

6 Environmental Assessment

- 6.1.1 The *Consultant* shall confirm in the activity schedule the expected environmental outputs agreed through engagement with NEAS. The activities identified shall take into account proportionality whilst supporting the achievement of the *Client*'s wider aspirations.
- 6.1.2 The *Consultant* shall give due consideration of the environment and sustainability risks and opportunities throughout the design evolution of the project to maximise the delivery of *Client* and project objectives.
- 6.1.3 The *Consultant* shall ensure that the project level assessment sits within the context of any previous strategic environmental assessment and supporting information for the area and brings forward all relevant information and conclusions.
- 6.1.4 The *Consultant* shall establish and understand the baseline and the legal and policy context to identify the key environmental/sustainability risks and opportunities. This shall support the options appraisal and justify the need for any future environmental assessment activity.
- 6.1.5 The *Consultant* shall report the findings of the scoping exercise as required which will form an Appendix to the OBC with relevant summary details incorporated into the relevant section(s) of the OBC main text.
- 6.1.6 AD: The *Consultant* shall report on the CEEQUAL assessment in accordance with the hub workload plan.
- 6.1.7 AD: The *Consultant* shall engage all relevant environmental consultees (internal and external) (to the agreement of the *Client*) in a scoping consultation process to inform scheme development and EIA scoping opinion (if it is identified that the project constitutes EIA development). The *Consultant* shall undertake scoping in parallel to and integrated with the options development process in order to ensure that environmental information and environmental stakeholder engagement influences the development, appraisal and selection of options. The *Consultant* shall identify opportunities for the scoping consultation process to align with the stakeholder engagement plan for internal and external stakeholders.
- 6.1.8 AD: The *Consultant* shall scope the preferred option to set out the terms of reference for the assessment phase of the project. The *Consultant* shall undertake this in accordance with the Minimum Technical Requirements, 801_14.
- 6.1.9 AD: For projects requiring a non-statutory Environmental Report, the *Consultant* shall record the scoping process and environmental and sustainability assessment methodology for the preferred option in a Preliminary Environmental Information Report. The Preliminary Environmental Information Report shall be proportionate and include the environmental information required to support the Outline Business Case submission. Prior to any external consultation, the *Consultant* shall make provision for and incorporate comments from a consultation with internal stakeholders.

Heritage:

- 6.1.10 The *Consultant* shall finalize the archaeology desk-based study started through the pre-OBC contract
- 6.1.11 The *Consultant* shall collaborate with the EA to develop a scope for archaeological/geoarchaeological monitoring to inform the contractor in appointing an archaeological contractor, and review of the archaeological report
- 6.1.12 The *Consultant* shall provide support the *Client* through early engagement with Conservation officers (2 No 2h online meetings)

Landscape:

- 6.1.13 AD: Prior to the commencement of any landscape product, the *Consultant* shall prepare a product description for agreement with the *Client*. The *Client* shall provide an outline template for the product description.
- 6.1.14 AD: The *Consultant* shall develop an Initial Landscape Appraisal, an Indicative Landscape Plan (including high-level concept options), and input to the options appraisal and preferred option in accordance with the products sets out in the MTR 801 14 SD02 Landscape and Environmental Design. **There are no exclusions.**
- 6.1.15 AD: The *Consultant* shall undertake Arboricultural Tree Surveys to an appropriate and proportionate level of detail to inform the options development and appraisal

Preliminary Ecological Appraisal (PEA):

- 6.1.16 AD: The PEA shall inform the development of options, including the application of the mitigation hierarchy with respect to potential ecological impacts. Any requirements for further ecological surveys and assessments shall also be identified and an appropriate programme provided for informing the detailed design
- 6.1.17 AD: The PEA and the Biodiversity Net Gain (BNG) assessment shall be mutually supportive, with the PEA establishing the scheme's overall policy context, baseline and ecological appraisal.

