

North Suffolk Winter Storage Reservoir -Assurance Report

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Northumbrian Water

North Suffolk Winter Storage Reservoir Scheme - Annual Performance Review Progress Assurance



North Suffolk Winter Storage Reservoir Scheme – Assurance Report

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The conclusions in the Report titled **Assurance of North Suffolk Winter Storage Reservoir** are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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1. Summary and overall feedback against Price Control Deliverables and Programme

Stantec were asked to provide an independent assurance report for the North Suffolk Winter Storage Reservoir Project (further referred to as North Suffolk Reservoir).

Price Control Deliverables (PCDs)

Based on the information that we have seen, our assurance indicates that the price control deliverables (PCDs) associated with the accelerated delivery of the North Suffolk Reservoir detailed design scheme for March 2025 **have not been met.**

The accelerated funding allocation from Ofwat was provided to Northumbrian Water (NWG) to accelerate the detailed design of the North Suffolk Reservoir to facilitate an earlier decision with regards to how Lowestoft Reuse project and the reservoir should progress.

The identification of an error in the assumptions used to estimate the required size of the reservoir has led to a change in the scope for the concept design. The change in size requirement of the reservoir is well-evidenced and explains much of the delay in delivering the PCDs. The current programme to deliver the concept design has progressed from the previous year and has been developed to take account of further requirements which have emerged as a result from the change in scope, for example, progression through the DCO process instead of the original TCPA route.

Despite requests, we have not seen any correspondence between NWG and Ofwat indicating or agreeing the significant change to the proposed size of the reservoir, nor the change to envisaged benefits and timeline, and PCDs associated with the project.

Programme Feedback

The current programme to deliver the concept design has progressed from the previous year, however, there are several fundamental outstanding decisions, which have the potential to impact on the delivery timescales of the reservoir.

The evidence we have seen demonstrates that NWG is currently proceeding on the assumption that a 30,000 MI reservoir will be needed, however, the final decision on the size of the reservoir is planned for April 2027, according to the Long-Term Delivery Strategy¹ and confirmed through discussion with the WRMP team. The current programme is based on several significant assumptions, e.g. reservoir size, which introduces large uncertainty into the programme, and other integrated aspects – such as the integration with Lowestoft, the need for a wetland and site selection. From discussion we understand that NWG is anticipating further abstraction limitations which may impact the size of the WRMP24 deficit and thus impact on the scheme.

There is currently very little contingency set out in the programme we have seen², which increases the risk of delays. The additional uncertainty around material decisions further exacerbates this risk. It would be beneficial to provide greater certainty where possible in the programme, by bringing forward key decisions where practicable. Specifically with regard to the size of the reservoir, the required deployable output, the integration with Lowestoft and the inclusion (or not) of a wetland. Where NWG need to manage uncertainty, we would suggest identifying a few key scenarios that enable the

¹ Shaping our future: Our Long-term strategy 2025-50, Northumbrian Water, Essex & Suffolk Water, October 2023.

² North Suffolk Winter Storage Programme detailed view, Jacobs 2025



scheme to meaningfully progress whilst retaining the ability to adapt to future decisions. This will facilitate earlier, more meaningful engagement with stakeholders and support integrated aspects of the design.

From the start of the 2025-30 period the project will progress through the RAPID gated process. We note that gate one submissions will require cost estimates and demonstration of efficient expenditure. We have not seen any evidence of costs, and this has not formed part of our assurance, however, early decisions where possible will help support this submission so that costs and benefits can be more realistically estimated.

2. Background

NWG's Water Resource Management Plan (WRMP24) identified an aggregate, baseline water supply/demand deficit across its three Water Resource Zones (WRZs) in Suffolk from 2025 onwards. The best value plan, developed as part of the WRMP24, was a proposal including three strategic schemes, operating together, to mitigate the deficit and ensure resilient supplies over the planning horizon. These three schemes are (i) North Suffolk Reservoir, (ii) Lowestoft Reuse, and (iii) Suffolk Strategic Network and Storage pipeline schemes.

NWG submitted a proposal under Ofwat's accelerated infrastructure delivery programme, to bring forward expenditure for all three of these schemes. The company's final WRMP24³ sets out the adaptive pathway for North Suffolk Reservoir; under the best value plan the reservoir has an operational date of 2040/41 (Lowestoft Reuse operational by 2032), whereas, under the adaptive pathway the reservoir is operational by 2035, and Lowestoft by 2040.

Completion of either scheme (Lowestoft or North Suffolk Reservoir) will allow the current moratorium on new nonhousehold demand in Hartismere WRZ to be lifted. Based on the pressures on supply/demand and further abstraction limitations driven by abstraction sustainability reductions and habitat regulations, both schemes will be required in the future. As such, accelerated delivery will enable the optimum pathway to be established sooner than would otherwise be the case.

In the company's response to Ofwat's accelerated infrastructure delivery programme draft determination, it explained that accelerated funding is expected to bring forward option delivery for all three schemes by 22 months, so that the reuse scheme would be operational by 2030 and the North Suffolk Reservoir by 2033. In June 2023, Ofwat allowed NWG to accelerate work to progress detailed design work on all three schemes with accompanying price control deliverables (PCDs)

The associated PCDs commits NWG to the option development work and includes a break point should the final WRMP not support these options. The output measuring and reporting requirements for the North Suffolk Reservoir scheme are set out by Ofwat in Section 2.2, Page 16 of the publication: Accelerated infrastructure delivery project Appendix 2: price control' (Ofwat, June 2023)⁴. The relevant extract is provided below.

"By 31 March 2025 the company will have completed the following activities:

- On-site hydraulics and topographical surveys;
- Geotechnical investigation reports;
- On-site ecological and archaeological surveys (50%); Network Rail UTX Designs;

 ³ Essex & Suffolk Water, Water Resources Management Plan 2024, Northumbrian Water, October 2024
 ⁴ Appendix 2: Accelerated Delivery Project Final Decisions, Ofwat, 2023.



- 60% of the work required on undertaking formal Environmental Impact Assessments (EIA) and preparing environmental statements for planning approval;
- Land agreements (as appropriate).

Detailed design of North Suffolk Reservoir is for a scheme which will deliver 16.2 Ml/d water available for use (WAFU) gain for the Northern Central WRZ under a 1-in-500 year drought scenario.

Delivery of the outputs will be reported and monitored through the existing APR process."

Ofwat Conditions on the scheme are set out as:

"There is a general expectation that all PR19 funded benefits to meet the supply demand balance will be delivered on time. The company should remain on track to deliver its PR19 water enhancement programme in full. The updated timing of the benefits of this scheme (WAFU) should be consistently taken account of in the company's final WRMP24. Funding is contingent on the continued inclusion of the components of this scheme in future iterations of the company's WRMP. Should any components of this scheme be excluded from future WRMPs the company should cease work on those elements immediately and no further work will be funded."

