



Water Industry Commission Scotland
**ENGINEERING REVIEW OF SCOTTISH
WATER'S SRC27 DRAFT BUSINESS
PLAN**

Project Report

September 2025

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Executive summary

WSP was commissioned by the Water Industry Commission for Scotland (WICS) to undertake a technical engineering review of Scottish Water's draft business plan for the 2027–2033 regulatory period (SRC27). The review focused on evaluating the scope, cost, and methodology of selected investment programmes and projects, as well as Scottish Water's approach to overheads and risk allowances.

Client Scope

The scope of the review was defined by WICS and included:

- Two investment programmes: Internal Sewer Flooding and Maintaining Treated Water Storage.
- Two capital projects: Black Esk Water Treatment Works and North Berwick Wastewater Treatment Works.
- A cross-cutting assessment of Scottish Water's overheads and benchmarking methodology.

These areas were selected due to their strategic importance and materiality within the SRC27 business plan.

Work Undertaken and Methodology

WSP applied a structured methodology combining:

- Detailed document review, including business case submissions, technical appendices, and investment appraisals.
- Interviews and Requests for Information (RFIs) with Scottish Water.
- Benchmarking against industry standards and comparator utilities.
- Cost and carbon analysis, risk assessment, and evaluation of delivery models.

Each programme and project were assessed for:

- Alignment with strategic and regulatory outcomes.
- Appropriateness of scope and solution optioneering.
- Cost effectiveness and unit rate benchmarking.
- Risk tolerance and investment prioritisation.

High-Level Conclusions

Internal Sewer Flooding Programme: SW has a mature process for prioritising and delivering flood mitigation. Lower-cost projects offer good value, but higher-cost schemes (>£2M) show elevated unit rates and require further scrutiny. Multi-driver projects lack transparency in cost allocation which should be explored further between now and the final submission.

Maintaining Treated Water Storage Programme: The programme responds to DWQR enforcement but uses high-level costing with limited optimisation. Unit rates for refurbishment and replacement are significantly above industry benchmarks. A potential cost challenge of £100M (~30%) has been identified, further evidence of the reasons for a higher unit rate in comparison to the benchmark and more granular costing may erode this cost challenge.

Black Esk WTW: The preferred solution (new WTW with ceramic membrane filtration) is technically sound and aligned with strategic needs. However, cost escalation between appraisal stages and lack of transparency in carbon assessment warrant further investigation.

North Berwick WwTW: The selected Nereda technology is appropriate and offers flexibility. However, high infiltration rates may have led to over-scoping.



Overheads and Benchmarking: Scottish Water’s benchmarking shows directional alignment but lacks robustness in cost taxonomy and risk exclusion. Client overheads are significantly above industry norms, while contractor costs are lower. A cost challenge of £8 million to £26 million, with recommendations for clearer cost categorisation and inclusion of risk costs.

The following table sets out WSPs key observations and recommendations.

Area of Review	WSP Observations	Recommendations
Internal Sewer Flooding Programme	SW has a mature process for prioritising and delivering projects. Lower-cost projects offer good value, but high-cost projects (>£2M) show disproportionately high unit rates. Some projects include multiple drivers beyond flooding.	WICS should scrutinise high-cost projects for value justification and ensure cost drivers are clearly separated. Recommend benchmarking unit rates and evaluating indirect costs in early project stages.
Maintaining Water Storage Programme	Programme addresses DWQR requirements but uses a high-level costing approach with limited optimisation. Unit rates for replacement are significantly above industry benchmarks.	Recommend SW provide more granular cost breakdowns and explore optimisation opportunities. WICS should challenge the 80/20 refurb/replacement split and validate condition grade assumptions.
Black Esk WTW	The preferred solution (new WTW with ceramic membrane filtration) is technically sound and aligned with strategic needs. However, cost escalation between appraisal stages and lack of transparency in carbon assessment warrant further investigation but are not thought to offer opportunity for cost challenge due to the maturity of the scope and costings provided by contractors at the design stage.	<p>The cost escalation can be explained by a change in scope to achieve compliance attributed to needing 2 more filters at £5.7M. A further £8M due to “immature scope” for MEICA packages and £14M for costs of dealing with contaminated land. This suggests there was not enough risk or optimism bias allowance previously. Stage 4 decision paper shows less than 4% risk allowance.</p> <p>Our evaluation of the incremental cost for filters indicates that both the necessity and associated expenses are justified, and do not warrant a cost challenge. At this stage, we have not been able to clarify the additional expenditures related to MEICA or contaminated land elements. These particular costs remain subject to review, as it is unclear whether risk provisions from the original scope have contributed to the increase. While benchmarking these costs has proved</p>

Area of Review	WSP Observations	Recommendations
		<p>challenging, we believe there remains an opportunity to scrutinise and potentially contest them.</p>
<p>North Berwick WwTW</p>	<p>The preferred option (Option C3 with Nereda technology) is appropriate for current effluent targets and offers flexibility for future changes. However, high infiltration rates may have led to over-scoping. Cost estimates are immature, and optimism bias is low.</p>	<p>Recommend reassessing infiltration impacts and scope sizing. Further refinement of the cost models, greater clarity on risk allowances, and enhanced benchmarking using comparable historic projects would strengthen confidence in the investment decisions and ensure long-term value.</p> <p>Nonetheless, the current option delivers a sound, pragmatic response to immediate regulatory and environmental requirements and positions North Berwick for sustainable future development.</p>
<p>Overheads</p>	<p>Scottish Water’s benchmarking of indirect and on-cost levels shows directional alignment but lacks robustness in cost taxonomy, risk exclusion, and statistical significance. Client overheads are significantly above industry norms, while contractor costs are lower.</p>	<p>WICS should challenge the £inG methodology, particularly around client overheads, risk costs, and cost categorisation. Recommend clearer taxonomy and inclusion of risk costs for accurate efficiency assessment.</p>

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