SWS’s Cost Intelligence Team (CIT), the overall estimate has thus increased by c.£12.00m in AMP8.

- **Scope maturity:** Business as usual work to mature understanding of scope and cost of the project includes SRO connections at Budds Farm WTW and [REDACTED] (neither of which are within DPC scope). This has increased AMP8 costs by a further £5.36m. Once [REDACTED] scope is better understood, leverage of an opportunity to incorporate design requirements into a separate project addressing a DWI Final Enforcement Order (FEO) at [REDACTED] will see efficiency savings for the project and optimise costs to the customer.
- **DPC:** As overviewed above, costs associated with the alignment works tunnelled solution have been transferred from DPC into SWS risk, subject to the outcome of PW's CAM application. Also in this space, thinking has matured relating to the DPC schedule which since the RAPID Gate 3 'informal' submission has been discussed with Ofwat (via a 'deep dive' workshop on 23 May.2024). As a result, the original 'flat line' profile has matured to a more considered profile. This profile is not guaranteed, and is likely to change through the next stages of Ofwat's DPC process, future Market Engagement feedback, and ultimately award of a competitively tendered DPC to a CAP. It should be noted that the reduced AMP8 forecast here, is offset in AMP9. As a reminder these costs (are not funded by Southern Water in AMP 8 but provide an indication of total AMP8 project cost. When an Allowed Revenue Direction is received these costs will be add to Southern Water bills to align with the payments to be made to the CAP.

Response to the Draft Determination

- **Totex:** Whole life Totex for HWTWRP had been incorrectly supplied to Ofwat in Oct 23 and Feb 24. Investigation into the £917m (2022/23 prices) figure supplied in Feb 24 has identified that spend incurred within AMP7 had been omitted, and with there are updates to capital costs. We have reviewed and added Opex requirements which were not previously included. This is forecast at £26.262m per annum primarily driven by energy costs (retained by Southern Water for now to avoid price uncertainty in the CAP Agreement) for the ceramic micro-filtration in the WRP alongside chemical needs required to achieve required water quality standards prior to HTR transfer. This is considered worst case, continually operating the WRP at full capacity, however this figure would therefore cover any mid-life asset renewals required (e.g. pump replacement etc). By applying an 80-year duration (aligned to the Bulk Supply Agreement (BSA) timeframe), but commencing this from HTR project start in 2021, with a 2034 commissioning date, this gives a 67-year operational period. Employing these assumptions results in a Whole Life Cost of c.£3.03 bn (undiscounted). We recognise this is a significant amendment to the Feb 24 submission but also note it is comparable to projects such as Beckton Water Recycling as provided in Table 1 of 'Major projects development and delivery' annex.
- Ofwat's methodology for DPC development costs as described in the 'Major projects development and delivery' annex of the DD has been considered for application to a revised cost profile within this response. Application of this methodology, using the above calculated revised Totex (0.55% of Whole Life Costs plus £9m) would suggest an AMP8 allowance of c.£16.7m, however given DPC development for HWTWRP commenced in AMP7, the much lower £8.36m estimate provided in the Feb 24 submission has been retained as the current, assured estimate.
- SWS notes that the 2028/29 construction start year quoted in the DD is correct, aligning to the current P80 probabilistic schedule (i.e., there is 80% confidence) milestone reported in the RAPID Gate 3 submission as December 2028.
- The DD separates funding between baseline and contingent elements (refer to the 'Major projects development and delivery' annex, pg23), however SWS considered the definition of the delineation between these stages as ambiguous and raised an Ofwat query (OFW-IBQ-SRN-013) seeking clarification of these definitions. Within the response, it states: '*Contingent expenditure: [covers] all costs incurred after consent is granted*'. Ofwat's response to this has helped confirm the DD response.
- Given the connection scope at [REDACTED] is planned to be delivered by incorporating requirements into a separate project addressing a DWI FEO (see above), it is imperative that funding for the [REDACTED] scheme is provided within AMP8. This is to secure the ability to process the 85.5Ml/d untreated water from the Havant Thicket reservoir to create potable water for customer consumption, protecting on-time delivery of the SRO strategic benefit.
- All land procurement is anticipated to be 100% recoverable via the price review process.

The outcome from the above-described scope/cost movements combined with this response to the DD, leads to a revised cost profile, as follows:

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
	Recycling: Recharge of Havant Thicket reservoir from Budds Farm and new WRP (60Mld)	-	-	-	-	-	-
CW8.24	Import: Havant Thicket – [REDACTED] direct raw water transfer (90M/d)	58.244	56.027	56.027	11.411	14.825	196.534
HWTWRP – SWS Only Costs		58.244	56.027	56.027	11.411	14.825	196.534
SUP12	Import: Havant Thicket – [REDACTED] direct raw water transfer (90M/d) – the DPC component	-	-	-	55.670	113.824	161.395
Total HWTWRP – SWS + DPC Costs		58.244	56.027	56.027	67.081	128.649	366.028

Table 3: Cost profile (including Ref ID consolidation) - 28 Aug 2024

Note: This forecast includes alignment works risk totalling c£82m (see text above), equally spread over 2025/26, 2026/27 and 2027/28.

The data table entry in CW8.25 for 2025/26 contains £26.953m. This is an error but was identified late in the response time and the tables could not be updated. The correct value should be £58.244m, and the data table would then align to the figures above. Costs in the table will be updated when there is an opportunity.

Costs incurred by the CAP in AMP9 are £719.64m, (see SUP12).

Confidence and Robustness Evidence

The RAPID Gate 3 submission including costs/expenditure was externally cost assured by Jacobs between November 2023 and March 2024. This concluded that any weakness in the submission, were modest and non-material, reflecting low to medium risk relative to RAPID guidance for cost/expenditure. Further to this, the letter provided by Jacobs for the formal Gate 3 submission in July 2024 (refer to Appendix B), states that 'Based on evidence viewed as part of the gate three submission assurance, expenditure is being monitored and has been incurred only on activities that are appropriate for gate three.' There are no amendments to the approaches undertaken to date, for the Gate 4 period and beyond.

RAPID also commissioned the same external consultancy, Jacobs, to undertake a review of HWTWRP's Gate 3 cost estimate in 2023. The final Jacob's report concluded that 'estimated costs to gate 3 are within the bounds expected'. The approach undertaken for Gate 3 is not unique to this stage of project development, and is unchanged for the full project cost estimate, as such we are confident, with the information available to the project at this time, that the cost profile presented in response to the DD is robust.

2.2 T2ST

Brief Scheme Overview

A new Water Supply Works (WSW) is to be built on land procured by Thames Water (TW) for SESRO (see next section). The project will see up to 120Ml/d of potable water transferred from the WSW to the Hampshire grid via a c.80-85km mainly open cut pipeline with tunnelled sections to traverse terrain such as major roads, railways, rivers, and ancient woodland.

The T2ST pipeline will connect to Crabwood and Yew Hill WSRs near Winchester, with spur connections to SWS Highclere and Andover WRZs. Spur connections from the main pipeline are also planned for TW at Newbury and South-East Water at Basingstoke, both at up to 10Ml/d, subject to yet to be agreed bulk supply agreements.

Scope will be predominantly delivered by a DPC CAP. This scheme is not required to be operational until 2040 and is entirely dependent upon the construction of SESRO to supply the raw water to the WSW.