3. Our Assurance Approach

Stantec were asked to provide an independent assurance report for the North Suffolk Reservoir Project. The report was to cover feedback on the methodology proposed to report progress against the price control deliverables (PCDs) set out in Appendix 2 of the Accelerated Delivery Project Final Decisions, and further to provide reasonable assurance of the current project programme⁵. The final report needed to be submitted by 13 June 2025, to enable inclusion and commentary in NWG's annual performance report (to be submitted to Ofwat by 15 July 2025). This revised final report is being submitted on 27 June 2025 to include the consideration of comments raised by the project team.

There has been a significant change to the proposed size of the North Suffolk Reservoir over the 2024-25 financial year and the programme has adapted to accommodate this change. Our assurance has sought to evidence the need for this change and the impact on future deliverables and associated risk. We note that following the PR24 Final Determination, the project is now included in the major projects portfolio and from April 2025 will proceed through the RAPID gated process⁶. Correspondence between Ofwat and NWG has set out that PR24 reporting requirements (for the 2025-30 period) will supersede those set out in the Appendix 2 of the Accelerated Delivery Project Final Decisions.

We have not seen any correspondence between NWG and Ofwat indicating or agreeing the significant change to the proposed size of the reservoir, nor the change to envisaged benefits, timeline, and PCDs associated with the project.

Our assurance approach is set out in Figure 1. An initial meeting with the project team helped us to understand the development of the project to date and allowed us to identify the key documents needed to verify the change in size of the reservoir. Supporting documentation and evidence was provided by the project team where requested. We undertook desktop reviews of documentation and outputs where available. Our review of the programme included a check of dates, dependencies to identify any concerns with allocated task durations and sequencing. We further used subject matter experts to compare timescales and activities to other projects of similar size and requirements. We conducted a high-level review of the proposed APR methodology, to provide feedback on the limitations and assumptions required by such an approach.

⁵ North Suffolk Winter Storage Programme detailed view, Jacobs, May 2025

⁶ PR24 Final Determinations: Major projects development and delivery, Ofwat, February 2025.



Figure 1: Assurance approach

	Assurance activity	Assurance checks
Stage 1	 Face-to-face session with the project team to provide an overview of the project to date Identified relevant documents referred to in the programme to be shared for review 	 Evidence the narrative, including the change in scope of project
Stage 2	 Assessed the programme and documentation with relevant SME's to: Identify any gaps/missing activities or steps Identify key programme risks and impacts Provide forward view of the programme 	 Comparison of programme steps and timelines to other projects of similar scale and nature Demonstration of how risks are managed and mitigated.
Stage 3	High-level review of proposed APR methodology to report against Appendix 2 deliverables.	 The assumptions are accurate and sensible The limitations of the approach Identify any improvements

4. **Progress against Price-Control Deliverables (PCDs)**

4.1 Reporting on progress against the PCD (Appendix 2)

The company's proposed methodology to report progress against the milestones set out in Appendix 2 is to calculate the time spent on specific activities in the programme and to compare this against the total projected duration. This would be considered alongside progress made on critical deliverables. We have not seen a detailed methodology, worked through examples, nor the proposed percentage that the company intends to submit as part of the APR. Our feedback is based on the high-level methodology provided.

The proposed approach enables a percentage completion to be calculated consistently across each output measurement and captures the work/time which has been input towards the deliverables. This methodology assumes that:

- (i) The estimated time required for each task is accurate and not dependent on exogenous factors,
- (ii) Tasks can be accurately mapped to the deliverables in Appendix 2,
- (iii) Delays, which lead to tasks taking longer, are accounted for in this calculation.

The key limitation of this approach is that it monitors the inputs into activities, whereas the price control deliverables set out by Ofwat are designed to capture progress against the outputs. There is also the risk that if some tasks take longer/less time than anticipated, the project will appear less/more progressed than it is. There is a large risk of subjectivity in this approach, and as such, our recommendation would be that a simpler approach is adopted.



We suggest an alternative approach would be to report progress against the interim deliverables of the relevant outputs. This would enable the focus to remain on outputs and could be robustly audited.

4.2 Impacts on WRMP24

The North Suffolk Reservoir scheme forms part of the company's final WRMP24 to support deficits across the Suffolk area by distributing the water via the new strategic grid. The best value plan identifies the reservoir as the preferred option to meet the deficit, providing between 16.2 - 19.9 Ml/d deployable output (DO). Subsequent water resources modelling has found that the reservoir will need to be much larger than assumed in the WRMP (originally between 3500 Ml to 7000 Ml) in order to deliver the required benefit. We have not seen the model, its results or report but understand that a 20,000 - 25,000 Ml capacity reservoir would be required to provide the required DO⁷. The NWG water resources team has indicated that the required DO is between 20 - 51 Ml/d depending on the considered scenario.

The project team have been instructed to proceed with a reservoir of 30,000 MI capacity⁷. The instruction document sets out that the target 25 MI/d yield is to provide flexibility so that "the yield may be increased or decreased based on evolving operational requirements or strategic objectives". The note indicates that 20 MI/d will be sourced from the river Waveney with an additional yield of 5 MI/d that could be provided for in the future if abstraction from the River Hundred is included. The conjunctive operation of Lowestoft with the reservoir is identified as a possibility with the 'likely outcome' to be Lowestoft directly feeding into the reservoir.

In its WRMP24 NWG has had to extend the moratorium on new non-household demand in its Hartismere WRZ and delayed implementing sustainability reductions until new sources are available in 2032/33. The current programme sees the reservoir delivering benefit from 2040/41.

Following the PR24 Final Determinations, through the 2025-30 period, the project will proceed through the RAPID gated process as a strategic resource option (SRO).

5. **Programme Review**

Our review of the programme⁸ has sought to identify risks, inconsistencies and activity gaps in the planning. We have assessed the current programme against the required deliverables and identified areas of concern that may impact delivery timescales.

5.1 Overall Programme Assessment

Based on our review, the current programme appears optimistic with little allowance for risk and associated contingency time, putting the planned construction commencement in December 2029/January 2030 at risk. Milestones for key deliverables are not well defined and there appears little time allowance for technical and procedural reviews by the client and an independent team of specialists. Similarly, there appears very little time allowance for completing any amendments that may arise from the review processes.

We understand that the project team has engaged with an All Reservoir Panel Engineer and a Supervising Panel Engineer to assist with site selection of the reservoir site. We would anticipate that an independent panel of specialist engineers would be

⁷ Instruction SMI-0006, North Suffolk Winter Storage – Concept Design, Sept 2024

⁸ North Suffolk Winter Storage Programme detailed view, Jacobs, May 2025



appointed to review and support the overall design principles and design development for the reservoir, working with the independent Construction Engineer, as required by the Reservoirs Act 1975.