Biodiversity Net Gain (BNG):

- 6.1.18 AD: The *Consultant* shall endeavour that the scheme design delivers biodiversity net gain in line with the Sustainability Chapter of the Midlands IDT Annual Plan. Biodiversity net gain requirements associated with Local Planning Authority requirements shall also be considered by the *Consultant*.
- 6.1.19 AD: The *Consultant* shall ensure that biodiversity losses and gains of the likely options are considered based on the approach set out in the Defra Biodiversity Metric 3.0 (or subsequent updates), supporting technical guidance (e.g. Biodiversity Metric 3.0 User Guide and other supporting documents and subsequent updates) and good practice principles (CIEEM)
- 6.1.20 AD: The *Consultant* shall undertake a baseline Biodiversity Unit calculation (BNG baseline assessment), ideally in advance of the short list option evaluation, for all habitat areas, hedgerows and watercourse length with the potential to be impacted by the likely options. Opportunities for achieving net gain shall also be identified. The survey extents shall be agreed with the *Client*. All assumptions in the calculations shall be clearly set out. Where relevant, survey findings shall inform other environmental assessments e.g. WFD.
- 6.1.21 AD: The *Consultant* shall arrange and lead on a workshop to present the findings of the baseline Biodiversity Unit calculation to the *Client* and Lot 2 contractor and other relevant internal stakeholders. This shall be programmed so that it can inform the options appraisal, identification of alternative solutions and support stakeholder engagement

6.1.22 AD: The *Consultant* shall utilise the assessment of baseline Biodiversity Units to inform the short list options appraisal, including the evaluation of alternative solutions and providing the rationale for the selection of the preferred option. The *Consultant* shall agree with the *Client* an appropriate approach for presenting and reporting on this iterative process. The *Consultant* shall set out key implications for BNG for all retained options in the options appraisal report and appraisal summary table (AST).

6.1.23 AD: The *Consultant* shall calculate and report on a post development biodiversity unit calculation (BNG post development assessment) utilising the baseline assessment and the identified preferred option. This assessment shall demonstrate the likely change in biodiversity as a result of the proposed scheme and identify options for habitat retention, enhancement and creation in order to meet planning requirements and the BNG goal of the Sustainability Chapter of the Midlands IDT Annual Plan. The assessment shall demonstrate the rationale for selecting the preferred option with regard to BNG and also securing the best long term outcomes for biodiversity. The *Consultant* shall ensure the results of the assessment, including recommendations for mitigation and compensation, are taken forward in all relevant environmental deliverables.

6.1.24 AD: Where the assessment identifies the need for off-site areas (off-sets), the *Consultant* shall quantify the required scale of intervention. The *Client* shall use this information to see where the BNG opportunities are available within the FCRM programme within that county.

6.1.25 AD: The *Consultant* shall ensure indicative landscape proposals and costings (on site [area identified in SOC] and any relevant offsets) for the preferred option shall be compatible with utilising the Defra Biodiversity Metric 3.0 (or subsequent updates), including all relevant habitats (terrestrial and aquatic) and their target condition.

6.1.26 AD: An initial estimate of the cost of undertaking the BNG works (on site and any required offsets) shall be provided by the *Client's* Cost and Carbon Lead using outline information provided by the *Consultant*. The *Consultant* shall provide sufficient information on the BNG work to allow a robust cost exercise to be undertaken.

6.1.27 AD: The BNG assessment undertaken for the preferred option shall be produced so that it can be revisited and refined as the design is finalised through detailed design.

Habitats Regulations Assessment:

6.1.28 AD: The *Consultant* shall undertake a Habitats Regulation Assessment stage 1 screening for the preferred option and any pre construction works (e.g. site investigations) that have the potential to European sites.

Water Framework Directive (WFD) assessment:

6.1.29 AD: The *Consultant* shall undertake a proportionate Water Framework Directive (WFD) assessment to ensure compliance with the regulations and to identify any risks that the developing scheme may pose to WFD objectives. The *Consultant* shall undertake a WFD baseline review, including waterbody definition and understanding WFD mitigation measures; and a WFD screening assessment. (If a WFD scoping assessment or a WFD detailed assessment is required; it will be treated as a Compensation Event).