The scheme passed RAPID Gate 2 in November 2022 and has reported on the first of two Gate 3 checkpoints in April 2024. Gates 3 and 4 are currently planned for November 2027 and March 2030 respectively.

PR24 Submission

The following table overviews what was provided in the October 2023 submission.

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
100207	T2ST Planning and Development	19.709	17.682	11.594	15.416	15.416	79.817
Total T2ST		19.709	17.682	11.594	15.416	15.416	79.817

Table 4: PR24 costs submitted in October 2023

Significant scope and/or cost changes since Oct 23 submission

- There have not been any significant scope or cost changes on T2ST since the October 2023 PR24 submission. A small variation in the RAPID Gate 3 forecast has arisen in this period taking the AMP8 proportion of Gate 3 from £45.121m to £45.238m (an increase of £177k within 2027/28) as identified during preparation for Gate 3 Checkpoint 1 (April 2024), relating to the Kennet Valley spur connection.

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
100207	T2ST Planning and Development	-	-	0.177	-	-	0.177
Total T2ST		-	-	0.177	-	-	0.177

Table 5: Impact of scope/cost changes relative to October 2023 submission, prior to DD

This leads to the following:

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
100207	T2ST Planning and Development	19.709	17.682	11.771	15.416	15.416	79.994
Total T2ST		19.709	17.682	11.771	15.416	15.416	79.994

Table 6: Cost profile prior to DD response

Note: This estimate does not include Ofwat's approach to determining DPC development costs as advised in the DD (11.Jul.2024).

Discussion and negotiation of BSA's with TW and South-East Water for raw water supply from SESRO and for the 10Ml/d potable water spur connections is not accounted for in this estimate. Based on intelligence from HWTWRP BSA1 development up to £2m could be expected per BSA. The raw water BSA (SESRO to T2ST) is envisaged to be completed in AMP8, and the spur connection BSA's are likely to commence in AMP8 but conclude in AMP9. In total £4.50m could be expected in the AMP8 profiled as below. Note: these figures are not included within the DD response, and it is envisaged that T2ST RAPID Gate 3 and 4 will approach this in terms of allowance, as cost estimates mature.

BSA	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
Raw – SESRO/T2ST	0.500	0.500	0.750	0.250	-	£2.000
Potable – T2ST/TW	-	-	0.250	0.500	0.500	£1.250
Potable – T2ST/SEW	-	-	0.250	0.500	0.500	£1.250
Total BSA	0.500	0.500	1.250	1.250	1.000	4.500

Table 7: BSA cost profile

Note: The potable BSA's would be expected to complete in AMP9. These figures are not included in the final profile presented below.

Response to the Draft Determination

- Funding Split:** SWS acknowledge and welcome the move away from the AMP7 50:50 funding split between SWS and TW. The SWS 100% funding share within the DD from AMP8 aligns to the recommendation within the RAPID Gate 2 submission for SWS to be lead developer of this SRO.
- Totex:** Whole life Totex for T2ST has been refined from the £2,237m figure supplied to Ofwat in Oct 23, utilising the Capex at £1.0016Bn (2022/23 prices). Opex has been calculated by SWS's Cost Intelligence Team (CIT) and assumes operation commences in January 2040. As per HWTWRP it assumes the scheme is running at full capacity, in this case at 120MI/d, providing an annual Opex forecast of £19.057m. This figure would cover any mid-life asset renewals required (e.g., pump replacement etc). By applying an 80-year duration (as per the HWTWRP approach, with a project start aligned to RAPID Gate 2 in November 2022, this gives a 62-year operational period. Employing these assumptions results in an updated Whole Life Cost of figure of c.£2.188bn (undiscounted), see SUP12
- Gate 3:** A RAPID Gate 3 figure of £35.20m is provided in the DD for AMP8. This figure does not align to that presented to RAPID in April 2024 at Gate 3 Checkpoint 1. Here, in response to the Gate 2 priority action to provide a breakdown of Gate 3 costs, the forecast to Gate 3 was presented in three stages; costs to Checkpoint 1 (Apr 24), costs to Checkpoint 2 (Apr 25) and Gate 3 costs beyond Checkpoint 2. The table presented to RAPID is provided in Appendix C for reference. Once indexed to meet PR24 criteria, a value of £42.88m (22/23 prices) is established. As the Priority action was accepted and closed by RAPID, this figure is requested of Ofwat to be included within the final determination.
- Gate 4:** With Gate 4 planned to complete in March 2030, SWS concurs that all AMP8 funding for T2ST should be categorised as baseline (zero contingent funding). The £18.14m allocated to Post Gate 4 activities in the DD would not be required in AMP8 but may be required in AMP9.

Benchmarking: A 15% pre-construction development cost challenge quoted in Ofwat's DD 'Major projects development and delivery' annex, pg19 has been applied to this SRO. The reduction is stated as being based on comparison with 'top-down and bottom-up benchmarks', however without visibility or understanding of the data used to establish this benchmark, applicability of the 15% reduction outcome to this scheme is unclear. Queries were made to Ofwat was made (OFW-IBQ-SRN-015 and OFW-IBQ-SRN-018) requesting the information / data used to conclude with the cost challenge. We have used Ofwat's answers to inform this response.

The above result in the following:

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
CW8.30	T2ST Planning and Development	20.606	18.579	12.668	16.313	16.313	84.479
Total T2ST		20.606	18.579	12.668	16.313	16.313	84.479

Table 8: Cost profile - 28 Aug 2024

Note: This estimate includes Ofwat's approach to determining DPC development costs as advised in the DD (11.July.2024) but does not include any BSA development as already described above.

Water Supply Works (WSW): SWS is working closely with TW on both T2ST and SESRO as infrastructure (e.g., the WSW) and some T2ST pipeline scope is planned to be constructed and operated in Oxfordshire on the SESRO footprint. We are currently and will continue to identify and explore viability of opportunities through AMP8 to ensure the SESRO/T2ST 'system' is optimally developed, delivered, and operated to protect customers' bills. An example of this within AMP7, relates to consenting of the WSW; development and delivery of which scope sits with T2ST. However (as of August 2024), discussions between TW and SWS are underway to transfer accountability for the WSW consenting to the SESRO project, de-risking the SERSO/T2ST 'system'. Through AMP8, should other mutually agreed, viable opportunities to transfer scope between these inter-connected projects arise, then both companies will liaise with RAPID and/or Ofwat as appropriate, to ensure customers' best interests are protected.

Confidence and Robustness Evidence

- Our Cost Intelligence Team (CIT) has confirmed (see Appendix D) that the cost assurance exercise completed for RAPID Gate 2 remains relevant. This is on the basis that Gate 2 considered costs for two main pipeline route options, and three flow rates at 50MI/d, 80MI/d and 120MI/d, with the costs supplied in the original PR24 submission aligning to the 120MI/d option and highest cost route option. Total Capex at this time was c.£1bn. This was approved by RAPID at Gate 2. The only changes to scope since then (as advised above) relate to the addition of the Kennet Valley spur connection for which the methodology used to cost this mirrored that used for the core estimate. The only other change relates to indexation.
- For the AMP8 period this project will be following RAPID Guidance through Gate 3 and Gate 4. It is also noted that the RAPID Gate 2 Priority Action relating to confirming the Gate 3 cost estimate (which accounts for half of the AMP8 period), including its breakdown referred to above, was accepted and closed by RAPID in April 2024 at Gate 3 Checkpoint 1 (refer to Appendix E). Here, the Cost Intelligence Team produced a 'hybrid' estimate using bottom-up analysis of known costs and a comparative estimate for the remaining scope. Where appropriate, cost information to support the estimate was taken from consultant delivery partners and in-house resource costs. Applicable information from the more mature HWTWRP SRO (e.g., environmental and geotechnical surveys along a pipeline corridor, stakeholder management relating to Non-Statutory and Statutory consultation, etc) is considered and adjusted for complexity and length of the pipeline where appropriate. Lessons learned and knowledge from HWTWRP's Section 35 application and DPC journey to date are also being transferred to provide confidence in T2ST forecast.

