

ECC Scope Template - Early Supplier Engagement (ESE)

Environment Agency

NEC4 engineering and construction contract (ECC) Scope

24/09/2018 412_13_SD10

Project / contract information

Project name	Curry Moor Reservoir Improvements
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Author	██████████

Revision history

Revision date	Summary of changes	Version number
9 th February 2021	First issue	1.00
14 ^h April 21	Final issue	2.00

This Scope should be read in conjunction with the version of the Minimum Technical Requirements current at the Contract Date. In the event of conflict between them, this Scope shall prevail. The *works* are to be compliant with the Scope

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1. Background and Description of the works

Under the Reservoirs' Act 1975, the Curry Moor Flood Detention Reservoir has been designated high-risk, and as such is subject to periodic Section 10 (S10) Inspections by an Inspecting Engineer. The resulting report contains recommendations, including Matters in the Interests of Safety (MIOS) which have legally enforceable deadlines for completion. Their completion is accepted by a Qualified Civil Engineer (QCE) by the issue of a certificate.

The Curry Moor Flood Detention Reservoir has had a S10 Inspection, and the resulting report, dated 22nd July 2019, contains recommendations including MIOS. These recommendations must be completed, and the associated certificate confirming the recommendation have been carried out issued, no later than six years after the issue of the report. In addition, the MIOS recommendations require that the studies, and assessments required to determine the need for, and the nature of, the MIOS works, are completed no later than three years from the issue of the report. However, the Environment Agency requires the MIOS recommendations to be completed one year ahead of the statutory deadline; 22nd July 2024, and the associated studies six months early; 22nd January 2022.

The MIOS items are as follows:-

Where badgers have burrowed in the River Tone left raised river bank, in the section between Hook Bridge and New Bridge, works are carried out to restore the integrity of the embankment from risk of internal erosion and overflow discharges.

ii) The section of the River Tone left raised river bank just before New Bridge is repaired to improve its stability, assess the risk of overflow, which should be reduced if necessary, and maintain safe vehicle access along the crest. **THIS ITEM is outside of this scope, but is included for completeness**

iii) Hook Bridge Inlet Spillway is modified to reduce the risk of blockage by debris.

iv) The trash screen on the Curry Moor side of Haymoor siphon is replaced to comply with current debris screen guidance to make it easier to keep clear.

v) A structural assessment is carried out for the culverts beneath the access track to Curry Moor Pumping Station which is shared with Network Rail, to determine the maximum vehicle weight that can be accommodated.

vi) The risk of a breach of the raised river bank of the River Tone into the reservoir and its impact on the retaining embankments along Cuts Road and Athelney Farm areas is assessed.

vii) The anticipated flood levels in the reservoir are assessed using current good practice methodology.

viii) The adequacy of the spillways is re-assessed once the flood levels have been updated as recommended above.

ix) The outer face of Banklands wall is surveyed, the suitability of the erosion protection on the lower part of the slope is assessed and any necessary works undertaken.

x) The risk of failure of Stanmoor cut-off bund against both internal erosion and overtopping failure is assessed and demonstrated to be suitably low with regards to the adequacy of drawdown capacity. The items under 15.3 are as follows:-

Further recommendations are as follows:

The embankment from the top of the ramp onto Cuts Road as far as the line projected from the wall round Saxonburgh Gardens is taken to form part of the reservoir and thus potentially subject to overflow, albeit noting that any initial shallow discharge will be deflected down the ramp by the kerb.

This embankment should be sufficiently cleared of vegetation to make the ground surface visible for surveillance and the large trees pollarded.

The trees close to the inner face of Banklands (wall) are inspected and any surgery undertaken where required to minimise the risk of their blowing over. It is agreed that an arboriculture survey should be included within this scope.

The vegetation on the Curry Moor upstream cut-off bank is cut back to permit effective surveillance of the bund, following which the bund is surveyed and levelled. The line should be plotted on the reservoir impoundment plan as a revision to show this bund and any inlet pipes that may exist.

The area of the Curry Moor upstream cut-off bank around the broken pipe is cleared to identify whether there is a pipe passing through the cut-off bank. If a pipe is present, the condition of the pipe is assessed and if it presents a risk of internal erosion failure of the cut-off bund that remedial works are carried out.