A concise deliverables schedule would be useful to align with checks and reviews and the parallel consenting programme.

Recommendations

- There are several key uncertainties around the project which will impact the design and development of the reservoir. We would recommend that the company seek to accelerate decisions where possible and practicable, to provide greater certainty in the scoping development of the concept and design.
- Greater certainty over the scheme requirements and design will help to support early stakeholder engagement. We would further recommend the inclusion of Ofwat, DEFRA and the Drinking Water Inspectorate in the engagement plan, as each of these regulators will have decisions and input into the project. Early engagement will mitigate the risk of delays to decisions or unexpected considerations.
- Revision of DCO programme timelines to reflect statutory requirements and commencement of DCO preparation systems and deliverables lists.
- There is currently little contingency time in the programme, and key deliverables within holiday periods. This increases the risk of delays with knock-on impacts. We would recommend planning for worst case scenarios with respect to established SLAs and ensure that adequate review time is given for the approval or acceptance of documents.
- Clear identification of consenting process deliverables and milestones. There are some apparent misalignments between environmental assessment and consultation activities.

5.2 Uncertainty

There remain several fundamental uncertainties related to the required design of the reservoir. These include (a) the size of the reservoir, (b) the required deployable output, (c) the inclusion of reuse from the Lowestoft site, and (d) the inclusion of a wetland as pre—treatment. Each of these will impact the suitability of the site for selection and reservoir design. It is important that these decisions are made efficiently and transparently ahead of the design freeze in 2026. This will enable greater certainty for the EIA to be undertaken.

Priority points

Several documents indicate that Lowestoft recycling is a potential source of water for the reservoir, and we understand from the WRMP24 that the EA has asked the company to explore conjunctive use. The 11 MI/d WAFU from Lowestoft is an integral part of the resource scheme, however, the two projects are running to different timescales, and it is not clear how Lowestoft will interact with the reservoir. The current programme is set out on the basis that the reservoir is a stand-alone project, independent of Lowestoft.

It is noted in several documents that there is the potential for Lowestoft to discharge directly into the reservoir to offer additional resilience^{9,10}. If discharge were to take place directly into the reservoir, provision would need to be made to meet Regulation 15 – New source regulations, such as the use of an environmental buffer, and ensure adequate retention times. These considerations may have a material impact on the site selection and as such, if NWG plans on retaining the option of integrating Lowestoft with the reservoir (when both schemes are complete) decisions should highlight relevant limitations.

5.3 Reservoir site selection

⁹ Essex & Suffolk Water, Water Resources Management Plan 2024, Northumbrian Water, October 2024.

¹⁰ Instruction SMI-0006, North Suffolk Winter Storage – Concept Design, Sept 2024



Mindful of the fundamental uncertainties around the reservoir size, the operational regime of the reservoir over the annual and seasonal cycle of abstraction and supply together with associated overall design requirements, the project team have selected four potential sites for a 30,000 MI reservoir. With regards to being in a position to select a preferred reservoir site by the 22nd October 2025, even based on the activities included in the programme, we consider this optimistic.

Priority points

There is limited time in the programme to carry out and consider the ground investigation data to support the decision-making process (IDs 228, 229, 230). The turnaround of data collection, analysis and documentation, which includes the reliance of several parties introduces risk to this critical stage of the project. Furthermore, the Stage 2 Reservoir Site Selection Report, in Section 3.1.7.1 advises that "A comprehensive and accurate ground model will be developed in Stage 3 following completion of detailed geotechnical investigations.", however, this is scheduled in the programme (ID231) prior to completion of the initial GI (ID228) and hence the ground model will not be as "comprehensive and accurate" as it might be with the results from the targeted GI. This adds risk into the reservoir site selection process and potentially increased costs, should ground conditions not be as anticipated for either the reservoir site or potential borrow pit locations.

Section 6.4.2 of the Stage 2 Reservoir Site Selection Report includes the main discussion points following the Stage 2b Workshop, which include reference to the geotechnical uncertainties and "Highlights the critical importance of thorough geotechnical ground investigations, which will be required for any potential site". While the project team recognizes the criticality of the geotechnical uncertainties, no allowance appears to have been made in the programme to manage and mitigate this risk.

5.4 Stakeholder Engagement

The local planning activities have shown minimal progress from last year as a site has not yet been selected. Stakeholder workshops and local invitation meetings were scheduled to commence in March 2024 and run through to December 2025. LPA meeting 1 was due to be held on 28 April 2025, however, we understand this was delayed due to agreement in consultation approach.

Site selection activities require acceleration, as the majority of outstanding programme items are contingent upon stakeholder engagement and buy-in. Rows 207 to 252 comprise key activities requiring sign-off from Local Planning Authorities (LPAs), including the client review of Environmental Survey Plans scheduled to commence on 26 January 2026.

We note that the site selection report was completed by Jacobs on 31 March 2025, with the programme allocating 10 days for NWG review by 9 May 2025. However, the report remains under review. This delay impacts subsequent activities, including land acquisition negotiations scheduled to commence on 21 November 2025 (row 253), which are contingent upon NWG site approval and stakeholder agreement.

Priority points

We have seen a clear engagement plan with the Environment Agency (EA) covering the following year and the team have started engaging with them. Ofwat, DEFRA and the Drinking Water Inspectorate are currently not included in the engagement plan. We would recommend a bespoke engagement plan with each regulator, as in-depth consultation and meetings will be required specifically to manage issues arising from the project. Some of the decisions made by these regulators will impact reservoir sizing and project timelines and as such should be effectively managed to mitigate the risk of delays or cost increases. These relationships may be managed by other teams, in which case clear and frequent communication with the relevant teams will need to be included in the plan.

5.5 Water Quality and Treatment considerations



We understand from the documents and discussion that Barsham treatment works is the intended treatment works for the new source. The works currently treats water from the river Waveney. To treat the new source, an expansion to the current site is required. We have seen evidence that the team have considered the existing works and challenges, particularly in relation to high nutrient concentrations and algal blooms. A range of options have been identified with a preferred treatment process set out.

Priority points

Water quality data used to inform the planned treatment processes is from the river Waveney, which we note will account for 4/5 of the water supplying the reservoir¹¹. The Wetland Final Report identifies that there is limited data available for the Hundred River, which will make up the other 1/5. Whilst the impact on the overall water quality of the reservoir may be minor, the inclusion of accurate water quality data from the Hundred River will need to be included to ensure planned treatment processes remain effective.