2.3 SESRO

Brief Scheme Overview

SESRO is proposed to be a 150 Mm³ storage reservoir, covering a 6.7km² surface area near Abingdon, Oxfordshire. TW is the lead developer, and (subject to the PR24 final decision) Southern Water from AMP8 onwards will become a 30% funding partner (excluding any land procurement, which will be carried out by TW. Affinity Water are a third company involved in this SRO, with a 15% funding share. SESRO is the raw water source for Southern Water's T2ST project, and hence our customers are beneficiaries.

More information on SESRO can be found via TW's website (South East Strategic Reservoir Option (SESRO) - Thames Water Resources Management Plan (thames-wrmp.co.uk)

It is planned to be delivered via a SIPR commercial model, for which TW plan to submit Stage 2 documentation to Ofwat in early Autumn 2024. After this, TW plan to submit RAPID Gate 3 material in early 2025, i.e., all in AMP7.

As noted above, the SESRO site will be the home for the T2ST WSW.

PR24 Submission

The following table overviews what was provided in the October 2023 submission.

PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
	New Reservoir – SESRO 150Mm3	12.597	12.677	12.757	10.228	5.171	53.430
Total SESRO (SWS Only)		12.597	12.677	12.757	10.228	5.171	53.430

Table 9: PR24 costs submitted in October 2023

Significant scope and/or cost changes since Oct 23 submission

As TW is the lead developer, there are no SWS driven SESRO scope changes for the AMP8 period since the October 2023 submission.

It should be noted that the current SESRO schedule would induce an expectation for payments to the SESRO Infrastructure Provider (IP – equivalent to a DPC CAP) from 2029/30 onwards. In discussion with TW and Affinity Water, the associated figures are thought to be small in this final year of AMP8. It was also agreed that transitional funding would be a more appropriate approach to managing this cost.

Response to the Draft Determination

- TW are the lead developer accounting for 55% of Capex costs (excluding land procurement which are solely contained within TW's figures), as such, whole life Totex figures are provided by TW. SWS are aware that these account for a 250 year asset life and are undiscounted.
- Despite TW being advised by Ofwat to de-risk the SESRO programme via early expenditure/investment, the SESRO DD outcome contains a 15% challenge on pre-development costs. SWS understand that TW is requesting a reinstatement of the Oct 2023 expenditure forecast, updated to account for SESRO DCO costs, the inclusion of a Shadow IP and IP management costs towards the end of the AMP8 period.
- As such, TW has produced a revised AMP8 estimate and profile, the SWS (30%) proportion of this amounts to £71.2m, all of which is expected to be classified as baseline expenditure, i.e., nothing in contingent expenditure. A further £44.321m has been provided for post-AMP8.
- We note that as lead developer, TW has stated that they plan to provide further benchmarking evidence to Ofwat to support the revised estimate.

The following table is as provided by TW to SWS for the DD response:



PR24 Ref ID	PR24 Option Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total AMP8
CW8.31	New Reservoir – SESRO 150Mm3 (SWS: 29%)	14.206	14.848	16.602	17.942	7.562	71.160
SESRO – SWS Only Costs		14.206	14.848	16.602	17.942	7.562	71.160

Table 10: Cost profile - 28 Aug 2024

Confidence and Robustness Evidence

Total project costs for the Oct 23 submission, and from which SWS’s 30% share is calculated, had been unchanged from TW’s RAPID Gate 2 submission in November 2022 which contained a TW Board Assurance statement, externally assured by Jacobs. Although SWS has not undertaken any independent assurance on the SESRO cost profile (note: we are not funded for any SESRO activity in AMP7), no scope or schedule changes have occurred since the Gate 2 submission.

As stated above, TW intends to provide further benchmarking evidence on revised costs for the DD response.

3. SECTION 2 – Land purchase costs

3.1 Introduction

The Hampshire Water Transfer and Water Recycling (HWTWR) project is a Strategic Resource Option (SRO) and is an essential component of our WRMP19 and WRMP24 plans. It is currently going through RAPID gate 3 and is the selected option for remedying the largest component of the supply / demand deficit identified in our West Hampshire region in WRMP19 and rdWRMP 2024. The option is in the process of being re-confirmed as the selected option in WRMP24. The statutory consultation ahead of a planning application under the DCO route will begin in Summer 2024.

HWTWR is the flagship project within the Water for Life Hampshire (WfLH) programme, aiming to deliver up to 90Ml/d to customers in Hampshire during a drought scenario. It facilitates abstraction reductions from the Rivers Itchen and Test, to protect delicate ecosystems. The details of our plans for the HWTWRP are given in our enhancement business case SRN29 Water Resources Strategic Resource Options and in our RAPID submissions.

The HWTWR scheme is dependent upon a water recycling plant (WRP). A comprehensive site selection activity identified “Site 72” as the preferred site, given the need to locate the WRP close to Budds Farm wastewater Treatment Works (WwTW) and the Havant Thicket Reservoir, and the need to consider likelihood of achieving planning consent, environmental impacts and other criteria. The work done to identify site 72 is described in our RAPID submissions, particularly Annex 5 of the gate 2 Submission.² The importance of this brownfield site is illustrated in the high altitude photograph attached in Supporting Information 1 below, which shows its closeness to the Budds Farm WwTW which will be its source of water, and the Havant Thicket Reservoir, into which it will discharge. We will own the land and the Competitively Appointed Provider (CAP) will then be granted rights to use for the WRP and other CAP activities via a lease or similar arrangements.

² [Annex 5: Options appraisal process – future needs assessment](#), December 2021, Section 3.1.5.1 onwards