The small slip/erosion on the inner face (Curry Moor side) of the River Tone left raised river bank approximately 30m upstream of the seventh gate is repaired, regrading with dredged material or locally sourced material would be acceptable.

The low areas in the crest track off Hook Bridge Inlet Spillway are filled with suitable material to allow vehicles to cross without significant damage occurring and a constant cross-fall provided to improve surface drainage and avoid surface ponding.

The downstream face of Hook Bridge Inlet Spillway is closely inspected for scour damage once the grass has been cut. Following this any necessary repairs should be completed, the required surface protection and maintenance regime for the spillway reviewed and improvements implemented, if necessary.

Grass cover is established on the bare ground at the upstream end of Hook Bridge Inlet Spillway.

The displaced pipe at Curry Moor Upper Inlet is renewed.

The source of the water heard leaking into Curry Moor Lower Inlet pipe and emerging at the outfall on the left hand side of the structure is ascertained and any necessary repairs effected.

The cracked and spalled concrete on the face of the Curry Moor Pumping Station discharge culvert outfall into the River Tone is assessed and repaired or replaced as necessary. The gaps in the concrete upstand on the edge of the River Tone in front of the Curry Moor Pumping Station are replaced with flapped outfalls, as water flowing through these gaps currently provides a health and safety issue for both the station and operational staff

Coir matting, or similar, is placed on the bank surface around Baltmoor Wall Inlet intake and grass cover established.

A new manhole cover is constructed on Stanmoor Inlet shaft situated within the Stanmoor cut-off bund, with the first shaft ring replaced or repaired.

The area around the head of the rhyne running away from the inner toe of the River Tone left raised river bank near the fourteenth gate upstream from New Bridge is checked for seepage when the weather has been dry. If the area is still wet, then appropriate works are put in place to prevent any adverse impact from the seepage.

The reservoir impoundment plan is revised to show the reservoir upper limit at the Curry Moor upstream cut-off bund.

There are also items from the Curry Moor maintenance suggestions that Area Client is advocating are picked up by PCM namely:-

Deed Packs/Maintenance requirements

As a general note to all the sections where the 2015 improvements were implemented, it is understood that the land has not been officially handed back. Of the few affected landowners, there has been no official guidance/instructions with regards to maintenance requirements where the embankments are located on their land. These should be formally set out for their benefit, such that they have a known requirement for future maintenance.

They have requested what they call “deed packs”. Essentially these would be a set of simplified drawing and maintenance schedules, such that they know what is installed on their land and how to maintain it.

In terms of scoping a review of the information available to be undertaken, and where none exists, to be drafted to ensure that the affected landowners are provided with information that is clear in the extent of their responsibilities and the areas of land concerned.

WI 101 Description of the works

The Early Supplier Engagement (ESE) *Contractor* shall provide advice to the appraisal consultant (South West Collaborative Delivery Framework Lot 1 – Atkins) to enable the appraisal outcomes to be delivered.

WI 102 Purpose of the Works

The purpose of the works is to provide the required Deliverables - ESE technical and buildability advice covering but not limited to:

- Option development from short list to preferred option.
- Health and safety implications of options
- Temporary and permanent works outline design
- Operating regime and maintenance
- Access and buildability
- Sustainability and carbon
- Environmental impact
- Materials
- Cost
- Review of proposed site investigation
- Construction methodology
- Risks and opportunities
- Programme and phasing of works
- Option development from short list to preferred option.
- Value engineering and efficiency
- Knowledge transfer and lessons learnt

Management of overall project delivery shall be the responsibility of the *Client*.

The *Project Manager* will keep an issues log established for response by both the Lot 1 and the ESE supplier to record how issues identified have been incorporated into the project going forward.