6.1.30 AD: The *Consultant* shall actively seek opportunities for enhancement to water body status.

CEEQUAL:

- 6.1.31 AD: The *Consultant* shall report on the CEEQUAL assessment in accordance with the hub workload plan. Where not already undertaken at the SOC stage, the NEAS Final Screening Determination Note with CEEQUAL scope to assessment issue level will be completed and shared with the project team.
- 6.1.32 AD: The *Consultant* shall provide a qualified CEEQUAL Assessor to undertake the assessment process on the project. There are currently 10 Assessment Issues scoped in for the project which are:
- 1.3 Responsible Construction Management
 - 2.2 Flooding and Surface Water Runoff
 - 3.1 Consultation and Engagement
 - 4.3 protection of Biodiversity
 - 4.4 Change and Enhancement of Biodiversity
 - 5.1 Landscape and Visual Impact
 - 6.1 Water Pollution
 - 6.2 Air Noise and Light Pollution
 - 7.2 Whole Life Carbon Emissions
 - 8.2 Construction Logistics
- 6.1.33 AD: The *Consultant* Assessor shall develop the NEAS CEEQUAL scope to assessment criteria level for agreement with the *Client*. The *Consultant* Assessor will hold a scoping and evidence start-up workshop with the project team (As a minimum the Project Manager, Senior User, NEAS Environmental Lead, Arup Environmental Lead). The *Consultant* Assessor will liaise with the NEAS Programme CEEQUAL Assessor, the NEAS Environmental Project Manager and maintain the evidence tracker. Alongside the assessment, the *Consultant* Assessor shall be responsible for uploading evidence and including written narrative, to the BRE portal at key project gateways. The *Consultant* Assessor shall provide supporting information to the *Client* when handling verifier consultation. The *Consultant* Assessor will provide quarterly indicative CEEQUAL scores for the project and document these in the OBC report.
- 6.1.34 AD: The *Consultant* CEEQUAL Assessor is an integrated member of the project team attending monthly progress meetings, key project workshops including but not limited to options/design and risk, and championing sustainability across the project team.'

7 Option Development

The Consultant shall develop the existing options appraisal identified in the SOC document. Following this screening, the Consultant shall review the short list of viable options included in the SOC and submit any additional options for the Client's approval. On the agreement of the Client, the Consultant shall assess in detail these options for technical, environmental and economic suitability, as discussed in the relevant sections of this brief, utilising the evidence and data collated as part of this commission.

- 7.1.1 The Consultant shall undertake an options appraisal, which will include a review of the previous work, to prepare a high-level long list of options. The long list shall not be constrained by previous work and will be agreed with the Client at an options meeting, where the Client will invite representation from (add or delete as necessary) area FCRM, the ESE contractor's representative, NEAS, MEICA, Field Services and the Principal Designer. The Consultant shall screen and assess this long list of options for technical, environmental, sustainability, carbon and economic suitability, as considered appropriate.
 - 7.1.2 Following this screening, the Consultant shall prepare a short list of viable options for the Client's approval, giving reasons for including or excluding each of the long list options. The most sustainable option shall be included in the short list. On the agreement of the Client, the Consultant shall assess in detail these options for technical, environmental and economic suitability, as discussed in the relevant sections of this brief, utilising the evidence and data collated as part of this commission
 - 7.1.3 Options appraisal shall include engagement with the ESE contractor on pricing, buildability and maintainability and the Client including Field Services and Area FCRM.
 - 7.1.4 The Consultant shall analyse and appraise the carbon footprint of options as outlined in Section 11.
 - 7.1.5 The *Consultant* shall seek options that support the e:Mission 2030 sustainability targets
 - 7.1.6 The *Consultant* shall use these outputs to propose a preferred option. The *Consultant* shall ~~facilitate design workshops,~~ attend risk workshops to support a project risk register with analysis in accordance with LIT 14847 Risk Guidance for Capital Flood Risk Management Projects
 - 7.1.7 The *Consultant* shall develop the business case for the preferred option and the outline design including provision of specification, drawings and documentation required for Early Supplier Engagement.
 - 7.1.8 The *Client* shall draft the scope for the next stage of the project (OBC-FBC) and the *Consultant* shall support the *Client* to produce the scope
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8 Stakeholder Engagement