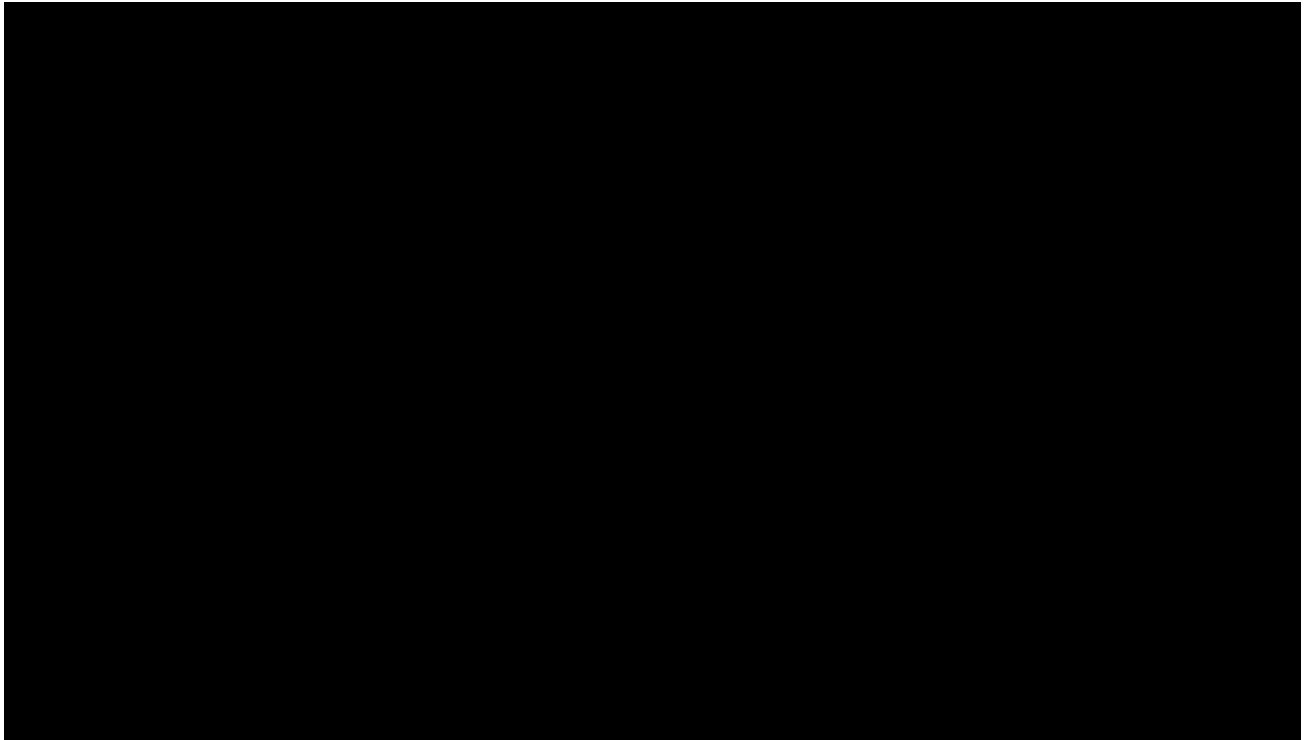


Figure 1 Schematic of the transfer from Havant Thicket to [REDACTED] including WRP

In our October 2023 business plan, we included the purchase costs of Site 72 as £47.4m based on our then external valuations of the land³. We were anticipating completing the transaction in 2026 and populated the data tables accordingly. Since then, we have successfully negotiated with the owners of the land and have completed the purchase in April 2024 for substantially less than the original valuation estimates. The final cost is £14.5m before costs of agent fees and stamp duty.

We notified Ofwat of this possibility in our response to Query OFW-OBG-SRN-223 dated 26 February 2024.

We have now removed the original costs from the AMP8 data tables and added the reduced amount into 2024/5. The impact on our data tables will be in CW3, CW8 and as this is a DPC scheme, SUP12.

3.2 Cost update

Our October 2023 plan contained £47.4m for the purchase of site 72. The table below identifies the original estimated costs, those as at the February 2024 data table update and the final costs now the purchase has completed.

³ See enhancement business case SRN29 Water Resources Strategic Resource Options, table 8.

Cost item	October submission	Updated figures provided via data tables Feb 2024	Final figures on completion
Estimated purchase date	2025/6	2025/6	Jan - April 2024
Land purchase	£47.366m	£14.500m	£14.500m
Fees, Searches, stamp duty		£1.005m	£1.005m
Agreed total cost		£15.005m	£15.505m
Convert to 22/3 prices		£14.531m	£14.651m
Total	£47.366m	£14.531m	£14.651m

Table 11 Comparison of costs in business plan, Feb 2024 submission, and response to draft determination.

3.3 Selection of Site 72 and best value for customers

The full process for site and route selection was as extensive and rigorous as possible, as the results will become the basis for our planning application. This level of rigour is needed as the approach to site selection and the chosen locations can be tested to see if the best possible site has been identified, including the possibility of judicial review. The full process is described in section 3.1.5.1 of Annex 5 of our RAPID Gate 2 submission, as in footnote 1 above. We summarise it here.

- The selection followed a five stage process:
- Stage 0 – Development of the site selection process and methodology including determination of a search envelope for the components of each Option (this approach was refined at Gate 2).
- Stage 1a – Identification of terrestrial and marine parcels based on initial physical requirements.
- Stage 2a – Sensitive receptor proximity appraisal.
- Stage 2b – Identification of major development and an appraisal of their compatibility with the process components for each Option.
- Stage 3 – Assessment against regional and local planning policies, engineering criteria and proximity to additional receptors not considered at Stage 2a.
- Route selection – Development of route Options for each land and marine parcel identified in stages 0-3.
- Stage 4 – Spatial assessment of the process components to identify a list of configurations which consists of site and route; and
- Stage 5 – Optioneering, connectivity and network feasibility to identify best performing configuration that is then taken forwards as the preferred option.

In the final version stages 4 and 5 were combined to allow sites and routes to be considered together, ensuring that potential cumulative consenting risks were understood.

Stage zero for the water recycling plant comprised identifying potentially suitable land parcels based on a 1.5km maximum distance from the Budds Farm treatment works to avoid excessive pipe lengths and pumping costs, and allowing for susceptibility to sea flooding.

At stage 1 parcels of land were selected against multiple criteria including existing land uses, land conditions, parcel size and others. A total of 17 parcels were identified at stage 1, all of which were taken forward to stage 2.4

At stage 2 the proximity of the sites to sensitive environmental locations nearby was examined, including SAC, Ramsar, SPA, SSSI, Scheduled Monuments, AONB, ancient woodland, grade 1 and 2* listed building and others. Following stage 2a, seven parcels progressed to stage 2b. Stage 2b considered conflict with previously granted planning applications. All seven sites proceeded to the next stage.

At stage 3, criteria considered potential impacts on or from flood plains, rivers, drains, schools, care homes, hospitals and other factors, 39 in total. 5 sites (sites 68, 70, 71, 72 and 75) proceeded to the next stage.

At stages 4 and 5, the risks to obtaining planning consent and the network configurations at each site were evaluated. The highest scoring site was site 72, with site 71 (an adjacent site) identified as a back-up. Site 72 had an existing planning consent but is undeveloped, whereas site 71 is already occupied by some existing developments. The configuration of the option using site 72 was taken forward to the evaluation of all options at Gate 2, using Mutli-Criteria Decision Analysis. The final decision was the selection of HWTWRP as the selected option, which depends on use of Site 72.

3.4 The costs could not have been foreseen in PR19

It was not possible for Southern Water to apply for the relevant costs at PR19. At the time, the selected option was desalination, which was located at Fawley, not Havant. The decision in the PR19 determination was to cancel any Southern Water specific funding requests and to replace them with an allowance calculated by Ofwat and to be administered by RAPID as the new water resource infrastructure regulatory body. Funding was provided to develop desalination and water recycling options in parallel, but both Ofwat and RAPID have made clear that the development funding provided does not include any allowance for land purchase.

The definite need to buy site 72 could not have been foreseen by either Ofwat or Southern Water, and no funding has been provided at PR19 for land purchase, neither for site 72 nor for any other alternative, including the original preferred option of desalination.