The *Contractor* is to provide the following services:-

- a) The *Contractor* shall maintain verbal contact with the *Project Manager* and the *Client's* environmental project manager (NEAS) such that the *Client* is fully informed of progress and issues.
- b) The *Contractor* shall prepare and issue to the *Project Manager* monthly progress reports to include financial, progress and issue log updates / resolutions by the last two clear working days before the progress meeting.
- c) The *Contractor* shall attend all meetings required to deliver the services including weekly catch ups and the monthly progress meetings.
- d) The *Contractor* shall revise and issue to the *Project Manager* their monthly expenditure forecast with each Application for Payment (AFP). This shall show (broken down monthly) spend to date, invoiced to date (with order number referenced), forecast cost to complete and an estimate total cost to the *Project Manager*
- e) The *Contractor* shall assist the *Clients* design consultant to deliver outline designs for the *Clients* Curry Moor Reservoir Improvements design in accordance with the *Client's* Minimum Technical Requirements.
- f) The *Contractor* shall engage with the *Clients* design consultant as required to deliver the project programme.
- g) The *Contractor* shall review and comment on the designers risk assessment for all elements of the outline design.
- h) The *Contractor* shall follow the Employers Operating Instruction - OI 120_16 (02/11/16) Whole Life Carbon Planning Tool and review the Carbon Calculator and Carbon Optimisation Report once drafted by the *Client*. Provide advice on available materials and products including information on carbon and sustainability implications using amongst other tools the Carbon Planning Tool
- i) The *Contractor* shall input to the projects 'Combined Efficiency Reporting Tool (CERT)' and proactively identify efficiencies by involving the entire project team. The project team will discuss efficiencies at each monthly progress meeting to assist in identifying efficiencies.
- j) The *Contractor* shall input to the projects 'Lessons Learnt' register and proactively identify lessons learnt. Also to share lessons learned from the *Contractor's* wider organisation
- k) The *Contractor* shall undertake any stakeholder engagement for the successful delivery of the service included in this Scope.
- l) Collaboratively work with the *Client* and *Project Manager*, Designer, Principal Designer and others to assist in developing the preferred solution for the scheme
- m) Identify Health & Safety issues, potential value engineering opportunities and efficiencies in delivery.
- n) Assist in the identification of project risks and the development of the project risk register; including estimating the cost of risks realisation and mitigation measures.
- o) Provide Information and advice on buildability.
- p) Review outline design options / drawings that are to form part of the tender information to assist to ensure that sufficient information is available to price the options. Identification and advice to be provided on buildability, construction methods, SHEW compliance, access requirements etc
- q) Attend site visits to identify access requirements, physical constraints, easement requirements, required working areas, compound areas, etc.
- r) Attend design and risk workshops as required
- s) Produce a project draft delivery programme based on the preferred option at FBC stage. Programme is to identify required consenting, procurement, and site mobilisation and construction activities.
- t) Review of high-level project programme, as part of the strategic programme and input into activities, durations and sequence, identification of long lead items, ecological constraints, third

party constraints, consents, and robust delivery durations considering risk. Early identification of programme constraints that could prevent a scheme from commencing or completing as planned.

- u) Co-operate with the *Client* in the role of the BIM Information Manager.
- v) Review of any required draft temporary works schedules. Identification of any significant temporary works designs that need to be considered from a CDM perspective in advance of the works pricing, to ensure sufficiency of resources and time.
- w) Contribution to specialist areas of the high level cost estimate against a defined scope as requested by the project team. Advise / calculate suitable risk cost allowance.
- x) Input into a project level risk register that can be communicated and updated regularly throughout the life of the project. Identify opportunities and risks, the measures required to mitigate, quantification, and the allocation of residual risk to the party best placed to manage the residual impacts as part of the integrated project risks register
- y) Attend landowner meetings to discuss working methodology, disturbance, duration, temporary access arrangements, compound locations etc.
- z) Produce plans of all temporary compound locations and traffic routes.
- aa) Provide market relevant advice to support on project whole life costs (and carbon) as requested by the *Client*
- bb) Consider where applicable innovation and technology that can be embedded throughout the project, evaluating on a risk and opportunity basis
- cc) Input into optioneering and selection of best procurement methods for the project/package.
- dd) Provide input into Enabling or advance works, where this will allow the project to proceed to the required programme, or will accelerate it.
- ee) Selection and advanced procurement and storage of materials where this delivers efficiencies in cost and time to the project/package
- ff) Engaging with utility companies to discuss service diversion requirements and proposed plant activities in immediate vicinity of service
- gg) End user engagement to set the scene for future delivery in terms of solution expectation,
- hh) Review of draft Site Information - is sufficient information available to enable pricing the options. If gaps are identified, assessment made as to whether there is value in closing the gaps.
- ii) Costing of specialist or bespoke operations to inform or augment PCT costing
- jj) Providing advice on specialist operations and viability of those operations

2. General constraints on how the *Contractor* provides the works

WI 201 General constraints

The working hours shall be limited to those noted under the Minimum Technical Requirements.