The use of a wetland to be used as pre-treatment to help manage high nitrate has been identified as an option to manage water quality in the reservoir. The size of the required site has been calculated as 23.1 hectares. This area has not been accounted for in the site selection, and as such there is a risk that the option for inclusion may not be feasible or practicable if the preferred site cannot accommodate it. We understand that the incorporation of the wetland is predicated on agreement of alum dosing with EA. These discussions should be prioritised so that a decision can be made or brought forward if possible and greater certainty given to other elements of the scheme.

5.6 Conveyancing routes for pipelines

The pipeline stage 1 route selection shows that corridors have been identified, although we could not review the methodology as this was not provided in time for our review. The timeframes for the pipeline tasks look reasonable and are in line with other projects of a similar scale.

5.7 DCO Application

The timescales given for the preparation and submission of the DCO application appear to be achievable with a logical and coherent sequence.

Priority points

The Planning Inspectorates (PINs) acceptance is scheduled for 15 May 2028. Based on submission of 29 Dec 2027, we would anticipate acceptance by 26 January 2028, with a 4-month pre-examination period (worst case scenario) commencing on the 27 January 2028, ending on 26 May 2028. The examination would commence 27 May 2028 and run for 6 months to 26 November 2028. The programme currently has the 4-month pre-examination running from 13 July – 1 November 2028, and the 6-month examination running from 2 Nov 2028 – 18 April 2029. This reason for longer timescales in the programme is not clear, but this could be brought forward.

The programme indicates that the finish date for the EIA / ES (for DCO Submission) (line 584) is 16 February 2028. This falls after the target submission date of 29 December 2027.

6. Limitations and Exclusions

Our findings are based upon the information made available to us. At the time of our assurance, work to finalise the APR

¹¹ Technology selection report, Jacobs, June 2025.



reporting methodology was ongoing. As a result, our assurance covers the approach which has been proposed. We are unable to comment on the final percentage figure that will be submitted to Ofwat as part of the 2024-25 Annual Performance Report.

The current programme reflects the planned steps to achieve concept design. There are several outstanding decisions to be made before the deliverables set out in Appendix 2 will be completed. We therefore note that several details of the chosen solution implemented may differ significantly.

We have not had sight of any cost estimates or to spend to date. We have not reviewed the approach or assumptions underpinning cost estimate development, which we understand is being undertaken by a third party.



Appendix 1: Summary

Stantec Project No.		Project Description Task				
331102007		North Suffolk Winter Storage Reservoir Detailed Design (Scheme 3)	PCD assurance			
Company NWG Project Reference No.		Short description	Risk Score	Reported Performance for PCD		
Northumbrian Water GroupWN024/0 246Detailed design of North Suffolk Reservo which will deliver 16.2 Ml/d water availab gain for the Northern Central WRZ under drought scenario.		Detailed design of North Suffolk Reservoir is for a scheme which will deliver 16.2 Ml/d water available for use (WAFU) gain for the Northern Central WRZ under a 1-in-500 year drought scenario.	RED	Percentage completion of elements set out in Accelerated Infrastructure Delivery Project, Appendix 2: price control deliverables, Ofwat, June 2023		
Findings Summary		Our work has found that the project has not delivered the ta Control Deliverables (PCDs) as per Appendix 2. The delays are scope of the required reservoir, which is well evidenced. Follo been made towards the deliverables from Appendix 2. Stage 2 methodology has been completed, with stage 3 due for comp this stage, no fieldwork, direct site investigation or proprietary Following PR24 final determinations, the North Suffolk Reser RAPID gated process as a strategic resource option (SRO). Th requirements for the 2025-30 period will be those set out in F projects. The updated programme for the scheme reflects the incorporated planning for Development Consent Order (DCO submission is scheduled for July 2026, with construction due note that this timetable is challenging with a high risk of delay planning in several areas.	rget completic e due to a signif wing this chang 2 of the site sele oletion in Decen 7 data have been 7 voir will procee erefore, reportin 2R24 document ese changes an) submission. F to start in Decen 7 due to a lack o	on of the Price icant change in e, progress has ection hber 2025. At n used. Id through the ng cation for major d has Rapid Gate 2 mber 2029. We f contingency		
		Based on the current progress, the PCD output requirements as set out in Appendix 2 have not been met. As such, we have categorised the score as Red . Our review of the programme forward plan has highlighted a risk to the timescales of delivery, however, we also note that effective management of these risks can mitigate the risk. As such, we consider the score as Amber .				
Opinion on Ofwat statements		The change in project scope has resulted in the North Suffolk Reservoir being added to the RAPID programme for PR24, with separate reporting requirements and approvals process. The company have engaged with Ofwat to understand reporting requirements going forward. The response clearly				



Emerging risks/issues		sets out the expectation that PR24 rep Accelerated Delivery Appendix 2 final regarding the timing of the scheme's p Following the company's adaptive p 2027 regarding the prioritization of th determine the size of the reservoir. C NWG, was to enable the company to decision point is still optimally timed concept phase will consider 3 different has sufficient information to bring th mitigate substantial risk of delay to t	borting requirements supersede those set out in the decisions. It is unclear if there remain any expectations progression. athway, the company is scheduled to make a decision by April he North Suffolk Reservoir and Lowestoft Reuse and to One of the advantages of accelerated delivery, as stated by bring this decision forward. The company should review if this d given the significant increase in reservoir size. The current ent sizes until the decision point, however if the company now his decision forward the process could be streamlined to the programme.
Date of audit Stantec Tea		am Client Team	
22/05/2025 Chris Roxburg		urgh, Lesley Salt, Edwin Reynolds Ben Miles, Lisa Connor, Clair Rouse	



Revision	Date	Description	Author	Checked	Reviewed
1.0	28/05/2025	Feedback sent	LS	ER	CJR
2.0	10/06/2025	Draft feedback template sent	LS	ER	CJR
3.0	13/06/2025	Final feedback template sent	LS	ER	CJR

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Risk Scores

Score	Meaning (aligned to PR24 Final determinations: Expenditure Allowances – Assurance requirements for delivery of enhancement schemes appendix, Ofwat, January 2025)
Green	Performance is on track to meet the PCD output requirements. No indications of any factors which may cause performance to deteriorate from PCD requirements in the following year.
Amber	There is a risk that meeting PCD requirements is not on track (or there are indications requirements may not be met in the following year), but mitigations are in place to address issues.
Red	PCD output requirements are not going to be met, and there are insufficient mitigations in place to meet the requirements.
NA	Not audited as it was outside the agreed scope of work.

Guidance on risk and materiality:

The score reflects the level of reporting risk for the process and is based on the overall opinion of the auditors. In general, a weakness is material if it has the potential to impact the quality of the reported number to a greater degree than assumed by the confidence grade. All weaknesses (material and non-material) are described below (issues) and have been given a corresponding action.