3.5 Spending the money in AMP7 provides best value for customers.

It was necessary, for a number of reasons, not only to progress the purchase of site 72 during AMP7 but also to expedite completion of the purchase in the period following submission of our October 2023 plan to ensure best value for our customers. These reasons include:

- Site 72 was being actively marketed by its owners as a design and build opportunity for a logistics hub (see particulars in Appendix 5).
- They were in advanced negotiations with a potential purchaser.
- The landowner was unwilling to enter into an option-to-purchase only agreement for us to purchase the land in the future once we had secured all regulatory consents
- They were due to commence an £8M programme of remediation works on the site which would not necessarily have directly benefited our proposed development of the site for the HWTWR project, and the site owner would have looked to recoup this cost in any future sale price

⁴ Site 72 was the 72nd site considered for a list of all feasible sites for all the options to be considered at Gate 2, not just the water recycling options.

- Had further site remediation and site development activities been progressed by the site owner as they originally planned, the site value and, therefore, the cost of purchasing the site itself in future would be significantly more for Southern water's customers, and there would potentially have been the additional cost of relocating businesses.

Early acquisition of the land, therefore, delivers an efficient outcome for the project as a whole in line with the Land and Property Purchase Costs guidance provided by RAPID in May 2023⁵. We completed the purchase agreement with the current Site 72 owners in April 2024. This has brought the expenditure into AMP7 and hence we are applying for transition funding.

The business plan forecast was based on the external advice we had received from our agents, Fisher German, prior to beginning negotiations with the site owners and was based on the originally projected date of 2026 for completion. An extract is provided in Appendix 4, and the key recommendation was:

"[W]e would suggest that the purchase could be in the region of £45,000,000 to £50,000,000 plus VAT."

£50m was used as the internal estimate by Southern Water. In the business plan we applied a common set of adjustments to input costs to align with our view of benchmarking efficient costs. These adjustments resulted in the value of £47.4m set out in our enhancement business case SRN 29.

This initial assessment of the value of the site was based on early discussions with the agents acting for the site owners. These agents were incentivised through the development of the site and a resulting profit share, and the higher value reflected a developed site generating a rental income and reflecting an element of profit forgone. We subsequently negotiated directly with the site owners enabling us to agree a price for the site based on the value of the site today and not taking into account profits forgone. Accelerating the timing also enabled us to avoid the significant cost of the remediation works. By taking this action and agreeing the sale as early as practicable we have saved our customers approximately £32m.

The rigour of the site selection process meant that no alternative site would offer a better option for HWTWRP. Early purchase has ensured the direct costs to customers are as low as possible.

⁵ Letter from RAPID to All Company Working Group, Land and Property Purchase Costs, 23 May 2023.

3.6 Final costs

The resulting costs are shown in the table below.

Item	Cost £m
Purchase costs for Site 72	14.500
Stamp Duty	0.860
Advisor's fees:	
██████████	██████
Searches	██████
Total cost money of the day	15.505
Paid in January 2024	1.582
CPIH Inflation factor Jan 2024 to Average 22/3	0.9307
Paid in April 2024	13.924
CPIH Inflation factor April 2024 to Average 22/3	0.9465
Total cost 22/23 prices	£14.651m

We have included the cost of the land in our enhancement capex for AMP7.

4. SECTION 3 – Response on the Havant Thicket reservoir.

4.1 Introduction

This section sets out Southern Water's response to Ofwat's PR24 draft determination proposals in relation to the Havant Thicket reservoir. The Havant Thicket reservoir was approved at PR19 to be financed and constructed by Portsmouth Water, for the benefit of Southern Water's customers. Therefore, the costs associated with the reservoir were to be remunerated through a Bulk Supply Agreement (BSA1) – i.e., Southern Water paying Portsmouth Water.

At PR19, Ofwat set a separate price control for the reservoir, setting the net price control at zero (i.e., the revenue requirement is offset by bulk supply revenue from Southern Water, with Portsmouth Water's customers not contributing financially to the reservoir. The PR19 determination set out an Outcome Delivery Incentive (ODI) for Portsmouth Water, incentivise the timely delivery of the reservoir. It also set out policy positions on allowed return and depreciation profile.

Since then, the costs of the reservoir have significantly escalated, there are ongoing discussions on the delivery date, and WRMP24 (situation four) shows from 2040 onwards that Portsmouth Water will require significant volumes of water from the reservoir to supply its own customers.

4.2 Issues

The PR24 draft determinations:

- do not include details of how the increased costs of the reservoir can be considered after the final determinations, due 19th December 2024.
- do not update the ODI for changes in circumstances (including changes in project size and delivery dates).

- do not refer to the fact that Portsmouth Water's customers are now forecast to benefit from the reservoir, and so therefore, may need to contribute towards the funding; and
- allow Portsmouth Water a company-specific uplift on the allowed cost of debt associated with the reservoir

4.3 Our response

Cost allowance

We understand that Portsmouth Water is in the process of developing an updated set of cost estimates for Havant Thicket for submission to Ofwat. Our understanding is that this submission will take place significantly after the PR24 draft determination consultation response date, making it highly unlikely that Ofwat will be able to reflect this latest view of costs in the PR24 final determinations.

Therefore, in-period cost adjustment mechanisms will need to be developed. We understand that the size of the cost increase is material. Therefore, there will need to be adjustments to allowed revenues during AMP8 as the increase in costs relative to the PR19 assumptions will be too material to reasonably bear without additional revenue. The in-period adjustments should be back-to-back – i.e., an adjustment to Portsmouth Water's cost allowance should be mechanically reflected in Southern Water's revenue allowance so that Southern Water can pass through the revenues received from our customers to Portsmouth.

Outcome Delivery Incentive

At PR19, the ODI level was calibrated to align to annual return on capital and RCV run-off associated with the reservoir. Due to the major increase in the cost of the reservoir, the incentive will need to be adjusted to maintain equivalent strength. The delivery dates associated with the ODI will also need to be updated. We suggest that this is updated at the same time that Ofwat reviews Portsmouth Water's updated cost request.

Cross subsidy

The WRMP24 (situation four) shows from 2040 onwards Portsmouth Water will require significant volumes of water from the reservoir to supply its own customers. As such, Portsmouth Water's customers will need to provide a contribution to the costs of the reservoir, otherwise this would have the effect of Southern Water's customers providing a cross subsidy to Portsmouth Water's customer base.

In order to address this, Ofwat would need to change its approach to the Portsmouth Water price control – i.e., not set the controls as a net zero position and allow Portsmouth to recover an appropriate amount from its own customers.

Company specific uplift

At PR19, Ofwat set a 10-year control for Havant Thicket reservoir. As part of this control, Ofwat used the industry wide WACC. In the draft determination, Ofwat has allowed Portsmouth Water the industry allowed cost of capital plus a company-specific uplift for a higher cost of debt. Ofwat's reasoning for this additional allowance relates to Portsmouth Water's specific financing challenges, and the fact the investment is atypically associated with a single source of demand.

On the first point, setting Portsmouth Water a higher cost of capital than the rest of the industry for the delivery of the project may indicate that it is a size effect produced by the relatively small size of Portsmouth relative to the scale of the project being delivered by them. Our customers may be paying more because of PW's size.

On the second point, it should be noted that Portsmouth Water will be earning a water trading incentive, i.e., an economic profit. Part of the rationale for water trading incentives is to remunerate companies with the risks associated with bulk supplies. Under the Bulk Supply Agreement in place with Southern Water, Portsmouth Water is set to make significant additional returns through the economic profits earned through the water trading incentives which could potentially cover higher debt costs.