The *Project Manager* shall arrange access to the site. The *Contractor* shall inform the *Client* of their access requirements.

The *Contractor* is to maintain safe access routes for public, local landowners, properties and businesses during the contract period.

The *Contractor* shall not gain access to any occupied premises or third-party land without the prior written agreement of the *Client's* Estates Team.

Use of the Site – undertake site visits to collect information needed to provide the *works*.

Access to the Site – via public highways. Agreement to be sought of relevant landowners via EA Estates.

The *Contractor* does not disclose information in connection with the *works* except when necessary to carry out their duties under the contract or their obligations under the contract

The *Contractor* may publicise the services only with the *Client's* written permission.

WI 202 Security and protection on the site

When attending site, The *Contractor* shall comply with relevant legislation and EA's constructing a Better Environment, Safety, Health, Environment and Wellbeing (SHEW), Code of Practice (CoP).

WI 203 Security and identification of people

The *Contractor* shall comply with relevant legislation, their own, and EA's mandatory security and vetting procedures.

WI 204 Protection of existing structures and services

Existing structures

The *Contractor* shall repair any structure or service damaged by *Contractors* negligence and for any consequence of damage during the execution of these services, due to *Contractors* negligence

The *Contractor* shall only remove any fencing, gates or structures with the prior approval of the Project Manager. The *Contractor* shall record the location of any third-party property (e.g. fences and gates etc.) prior to removal and any replaced or reinstated shall be recorded on the as-constructed drawings.

Existing services

The *Client* shall obtain services data from utility companies and shall ensure services data is requested from relevant landowners. The *Contractor* shall

assist the *Client* in identifying services for the works and for the future stages of the project (i.e. detailed design and construction).

Public Rights of Way (PRoW)

The *Contractor* shall advise the Project Manager on any potential requirements for temporary Public Rights of Way diversions where required to accommodate their *works* areas. The *Contractor* shall plan their method of working to manage and minimise PRoW diversions. The *Client* shall be responsible for obtaining all approvals for PRoW diversions from the relevant authority following request from the Contractor.

WI 205 Protection of the works

N/A

3. Contractor's design

The Contractor shall not be required to undertake any design.

4. Completion

WI 401 Completion definition

The following are absolute requirement for Completion to be certified, without these items the *Client* is unable to use the *works*:

- Deliverables as detailed above.
- Population of the *Client's* latest version of the Project Cost Tool, or its successor
- Transfer to the *Client* databases of BIM data
- Delivery of the Final Carbon Report

WI 402 Correcting Defects

Procedures for access for the correction of any Defects and process for liaison with the *Project Manager*. The *Contractor* shall inform the *Project Manager* of defects in need of correction.

WI 403 Pre-Completion arrangements

Prior to any of the scope being offered for Completion the *Contractor* shall arrange a joint inspection or review with the *Supervisor, Project Manager, Client* (scheme Project Manager) QCE and Senior User.

WI 404 Take over

Not applicable

5. Programme

WI 501 Programme Requirements

The delivery programme shall be provided in native file format, Microsoft Project Professional 2016 and PDF file formats.

The programme complies with the requirements of Clause 31.2 and also includes alignment and submission of the BEP and Master Information Delivery Plan (MIDP).

WI 502 Programme Arrangement

The *Contractor* shall input as required to the integrated whole life programme for the project. The *Project Manager* remaining accountable for the programme.

Provide a draft methodology to support the draft construction element of the integrated whole life programme

WI 503 Methodology statement

None

WI 504 Work of the Client and Others

The order and timing of the work of the *Client* and Others to be included in the programme and information to be provided. Refer as necessary to sections WI 901 and WI 902.

WI 505 Information required

W401 refers, required by contract end date

WI 506 Revised programme

The *Contractor* shall provide a revised programme as required to ensure that the version provided at the end of this contract is the most up to date

6. Quality management

WI 601 Samples

State the materials and samples required including any procedures for submission and acceptance.

The *Contractor* shall take samples and submit for testing as defined in any GI scope produced by the appraisal consultant.