Issues and Actions

Ref	PCD Reference	Issue	Action	Impact (Material or non- material)
1	Draft template	Draft of notes from initial meeting with project team to review the project to date.	Team to review and ensure accurate representation of narrative and discussion.	Material
2	First draft template	Revised template to include reference to documents provided	Client to review and provide feedback regarding any inaccuracies.	Material
3	Final template	Moved some details from the final report into the template.	Client to review	Non-material

Test 1 – Detailed Design, Output Measurement and Reporting

Audit Te	st			Risk Score (Green, Amber, Red)
PCD ou meet ti	utput requirements are not going to be met, and ne requirements.	d there a	re insufficient mitigations in place to	RED
Criteria		Y, N or NA	Notes	
1.1	Does the detailed design for the North Suffolk Reservoir deliver 16.2 Ml/d water available for use (WAFU) gain for the Northern Central WRZ under a 1-in-500 year drought scenario?	Y	The current design for the North Suffol MI/d water available for use for the Nor in-500-year drought scenario, instead between 16.2 - 19.9 MI/d (three differe considered). A Hydrology UK report (provided by NW identified that there was a mistake wit assumptions of available abstraction v Waveney. Storage-yield analysis, whic in greater detail, identified that the res to achieve the targeted deployable out An additional Hydrology UK report ¹³ fur risks related to further abstraction limit Environmental Destination targets and waterbody reclassifications. In September 2024, the project team re the design scope of the project to delive the River Waveney, and an additional 5 This increase in reservoir size and DO v Resources Team at NWG, although it v decision on the size of the reservoir wor milestone is currently not captured in takey covered the WAFU need and our under that the water resources team are resp on the reservoir sizing and required dep	k Reservoir will now deliver 25 rthern Central WRZ under a 1- of a deployable output (DO) of nt size reservoirs were to be VG) issued in January 2024 h some of the original volumes from the river h considered flow constraints ervoir would need to be larger put ¹² . rther outlines several future its due to Habitats Regulations, I Water Framework Directive eceived instruction ¹⁴ to change ver 25 MI/d yield (20 MI/d from 6 MI/d from the river Hundred). was confirmed by the Water vas also made clear that a final puld be made in April 2027. This the critical path, but would be a Our assurance has not standing from discussion is ponsible for making a decision ployable output.
1.2	 Have the relevant surveys and reports been completed? On-site hydraulics Topographical surveys Geotechnical investigation reports On-site ecological and archaeological surveys (50%) 	Ν	At the point of assurance, the site sele finalised. Stage 1 of the site selection p 2 has just been completed. Stage 2 inc identify constraints and provide a RAG decision-making. This included geotec environmental, planning and land cons methodology outlines the consideratio in. At this stage, no fieldwork or direct s undertaken ¹⁵ .	ction has not yet been process is complete, and stage cluded desk-based study to score for each site to aid chnical, engineering, straints. The site selection ons which have been factored site investigations were
	 Network rail UTX designs 		On-site hydraulics and topographica The team has started looking at convey which includes a pipeline from river to treatment works and potentially additi rivers if additional abstraction is requir both being considered). Preferred corr	Il surveys yancing across multiple sites – reservoir, reservoir to onal pipeline from additional red (Hundred and Blythe are idors and hydraulics have been

¹² NSR Storage-Yield Analysis, Hydrology UK, January 2024.

¹³North Suffolk Reservoir – Water Resources overview, Hydrology Uk, August 2024.

¹⁴ NSWS Reservoir Capacity – Response to Instruction SMI-0006

¹⁵ North Suffolk Winter Storage Stage 2 Site Selections Report, Jacobs, March 2025

considered. The team have also considered on-site hydraulics through the proposed water treatment works as well.

We did not have access to the Pipeline Route Selection Methodology (referred to in section 2.3 of Pipeline Stage 1 Route Selection 1), as such limited detail was available. We note that it would be useful to have a tabulated summary of the pipeline routes showing overall lengths, length of open cut, length of trenchless, likely diameters and operating pressures, etc. The timeframes for the pipeline's tasks look reasonable and sensibly timed.

The topography of potential sites has been investigated to understand the needs of the reservoir. This extends to the required angles and slopes of the structure, biological information, bedrock, and geotechnical info, required heights of embankments, potential lining of ground etc. The considerations are detailed in the Stage 2 report, and the Site Selection Methodology.

The final design will be subject to consultation, to consider its integration into the environment and other visual elements. Learnings and engagement with similar projects (Anglian SRO) have been used to inform the project and planned stakeholder management.

Geotechnical investigation reports

The underlying geology of the sites has been investigated based on existing stored information from other projects and works. The majority of this initial work has been desktop-based, however there has been an on-site walk-over to verify some existing aspects of the records are accurate.

MWH treatment will carry out the geotechnical surveys once the proposed site has been selected. The plan shows that these surveys are currently planned for August-September 2025. The team have identified a risk to getting land planning agreement from the local authority and possibly land owners and have identified this risk in the stakeholder engagement plan¹⁶.

The Stage 2 Reservoir Site Selection Report sets out the need to undertake several tasks to inform Stage 3 – specifically (a) more detailed hydraulic assessment of and impacts on surface waters, (b) refined cut and fill excavation calculation, and (c) a WFT assessment for both surface waters and groundwater bodies to be appraised when depth intrusions are known, and GI data may be available. From our review, the programme does not appear to reflect allowance for the above tasks to be completed, to help inform the decision for the preferred reservoir site by the 22nd October 2025. The stage 3 reservoir site selection report (ID238 – 239) is programmed for completion just 2 weeks after the initial GI interpretative report (ID 230). We understand that the document will be developed throughout stage 3 activities, however due to the fundamental inclusion of GI data, we would recommend allowing additional time to ensure full consideration.

The Client is due to review the Final Stage 3 Submission (ID240 – 243) between 20 November and 10 December 2025. We understand that the project team have an All Reservoirs Panel Engineer and a Supervising Engineer working on the site selection process to ensure safety aspects are considered during these early phases.

¹⁶ NSWSR Integrated Engagement and Consultation strategy, Jacobs, July 2024.