Portsmouth’s RoRE analysis in its plan shows it considered Havant Thicket to be lower risk (i.e., lower RoRE range than its core business and most of this risk is driven by totex, not financing costs.



The three return components of the cost of the reservoir (industry WACC, company specific uplift for debt cost and economic profit) will generate a higher income for Portsmouth because of the large increase in costs and hence RCV since PR19. All these increases will be paid for by our customers, and we are becoming concerned that Portsmouth lacks sufficient incentive to control costs.

5. Business Plan Dependencies

This document is supported by our **SRN29 Water Resources Strategic Water Resource Options (SROs)** enhancement case submitted in October 2023.

Data Tables impacted by the representation:

Table/s Impacted	Data Lines Impacted
CW8	24 - Import: Havant Thicket - [redacted] direct raw water transfer (90MI/d) 30 - New Reservoir - SESRO 150Mm3 (SWS: 30%) 31- T2ST Potable resource: Crabwood to Yew Hill
CW8 AMP9 and DPC	45 - Recycling: Recharge of Havant Thicket reservoir from Budds Farm and new WRP (60MI/d) 73 - T2ST Sparsholt to Crabwood to Yew Hill
CW3	56/57/58 - Strategic regional resource solutions; SDB

All documents and tables referenced above can be found on our website here: [Business Plan 2025-30 - Southern Water](#)

6. Appendix

6.1 Section 1

Appendix A – Letter from RAPID Re Land Purchase



Centre City Tower, 7 Hill Street, Birmingham B5 4UA
11 Westferry Circus, Canary Wharf, London E14 4HD

By email

25 May 2023

Dear ACWG

Land and Property Purchase Costs

We have received some enquiries from solution teams regarding land and property purchase costs. For the avoidance of doubt across all solutions, we have set out the position below.

As set out in the [RAPID Gate Three guidance](#), the gate three and four allowances do not include funding for land acquisition. Landowner compensation payments associated with site access for surveys is recoverable within the gate three allowance.

This was also the position set out in the [PR19 Final determinations](#). We maintain the four gates within 2020-25, with the possibility of a fifth (if necessary) in 2025-30. Gate five activities may only be necessary for solutions requiring development consent orders and significant land purchase. As at PR19 draft determination, the first two gates are mostly for desk-based investigations and design work, and the second two for site investigations, DCO and planning applications.

Spend on land acquisition ahead of the 2025-30 period will be subject to the application of transition funding and is potentially recoverable in this way. The criteria for transition funding is set out in [PR24 Final Methodology - Appendix 9 Setting expenditure allowances - Ofwat](#) and you need to ensure you meet this criteria. Where you are confident that the project is included in final Water Resource Management Plans and you meet the transition funding criteria, this reduces the risk associated with your expenditure on land acquisition in advance of planning and other statutory consents for SROs being obtained.


We would emphasise the need for you to focus on delivery of efficient outcomes as this will be a consideration in determining any costs and corresponding efficiency assessment. For instance, entering into option agreements rather than outright purchases may be a more efficient way of managing land acquisition risks.

We consider that transition funding and the PR24 process provides companies with an appropriate route to recover the efficient costs of acquiring relevant land rights for delivering SROs including entering into option agreements to purchase land in the future. We consider this approach is in line with the DCO, planning application and compulsory purchase processes and we do not see a case where properly substantiated, efficient land costs would be unrecoverable at PR24.

We encourage companies to work together to use a consistent approach to property purchase, including option fees and land valuation principles.

If you have any concerns, please write to us formally to set out your concerns.

Yours sincerely


Director – RAPID

Appendix B – HWTWRP Jacobs Assurance letter for RAPID Gate 3 submission

Jacobs

Challenging today.
Reinventing tomorrow.

4th Floor, Cottons Centre
Cottons Lane
London, SE1 2QG
United Kingdom

www.jacobs.com

4 July 2024

Attn: FAO Southern Water Board and Portsmouth Water Board

Project name: Gate 3 Assurance of the Water for Life Hampshire Strategic Resource Option
Project no: B2430114

Subject: Independent Technical Assurance Statement

Jacobs has been appointed by Southern Water Services (and on behalf of Portsmouth Water) to provide independent technical assurance of the Hampshire Water Transfer and Water Recycling Project Strategic Resource Option (SRO) gate 3 submission to the Regulators Alliance for Progressing Infrastructure Development (RAPID).

The assurance included separate strategic reviews of chapters 2 through 10 for the RAPID gate 3 submission as prepared by Southern Water and, where input required, Portsmouth Water. Assurance was completed against test criteria based upon the RAPID gate 3 guidance document (published August 2023 and updated January 2024) and the gate 2 decision actions (non-priority actions and recommendations). In addition, technical assurance was completed on chapters 6 (Programme and Planning) and 8 (Solution Costs and Benefits) checking source documents and evidence behind statements and figures presented within these chapters. These technical assurance activities were completed where a higher degree of risk had been identified by Southern Water and Portsmouth Water and cross-checked a sample selection of information and data within the two chapters.

Assurance of individual chapters took place between November 2023 and February 2024, including the supporting annexes to the submission. The assurance reviewed the completeness, consistency and content against the requirements. In addition, reviews against the breadth and comprehensiveness of activities were incorporated with consideration of progress towards completion. The assurance also considered the appropriateness of specific activities to address risks or issues associated with the solution development. An assurance review of the whole submission was completed in March 2024 with project completion on the 20 March 2024.

The assurance included liaison with both Southern Water and Portsmouth Water as the delivery of this SRO involves both parties and Board statements are required from each company for the gate 3 submission. Both Southern Water and Portsmouth Water received feedback on the assurance findings in order to support the Board statements made.

Jacobs concludes that Southern Water and Portsmouth Water have taken appropriate steps towards meeting the RAPID guidance requirements across all chapters submitted. There is evidence of effective collaboration between Southern Water and Portsmouth Water in the progression of this strategic resource scheme. By the end of the assurance review Jacobs concludes that there were low to medium risk actions remaining that were considered modest and opportunities for improvement. There was limited evidence to show that these remaining actions would negatively affect the alignment of works between Southern Water and Portsmouth Water. We observed that the two companies were sufficiently engaged to maintain alignment.

For the overall conclusion on the gate 3 submission chapters and associated annexes reviewed, Jacobs consider for our third line assurance:

- The submission by Southern Water and Portsmouth Water demonstrates that the companies have developed and put in place a challenging but realistic and achievable programme for the solution.
- There are no insurmountable obstacles to the delivery of the solution identified at the time of the assurance review, based on submission contents assessed as part of the assurance. Jacobs note that there are a number of planning steps and third parties which could influence delivery going forward.
- Progress on the solution at gate three is evidenced and in accordance with the solution programme and commensurate with the solution being 'construction ready' in the 2025- 2030 period.
- The companies have evidenced that, where appropriate, they have identified significant risks to the delivery of the solution in accordance with the programme and within current cost projections. Mitigating actions to manage risks have generally been included within the programme for the solution delivery.
- The submission assured at gate three gives evidence that work ongoing under the programme is of sufficient scope, detail and quality to be able to support applications made for development consent orders, planning applications and other necessary statutory consents and permits.
- Based on evidence viewed as part of the gate three submission assurance, expenditure is being monitored and has been incurred only on activities that are appropriate for gate three.