WI 602 Quality Statement

None

WI 603 Quality management system

State any requirements for a quality management system, including accreditations or legislative standards.

The *Contractor* shall comply with their own quality management system.

WI 604 BIM requirements

The BIM Information Manager is the *Client* Project Manager

State any requirements for a BIM data to be collected.

The *Contractor* shall collect and provide all data in accordance with the *Client's* BIM standards.

7. Tests and inspections

8. Management of the works

WI 801 Project team – Others

The project team are:

Client – Environment Agency

Project Manager – EA PCM project manager.

Site Supervisor & EcOW – Provided as required by *Client*

Design Consultant – Atkins

WI 802 Communications

The *Contractor* shall engage in the project team to assist in realising the objectives of the project stage. Specifically the *Contractor* shall attend / engage in:

- Attending all weekly and monthly programmed meetings as required by the Project Manager
- Reporting requirements (monthly progress reports detailing expenditure to date, forecast to completion, work undertaken in last month and work planned in next month)
- Other ad-hoc meetings either via Teams, in person or on site.

9. Working with the *Client* and Others

WI 901 Sharing the Working Areas with the *Client* and Others

The *Contractor* shall coordinate and co-operate with the appraisal consultant who may occasionally use the Working Area (for GI) to deliver their services.

WI 902 Co-operation

The *Contractor* shall co-operate with the appraisal consultant and the *Project Manager* at all times, together with all other members of the project team.

WI 903 Co-ordination

The *Contractor* shall co-ordinate activity with the *Client*, *Project Manager* and appraisal consultant.

WI 904 Authorities and utilities providers

The *Contractor* will assist in the identifications of *works* to be carried out by the authorities and utilities providers.

WI 905 Diversity and working with the *Client*, Others and the public

- Consider the following and document how they are addressed on this contract:
- The Contractor shall consider the following in delivery of the works
- **Public:** how to effectively engage with, and how they perceive us, the diverse public throughout projects?
- **Project team:** how to create an inclusive environment for our project team?
- **Framework:** identify opportunities to support diverse workforces on our projects across our organisations.

10. Services and other things to be provided

None

11. Health and safety

The *Contractor* shall comply with relevant legislation and EA's constructing a Better Environment, Safety, Health, Environment and Wellbeing (SHEW), Code of Practice (CoP).

The *Contractor* shall:

- a) Provide guidance and advice that the following documents (produced by the *Client*) are comprehensive and provide the best information available at this stage, inputting as required, to include suitable assurance for each of the following documents:
Hazard Plan, Buildability Statement, desktop services searches, Pre-Construction Information Pack, Design Statement, Environmental Action Plan, and Construction Method in the EIA, Information Delivery Plan, and Carbon Reporting.
- b) Provide comprehensive advice on proposed options such as the impact of potential relevant permissions and consenting application processes including related programme considerations;
- c) Provide the logistics and practical considerations for the design elements, including for the use of supply chain engagement, temporary works, carbon costs, example materials, site compound locations, access constraints, construction logistics, community safety, procurement and sourcing options;
- d) Consider the impact on services.
- e) Champion SHEW, wider sustainability matters and challenging assumptions where applicable.

12. Subcontracting

It is a requirement for any subcontracting that the *Contractor* remains responsible for all the services

Acceptance procedures

There are no additional constraints above CDF framework agreements on acceptance.

13. Title

N/A

14. Accounts and records (Options C and E)

Additional Records

The *Contractor* shall keep but are not limited to the following additional records:

- Forecasts of the Fee (Forecasts are to include, but not be limited to costs to date, costs to completion including detailed breakdown of staff, any sub-contractors and major material items)
- Cost reports
- Timesheets and site allocation sheets
- Equipment records

The format and presentation of records to be kept are to be accepted by the *Project Manager*

Client's work specifications and drawings

WI 1701 *Client's work specification*

None

WI 1702 Drawings

None

WI 1703 Standards the *Contractor* will comply with

The *Contractor* should carry out their work using the following guidance.

Ref	Report Name	Where used
	Project Cost Tool	Costs
	Sustainability Measures Form	
	Timber Policy Documents	
	300_10 SHE handbook for managing capital projects	
	300_10_SD27 SHE Code of Practice	
	Carbon Planning Tool	