			A reservoir lining study has been completed to feed into site selection. There is a risk that lining may be required if the ground permeability is too high. The stage 2 report highlights that there is a significant risk to costs associated with this. The inclusion of a liner for a reservoir of this size and the need and design of it will need to be considered alongside both the geotechnical data and ground model as well as the overall agreed operating regime for the reservoir. Designing out the need for a liner would be advantageous in terms of budget, programme and future maintenance demands. On-site ecological and archaeological surveys There has been no on-site activity at this point. The proximity of each area to a heritage designation is identified in the site selection methodology, and archaeology is identified to be considered further at the next stage. Desk-based data on priority habitats, designated sites and groundwater dependent terrestrial ecosystems have been considered. Available information will inform a long list of potential surveys that will be required. Once site selection has been confirmed, on-site visits will act to verify desktop information and determine the required surveys and assessments to be carried out. The ecological risks are considered, however, the potential benefits through net biodiversity gain and natural capital have not yet been evidenced in the site selection methodology. Consideration of these factors prior to the final site selection could help identify those sites which offer more favourable cost-benefit relationships. Additional points NWG's costing team (TNT) are currently costing this project. Current cost estimates are still based on original work for the WRMP24 by Mott McDonald. These provided costs have been extrapolated to provide a new estimate. There is currently a big risk to the capex costs, particularly in relation to the lining study. We understand that further cost-benefit analysis will be carried out abeed of 2027. Site
			selection could start to consider costs and benefits to support this
	Line of the second of the second s		analysis in the future.
	Have the relevant agreements and approvals	N	Formal Environmental Impact Assessments (EIA) and preparing
	been granted?		environmental statements for planning approval
1.3	 60% of the work required on undertaking formal Environmental Impact Assessments (EIA) and preparing environmental statements for planning approval 		The team has developed an environmental strategy and plan. Applications for permits will be submitted once site selection has been made and teams are ready to move – as the validity is for 2 years.
	 Land agreements (as appropriate) 		Network rail UTX designs As site selection is still to be made, track crossings may not be required. No progress to carry out this work has been completed. Maps of possible sites show that 3 of the 4 sites would be unlikely to require any track crossings. The UTX design would be contracted out to carry out feasibility assessments in the even that it is required.
			Environmental survey plans Environmental survey plans for the preferred site (ID 244) are scheduled in the plan for November 2025, providing 1-2 months for NWG review and approval, with the majority of approval time falling during the Christmas period.

			The submission of the EIA scoping report and Environmental Statement (ES) for planning approval is scheduled for July 2028.
			Water quality monitoring
			During the Concept design phase of the programme, we note that
			the 12-month flow and water quality of the River Waveney
			completes on 22nd July 2026, yet the Storage Yield Assessment and
			EA confirmed abstraction rates have already been agreed (ID 162 –
			163). If this task will impact the storage yield assessment or other
		V	decisions, this should be identified in the programme.
	Is there appropriate internal governance in	r	The Jacobs project team are currently in contract for the concept
1.4	place to monitor and report on progress		phase of the project, including non-statutory consultation within
	Internative Does this cover - progress		DCO. There are regular meetings between the programme manager
	against deliverables, infancial profiles, and		and the project team to track actions, decisions and provide updates. Project deliverables are tracked, but the deliverables set out in
	outputs:		Appendix 2 are not reported against. This is predominantly because
			these deliverables will be achieved in the next phase of the project
			and are therefore not scheduled in the current programme.
			Communication with linked projects
			The team have a monthly joint technical meeting with the team
			overseeing development of the Lowestoft Reuse scheme. This is an
			opportunity to share information and data where relevant to both projects. Developments are reported and efficiencies between the
			two projects identified. For example, surveys are being coordinated
			across schemes as much as possible based on site selections.
			The project team also collaborate with the team overseeing
			development of the strategic pipelines. The stakeholder engagement
			will be coordinated across these projects to ensure clear and single
			communication lines with relevant stakeholders. There is a working
			group meeting every mursday, neid with all stakeholders including Saville's.
			Future governance and reporting
			There is planned internal, technical scrutiny to follow completion of the current concept phase. From this the technical scope of the
			project is planned, which will occur ahead of RAPID Gate 2
			submission (estimated date of Jul-2026). The technical scrutiny will
			provide enough information for the engineering principle of a
	Has the delivery of the outputs been	Y	The current programme was updated in September 2024 to reflect
1.5	reported and monitored through the existing		the required design change to increase the reservoir capacity to
_	APR process?		30,000 ML. It is not clear against which criteria last year's APR figure
			was submitted (Table TOH), nor the methodology used to derive it.
			The methodology proposed for calculating the percentage
			completion for 2024-25 is to compare the time spent on specific
			activities against the total projected duration. This methodology
			work carried out towards producing the outputs to be captured.
			However, the proposed methodology does not provide a view of the
			outputs, which the PCD was designed to capture. It does also not
			provide an accurate reflection of progress if tasks take shorter or longer than anticipated or are delayed for any reason. This may result
			in the project appearing either more or less progressed than it is.
			This methodology would require each task in the plan to be mapped to the corresponding output, to establish how progressed each task

16	Has the relevant internal assurance been completed? Has this been demonstrated.	Ν	 is. The mapping of these lines has not been provided to us, and therefore we cannot comment on the appropriateness of the approach. The methodology should outline any assumptions used to carry out the mapping in addition to those used to calculate the time allocations. The confidence grade is allocated a C3, indicating that the data is based on extrapolation from a limited sample, for which grade A or B data is available and the accuracy is within +/-10%. The raw data, nor the calculations have been provided, and therefore we cannot comment on the accuracy of precision of the methodology. Current progress – as a percentage - is logged and updated in the plan. These percentages represent the percentage volume of work completed – as estimate by SMEs. No internal assurance is carried out on these figures. We are not aware of any internal assurance carried out against the proposed APR methodology. 	
Additiona	al Guidance			
Auditiona				
https://www.ofwat.gov.uk/wp-content/uploads/2023/04/Appendix-2-Accelerated-Delivery-Project-Final-Decisions-2023.pdf				

Detailed Observations to justify assurance decisions

To enable a person not involved in audit to understand the risk scores allocated above. Include screenshots and document references as appropriate.