Your sincerely,
[Redacted]
Head of Water Strategy and Regulation
[Redacted]

Appendix C – T2ST Priority Action Gate 3 breakdown

Category	Forecast to Checkpoint 1	Forecast to Checkpoint 2	Forecast to Gate 3	Total Gate 3
	(2017/18 prices)			
1. Programme and Project Management	£442,133	£1,182,619	£6,853,027	£8,477,779
2. Finalised Feasibility and Developed Design	£263,195	£691,314	£6,439,741	£7,394,250
3. Environmental Assessment	£213,887	£12,917	£5,807,195	£6,033,999
4. Data Collection, Sampling, and Pilot Trials	£37,904	£0	£7,949,828	£7,987,732
5. Commercial and Procurement	£11,104	£203,321	£2,228,072	£2,442,497
6. Planning and Land	£78,414	£106,236	£3,607,842	£3,792,493
7. Stakeholder Engagement	£44,666	£92,380	£445,602	£582,649
8. Legal	£10,044	£196,206	£2,247,304	£2,453,554
9. Other	£0	£103,040	£202,685	£305,725
Forecast Total	£1,101,349	£2,588,034	£35,781,295	£39,470,678
Current RAPID Allowance (2017/18 prices)	£1,899,000	£4,691,000		£6,590,000

As Checkpoint 2 is planned for April 2025, the AMP 8 element of Gate 3 spend is £35.78m (in 2017/18 prices). When indexed for PR24, this becomes £42.88m (22/23 prices).

Appendix D – CIT statement of T2ST Assurance



Thames to Southern Transfer (T2ST)
Cost Assurance Prior to PR24

Project: Thames to Southern Transfer

Our reference: PR24 Assurance Statement 01 **Your reference:** T2ST

Prepared by: [REDACTED] **Date:** 14.06.2024

Checked by: [REDACTED] **Approved by:** [REDACTED]
(SWS – Project Manager)

Subject: Comment on Assurance Undertaken on the Post Gate 2 Estimate Which Underpins the PR24 Draft Submission

1 T2ST Assurance Statement

In response to Southern Water's request for an Update on the Assurance Statement of the T2ST Cost & Carbon Estimate the following draft statement has been prepared for discussion

Statement relating to the assurance process undertaken for the Thames to Southern Transfer SRO project (T2ST) in relation to the Gate 2 Estimate and the PR24 Draft Determination value

The Thames to Southern Transfer project has currently been through two RAPID Gateway stages. Gate 1 and Gate 2.

The Gate 2 submission was November 2022.

The scheme options submitted at Gate 2 were Options B & C at 50, 80 & 120 MLD.

The Cost and Carbon estimates included with the Gate 2 submission were independently assured by Jacobs led by [REDACTED] who has undertaken independent reviews on several of the SRO projects across the sector and sits on the All Company Working Group (ACWG). This resulted in the production of the cost and carbon report which once assured, fed into the chapter 8 "solution costs and benefits" within the Gate 2 report to RAPID.

Following the T2ST Gate 2 submission in November 2022, the WRSE draft regional plan confirmed the preferred flow rate for T2ST is 120 MLD. The Option C estimate is marginally higher than Option B, and hence Option C at 120 MLD has been used for the PR24 submission.

The Gate 2 submitted cost for Option C 120 MLD was £877.2 million. CAPEX indexed to 2020/21

Since the Gate 2 submission the Option C estimate at 120 MLD was updated to include the Kennet Valley Spur increasing the cost to £890.6 million. CAPEX. The Kennet Valley spur cost is common to Option C and B; hence Option C remains as the higher cost option.

A further re-indexation to 2022/23 currently has the Option C 120MLD estimate including the Kennet Valley spur at £1.001 Billion. CAPEX. The Overall CAPEX sum includes Risk at a sum of £166.0m and Optimism

We understand that the estimate value which underpins the PR24 submission for this project is £994 million. This is due to the systemisation process deployed by [REDACTED] having the effect of reducing the indirect costs. The statement CIT issued previously on this is... "Following the Gate 2 submission of the Thames to Southern Transfer SRO Project, Southern Water's submission for PR24 took a consistent view on indirect costs across the whole suite of projects in the AMP8 programme. Thus, the PR24 value for T2ST is slightly lower than the Gate 2 submission. This will be reviewed and updated as part of the Gate 3 checkpoint 2 exercise to be undertaken in 2025."



Due to the size and complexity of the SRO projects any reduction to the indirect costs at this stage is not supported by CIT and is seen as a potential threat to affordability.

Due to the design being at concept stage and the level of work undertaken to date (which is more detailed than would normally be expected at this stage in the project lifecycle) there is limited scope to further improve the confidence level of the cost & carbon estimate (AACE Class 4 +50% / -20%) until the next design update. This along with the production of a programme and phasing plan and engagement with the market should increase levels of cost confidence. The current level of confidence aligns to the other SRO's at their current stage of development.



Appendix E – Confirmation of T2ST Gate 3 cost estimate, Priority Action closure

T2ST Gate 2 Priority action completion

 
① This sender is from outside your organization.
① You replied to this message on 23/04/2024 09:10.


Hi All,
Thank you for submitting and talking through the evidence against the priority action listed below. We've reviewed the information you provided and are happy to close on the priority action.

T2ST Gate 2 Priority actions

Priority Actions – to be addressed by the date specified against each priority action			
1	Evidence of efficient spend	Please provide a bottom-up analysis of forecast development spend for gate three by 4 August 2023 to RAPID.	Complete

Please accept my thanks for your email in advance – each UK adult sending one less 'thank you' email a day would save more than 16,400 tonnes of carbon a year.

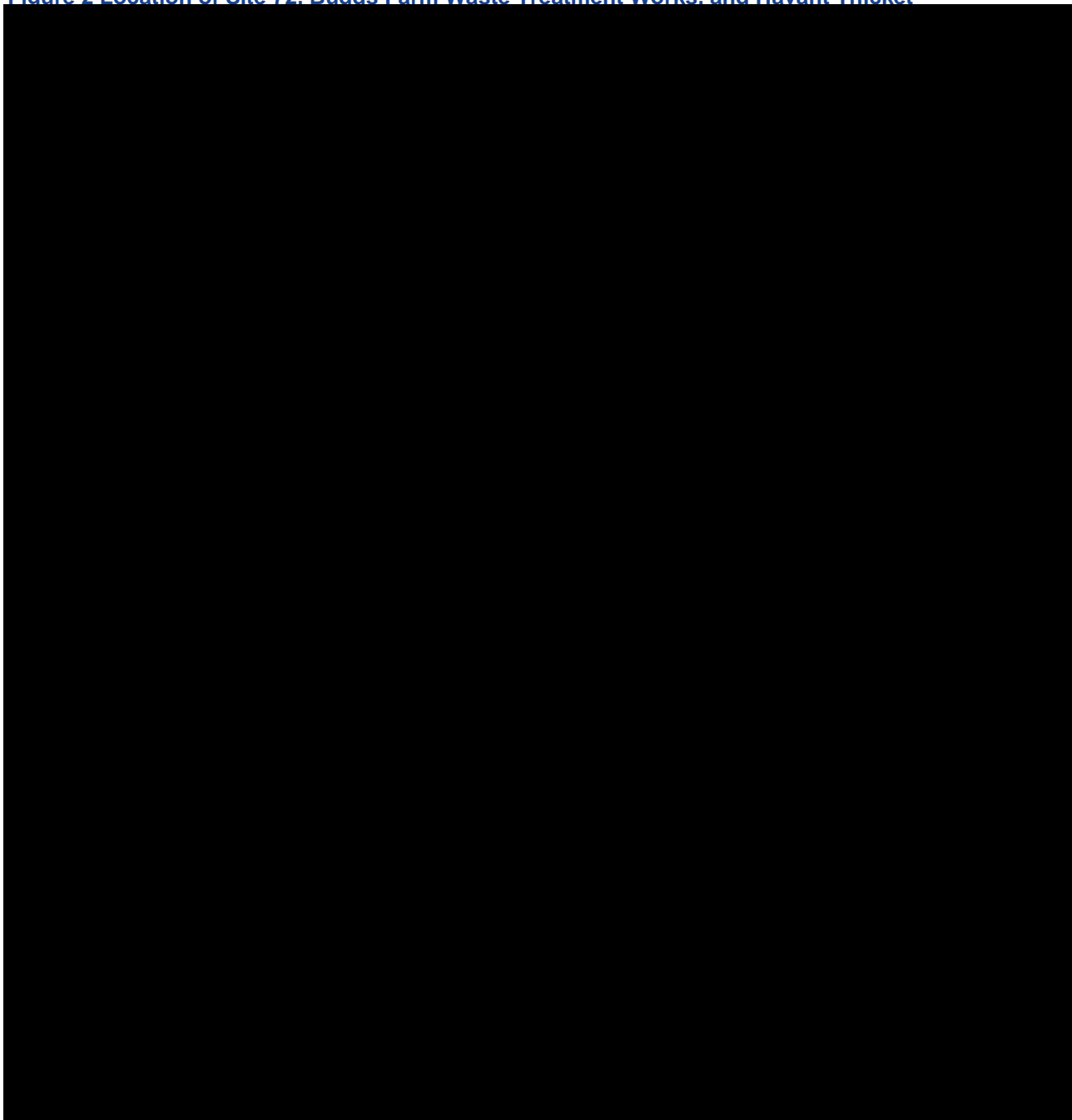
Kind regards


Ofwat, Centre City Tower, 7 Hill Street, Birmingham. B5 4JA
ofwat.gov.uk
Follow us at: twitter.com/ofwat

6.2 Section 2

Supporting information 1: Location of Site 72

Figure 2 Location of Site 72, Budds Farm Waste Treatment Works, and Havant Thicket



Supporting information 2: Completion statement for purchase



COMPLETION STATEMENT

Sale Land on the [Redacted]

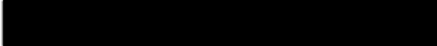
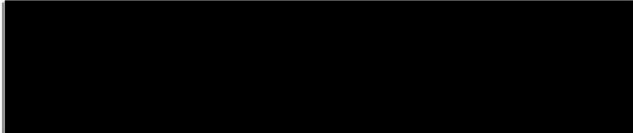
Seller: [Redacted]

Buyer: Southern Water Services Limited

Completion Date: 30th April 2024

Price	£
VAT (Price)	14,500,000.00
Total:	2,900,000.00
<i>Less</i>	
Deposit received	1,450,000.00
VAT (Deposit) received	290,000.00
Total:	(1,740,000.00)
Total to send to [Redacted] on Completion:	<u>15,660,000.00</u>

Please remit funds to:



Supporting information 3: Calculation of Stamp Duty.



Stamp Duty Land Tax Calculator

Summary

Freehold or leasehold	Freehold
Residential or non-residential	Non-residential
Effective date of transaction	30 April 2024
Purchase price	£17,400,000

Results based on SDLT rules from 17 March 2016

Result of SDLT calculation

Effective date	30 April 2024
Purchase price (£)	17,400,000
Total SDLT due (£)	859,500

Results based on SDLT rules before 17 March 2016

You may be entitled to pay SDLT using the old rules if you exchanged contracts before 17 March 2016.

Result of SDLT calculation

Effective date	30 April 2024
Purchase price (£)	17,400,000
Percentage rate (%)	4
Total SDLT due (£)	696,000



Supporting information 4: Land agent's report

Extracted from "Acquisition Recommendations Report, prepared for Southern Water by [REDACTED], 3
May 2022.

[REDACTED] – Appraisal Precipis

As you will appreciate from the above market conditions, we are currently experiencing exceptional strong demand from the industrial and logistics sector coupled with a market showing rental increases and yield compression. This yield compression is exacerbated by the weight of money that is currently allocated to be invested in the logistics sector.

Investors are increasingly looking to secure positions on development opportunities by way of forward funding agreements. Whereas the more conservative are looking to acquire the completed investments but are securing these on the lowest yields ever witnessed in the sector.

As a consequence, we have made some assessments in relation to rental level, assumed rental growth and current yields in appraising the value of the subject site to the developers. We have undertaken two site appraisals upon the basis of a forward funding relating to a two unit scheme and a single unit scheme on the subject site.

We believe that the two-unit scheme is a more likely outcome and we have assessed it upon the following:

Unit 1	185,970 sq. ft
Unit 2	115,260 sq. ft
Total GIA	301,230 sq. ft

Alternatively, we considered a single unit scheme providing a unit of gross internal floor area providing 305,600 sq. ft.

The full appraisals are at Appendix 1.

As you will see from the development appraisals, we have had to make assumptions in relation to construction costs. The construction costs have been sense checked through discussions with developers with whom we are working currently and also upon developments that we have also been directly involved with. Clearly there could be some margin of error in relation to this number dependent upon the ongoing price rises in construction materials but nevertheless we believe this number is robust.

In relation to rental level, we have assessed recent transactions and also made assumptions in relation to rental growth in accordance with the projections provided earlier within this correspondence.

In relation to recent lease comparables these include the following:

Location	Tenant	Size	Rent
Jays Close, Basingstoke	Leverton Lyceum	93,791 sq. ft	£11.25
Horley Lane, Farnborough	DFS	168,026 sq. ft	£12.50
Avalon, Parham Drive, Beestley	Garmin	100,206 sq. ft	£8.00
Test Lane, Southampton	Hermes	118,257 sq. ft	£9.65

As a consequence of the above evidence, we have assessed the rental level in relation to these proposed units at £10.50 per sq ft utilising current rental levels. However, we have also undertaken a projection whereby the developer anticipating levels of demand and escalating costs could secure a rent in the region of £12.00 per sq ft.

A brief precis of the appraisals (which have been rounded for ease of reporting) are as follows which reflect the advice above in relation to market yields and demand.

Description	Base rent (per sqft)	Residual land value	Profit	Total
Single unit scheme	£10.50	£24,911,001	£12,835,200	£37,746,201
2 unit scheme	£10.50	£24,554,950	£12,651,660	£37,206,610
Single unit scheme	£12.00	£31,421,531	£14,668,800	£46,090,331
2 unit scheme	£12.00	£30,972,381	£14,459,040	£45,431,421

In addition, the landowners will want to recoup incurred costs including; planning, architects, legal costs, ecological, geotechnical et cetera which could easily run to £500,000. Also, within the appraisals reference is made to professional costs – of these the developer would probably take on the project management role which would be in the order of 2% of the development costs, equating to a further £400,000.

As you will see from the information provided the levels of profit and land value are significant. Allowance needs to be made in respect of recouping costs and also the intangible benefit to the owners of undertaking the development, which would come down to negotiation.

As a consequence, we would suggest that the purchase could be in the region of £45,000,000 to £50,000,000 plus VAT.