Test 2 - Conditions of scheme

Audit Test				Risk Score (Green, Amber, Red)
There may n	AMBER			
Criteria		Y, N or NA	Notes	
2.1	Is the company on track to deliver its PR19 water enhancement programme in full?	NA	In the Accelerated Infrastructure and Delivery P Ofwat allowed NWG PR24 transition expenditur five schemes on the condition that the Compan sufficient and convincing evidence in summer 2 deliver its PR19 enhancement programme. Ofw company in October 2023 to confirm that it con met ¹⁷ . We have not undertaken any assurance i	Project final decision, re funding to accelerate by provide Ofwat with 2023 that it is on track to vat published a letter to the isidered this condition n this area.
2.2	Have all the PR19 funded benefits been delivered on time as expected to meet the supply-demand balance? With assumption that any benefits have been assured under other projects.	NA	Funding provided as part of the Accelerated Del was to deliver progress against the detailed des Reservoir. Targeted progress for specific aspect in Appendix 2. As this work is still in the detailed associated WAFU benefit at this stage of the pro	livery Process in June 2023 sign of the North Suffolk ts of the project are set out d design there is no ogramme.
2.3	Are the updated timings of the benefits of this scheme (WAFU) including any implications for the rest of the programme consistently taken account of in the company's WRMP?	Y	In the consultation process for accelerated deli accelerated funding would "enable the optimur established sooner" and enable the moratoriun supplies to be lifted ¹⁸ . Due to the change in requirements of the schen WAFU benefits, the North Suffolk reservoir is no 2040, instead of the potential 2033/34 date as p Accelerated Delivery submission. This date is ir WRMP24 and therefore no wider implications h	ivery, NWG argued that m pathway to be n on new non-household ne to deliver the targeted ow due for completion in per the company's n line with the original ave been noted.
2.4	Have any components of this scheme been excluded from future WRMPs? If so, have the company ceased work on those elements immediately with no further work	Ν	At the time of this assurance both schemes are The company has identified April 2027 for a dec which project to prioritise. This is consistent wit the company's Long-term Delivery Strategy ¹⁹ . The current programme is developing a concept appropriate for 3 different sized reservoirs (see team have informed us that the largest propose	still potential schemes. sision to be made regarding th the timeline set out in t design which is Stage 2 report). The WRMP d size - 30,000 Ml - takes
	being funded?		account of further potential abstraction limits of flow conditions and Habitat regulations.	due to licenses, Hands-off
Additional Guidance				
https://www.ofwat.gov.uk/wp-content/uploads/2023/04/Appendix-2-Accelerated-Delivery-Project-Final-Decisions-2023.pdf				

Detailed Observations to justify assurance decisions

To enable a person not involved in audit to understand the risk scores allocated above. Include screenshots and document references as appropriate

¹⁷ Accelerated infrastructure delivery project: Letter to Northumbrian Water Limited in relation to the condition included in our final decision that is on track to deliver its PR19 enhancement programme, Ofwat, October 2023

¹⁸ <u>Accelerated Delivery – NWL Response to Draft Decisions 24.4.2023_Redacted</u>, Northumbrian Water, April 2022

¹⁹ Shaping our future: Our Long-term strategy 2025-2050, Northumbrian Water, Essex&Suffolk Water, October 2024.

Test 3 – Forecast Deliverables

Audit Test			Risk Score (Green, Amber, Red)	
There is a risk that meeting PCD requirements is not on track (or there are indications requirements may not be met in the following year), but mitigations are in place to address issues.		AMBER		
Criteria		Y, N or NA	Notes	
3.1	Have the outputs specified by 31 March 2025 been met? If not, can this be explained?	Ν	Of the outputs specified in Appendix 2 to be completed b these have been achieved. In the 2023-24 annual perform company reported 5% progress against these outputs. He found in the assumptions of the reservoir design, which he changes to the design scope. In September 2024, the project team received a notice to project. Due to the increase in size of the reservoir, new s considered for the project. The site selection is still ongoin required surveys and design details included in the output been completed at this time.	y 31 March 2025, none of nance report to Ofwat, the owever, in 2024 an error was nas required significant o change the scope of the sites have had to be ing, and therefore the its to be delivered, have not
3.2	Has the scheme's detailed design and planning met the required percentage completion for each associated year	N	See comments above. More detail regarding the progress Table 1. At this stage in the project there has been no field investigations. The collation of desktop data to support s	to date can be found in dwork or direct site ite selection has taken place.
3.3	How does this year's reported performance compare to the previous year? Has there been demonstrable progress since the previous year?	Ν	Considering the change to scope and size of the project sign arrowing based on the new design scope, however, there has been the deliverable outputs. The site selection methodology from the deliverable outputs and the selection methodology from the deliverable outputs. The site selection methodology from the deliverable outputs. The site selection methodology from the deliverable outputs and the selection methodology from the selection for the preferred development site has an engagement plan has been developed and early engage initiated with a programme of communications developed frame is reference in the strategy to engage early with loc PPAs in place. It would be beneficial to do the same for kended and the EA, with SLAs put in place at the Natural England and the EA, with SLAs put in place at the strategy clearly sets out the purpose to undertake method consultation will be delivered as close as reason statutory consultation. There is a risk that if this occurs to non-statutory consultation, if it appears that decisions has project irrespective of the response to the consultation. There is process, however the programme identified the final EIA resubmitted in March 2026. The document outlines that a drafting of the ES will be necessary to keep the assessmet This is currently in the programme for September 2026.	since the submission of last g down the potential sites n minimal progress towards nas considered multiple sign elements to proceed been identified. gement with the EA has been d for the subsequent year. al authorities and putting ey stakeholders such as earliest opportunity. eaningful stakeholder – it is stated that non- nably practicable to a bo quickly, it devalues the ad already been taken on the Fhe document refers to sions. There is a risk that the le project, which will need to ets out timelines and delivery strategy will be a design freeze for the EIA and ent of topic areas focused.
3.4	Have the outputs specified by 31 March 2027 been met? If not, can this been explained?	N	See comments in 3.1.	
3.5	Are the outputs specified by 31 March 2027 on track to being delivered? If not, are there	N	It is not clear from the programme plan shared, if the out 31 March 2027 are on track to be delivered. The current c completion in September, 2026 with several of the on-sit next project stage, for which we have not yet seen a detai	puts specified for delivery by oncept phase is due for e surveys scheduled for the iled plan.

	mitigations in place?		
	initigations in place.		We note that from correspondence between the company and Ofwat, that from the start of the 2025-2030 period, this project will progress through the RAPID gated process. In communication with the company Ofwat has set out that the reporting requirements set out in PR24 documentation will then supersede the deliverables outlined in Appendix 2. Key risks have been identified and are tracked in a risk register. These include risks associated with geotechnical suitability (the need to line the site could potentially increase costs by +30%), stakeholder management, and land agreements. Bi-weekly risk register meetings take place between the programme lead and project lead. There is an escalation process which facilitates issues and blockers to be raised to the steering group, who meet quarterly. Alternatively, the senior project manager can escalate to board if required.
3.6	Have there been any changes to the detailed design scope, as set out in the proposed works? If so, can this be explained?	Y	There has been a large scope change to increase the size of the reservoir. The required increase in reservoir size to provide the original 16.2 – 19.9 ML/d is well-evidenced, however, the increase in required DO from 16.2 – 19.9 ML/d to 25 ML/d has not been evidenced. We understand that the final decision on the size of the reservoir will take place in April 2027.
			are several key milestones still to be delivered.
			1. Size of the reservoir and the required DO.
			2. Site selection. The stage 2 site selection methodology has been
			documented, however, the final site has not yet been selected. 3. The interaction with Lowestoft – documents indicate that Lowestoft may
			discharge directly into the reservoir, instead of the river.
			4. A wetland is currently being considered as pre-treatment to help remove
			nitrates. Cost-Benefit analysis of its inclusion in the scheme is still to be carried out. I and requirements will need to be considered.
			5. Abstraction points on the rivers feeding the reservoir need to be determined.
			The original plan was to use the existing abstraction point, however it has been determined that an additional abstraction location will need to be used. The potential to abstract from the River Hundred and the river Blythe is being considered. Studies are underway to understand current river flows.
			 Conveyancing routes for pipes (raw water transfers from river(s) to reservoir and reservoir to water treatment works) to be determined once site selection is complete.
			DCO Programme
			Due to the increase in size, the reservoir will now proceed through DCO. The
			application appear to be achievable with a consistent sequence. We identify the DCO programme as follows:
			commenced in May 2025
			non-statutory consultation January / February 2026
			statutory consultation March / April 2027
			submission of the DCO application in December 2027
			We note that the current DCO submission date is 29 December 2027, which carries risk due to availability of resource at this time of year.
			The preparation of templates and production management systems is currently programmed to commence 19 March 2027 and run to 17 February 2028. It is important
			that such systems are put in place as early as possible to ensure consistency throughout. If possible, this should be commenced at the outset (as soon as 19 May 2025 as per the commencement date). The preparation of the DCO Deliverables list could also be moved earlier (ID 624).
			Two separate tasks are identified for the Preliminary Environmental Information Report (PEIR), with end dates in July and October 2027. If statutory consultation is

	scheduled for March/April 2027, these timelines do not align, as the PEIR should be a complete document published for consultation purposes.
	We have requested documentation covering any engagement the company has had with Ofwat to understand if the regulator is aware of the change of requirement and scope of the project, however, no documentation has been provided. We have used publicly available information from the PR24 process to set out changes in the regulatory requirements of the project going forward.
Additional Guidance	
https://www.ofwat.gov.uk/wp-conten	t/unloads/2023/04/Appendix-2-Accelerated-Delivery-Project-Final-Decisions-2023.pdf

Detailed Observations to justify assurance decisions

To enable a person not involved in audit to understand the risk scores allocated above. Include screenshots and document references as appropriate

Test 4 – Forecast benefits

Audit Test			Risk Score (Green, Amber, Red)	
There is a risk that meeting PCD requirements is not on track (or there are indications requirements may not be met in the following year), but mitigations are in place to address issues.			AMBER	
Criteria Y, N or NA Notes				
4.1	Does the detailed design of the storage reservoir meet the forecasted WAFU delivery?	Y	The forecast delivery was 16.2 Ml/d. The change in scope means that the largest size reservoir being considered (30,000 Ml) will now deliver 20-25 Ml/d. However, these changes mean that the forecasted WAFU will not be available for the timescales proposed in the accelerated delivery final decisions. Completion date is now 2040.	
Additional Guidance				
https://www.ofwat.gov.uk/wp-content/uploads/2023/04/Appendix-2-Accelerated-Delivery-Project-Final-Decisions-2023.pdf				

Test 5 – Data Checks (record of checks made)

Document reference		Details of check	Findings	
Review of programme of work		Consistency of dates and sequencing. SMEs reviewed the timescales and provision of time for each task to assess if this is reasonable based on experience.	Current programme is sequential and up to date. Several timescales were considered short for the required task and work. There is little time factored in for reviews and approvals. These all add to the overall risk of delivery of the programme to the specified timescales.	
Hydrology UK Reports		Check of logic and basis of changes. The models nor the calculations were verified. We understand from discussion that the Jacobs project team have verified these.	Rationale for required changes is evidenced.	
Site selection methodology		The methodology has considered available data and the methodology has been applied consistently.	The applied methodology is comprehensive and provides a clear audit trail for decisions.	
Sample Checks - approach				
State the level of sampling carried out in this audit, the justification for the level of sampling and any recommendations for further sampling: [Risk-based sample checking of data or records for each PCD back to source (internal company source data only). Assurance should prioritise PCDs which cover a larger amount of expenditure and/or where there is no regulatory oversight other than Ofwat]				
We sample checked the following items back to source:				
Unique identifier	Source of data	Details of check	Findings	

Detailed Observations to justify assurance decisions.

To enable a person not involved in audit to understand the risk scores allocated above. Include screenshots and document references as appropriate.

Additional Notes

Meeting log			
Date	Detail	Attendees	Section of template
22-05-2025	Meeting with project team to cover the programme and gain understanding of the timeline of work. Identification of further documentation for review and feedback.	Ben Miles, Clair Rouse, Lisa O'Connor	Section 1 and 3
27-05-2025	Meeting with programme lead (Sam Okegbenro) to understand the wider WRMP impact and APR reporting methodology.	Sam Okegbenro	Section 1
02-06-2025	Meeting with NWG Resource & Supply Strategy Manager and team to understand the wider WRMP impact of changes in scope to the North Suffolk Reservoir	Will Robinson, Daniel Wilson, Katie Davis	Section 2 and 4

Record of Evidence Reviewed

List of all documents reviewed as part of the audit:

- 1. Stage 2 Site Selection Report.pptx
- 2. WN024_0246-JAC-XX-TBC_000-DOC-C-0003 Winter Storage Reservoir Site Selection Study.pdf
- 3. WN024_0246-JAC-XX-XX_000-DOC-C-0007 Pipeline Stage 1 Route Selection 1.pdf
- 4. WN024_0246-JAC-ZZ-ZZ_000-DOC-Z-0005 North Suffolk Winter Storage Stage 2 Site Selection Report.pdf
- 5. WN024-0246 North Suffolk Winter Storage Reservoir Site Selection Methodology P02.pdf
- 6. NSWS Capacity Response to SMI-0006_Rev0 .pdf
- 7. SMI-0006_Contractual Instruction_ Proceed with North Suffolk Reservoir Project Based on 25MLD Yield (2) .pdf
- 8. North Suffolk Winter Storage Programme detailed view .pdf
- 9. NSWS Programme summary .pdf
- 10. NWG_NSWS Reservoir_Environmental Impact Assessment Delivery Strategy_Rev02.pdf
- 11. NWG_NSWS Reservoir_Initial Environmental Surveys Plan_Rev01.pdf
- 12. EA Engagement Timetable Programme.pdf
- 13. EA Engagement Timetable Schedule of Meetings.pdf
- 14. WN024_0246-JAC-XX-XX_000-DOC-T-0001 NSWSR Integrated Engagement and Consultation strategy (1).pdf.
- 15. WN024_0246-JAC-XX-TBC_000-DOC-PR-0002 Technology selection report.pdf
- 16. WN024_0246-JAC-XX-TBC_000-DOC-PR-0010 Wetland Final Report.pdf
- 17. WN024_0246-JAC-XX-XX_000-DOC-PR-0009 WN024-0246_North Suffolk Winter Storage Nitrate & Phosphorus Technical Note.pdf