- 8.1.1 The *Consultant* shall review and update and maintain a stakeholder engagement plan in accordance with the EA guidance "Working with Others" including agreement of key stakeholders with discussion with the *Client*. The *Consultant* shall ensure that the results from the stakeholder engagement informs the appraisal. The *Consultant* shall keep a record of all scheme engagement and communication.
- 8.1.2 Monthly circulation of updated communications record (as specified in 8.1.1) at progress meetings.
- 8.1.3 The *Consultant* shall provide technical support, prepare information for and attend a key stakeholder meeting as well as preparing information and reviewing external communications prepared by Others (e.g. quarterly newsletters).
- 8.1.4 The *Client* will arrange and advertise XX no. public meeting/workshops. The *Consultant* shall provide technical support, prepare information for input into the consultation documents and prepare site plans and typical outline design drawings for public display. Attendance at these meetings shall include the *Consultant* project manager, environmental lead and other roles as necessary.
- 8.1.5 The *Consultant* shall provide technical support, prepare information for input into the consultation documents and prepare site plans, typical outline design drawings and visualisation for public display at the above meetings (8.1.3 and 8.1.4). Attendance at these meetings shall include the *Consultant* project manager and the environmental lead and other roles as necessary. Any further public or partner meetings / workshops will be managed by Compensation Event.
- 8.1.6 The *Consultant* shall consider the following and document how they are addressed on this contract:
- Public diversity in engagement and perception of the project team.
 - Accessibility.
 - How inclusive environments are created for the project team.
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9 Health and Safety

- 9.1.1 Health, Safety and Wellbeing (HSW) is the number one priority of the *Client*. The *Consultant* shall promote and adopt safe working methods and shall strive to deliver design solutions that provide optimum HSW to all.
 - 9.1.2 The *Consultant* shall follow and comply with the requirements outlined in the Safety, health environment and wellbeing (SHEW) Code of Practice ([LIT 16559](#))
 - 9.1.3 The *Consultant* shall supply designer risk assessments, drawings and any other data required to fulfil their duties under CDM
 - 9.1.4 The works on site included in the geotechnical section will be subject to notification to the HSE. Appraisal work to outline design shall be treated as if it was notifiable
 - 9.1.5 AD: The *Consultant* shall fulfil the Principal Designer (PD) role and discharge the duties in accordance with the requirements of regulations 8, 9, 11 and 12 of the Construction Design Management Regulations 2015
 - 9.1.6 AD: The PD must be a lead or active designer and can either demonstrate relevant Skills, Knowledge and Experience to undertake the role or have access to relevant support to discharge their duties.
 - 9.1.7 AD: The PD will demonstrate their compliance with their CDM duties by preparing and updating the Pre Construction Management Tool on a monthly basis (or more frequently for start of construction activities) and liaising with the CSF Resident Principal Designer.
 - 9.1.8 AD: The PD will identify and track significant risks, scrutinise the quality of treatment of risks with regards to the principals of prevention, co-ordinate other designers' mitigation and handover designs which can be constructed safely.
 - 9.1.9 AD: The PD shall ensure there is effective liaison and coordination between phases with the Principal Contractor.
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10 Business Case Submission

- 10.1.1 The *Consultant* shall aggregate all of the work undertaken from this commission into a business case document the Outline Business Case The *Consultant* shall request information required to complete the Commercial, Financial and Management cases from the *Client* and include these requests in the programme The format of this document and guidance on the contents is detailed in Write a Business Case LIT 55124 ([Link](#)) and the Business Case templates
- 10.1.2 The *Consultant* shall be responsible for dealing with responses to queries during the approval process and any resubmission required
- 10.1.3 The OBC assurance is to be in accordance with the *Client's* submission programme for the National Project Assurance Service (NPAS) The *Client* shall be kept up to date of progress and submission dates in order that the delivery of this to the review team can be programmed and a place booked at the appropriate review meeting.
- 10.1.4 This section of the study shall conclude with the final approval of OBC using latest EA Guidance including all appendices and FSoD approval following submission to NPAS or LPRG.
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11 Carbon

- 11.1.1 Carbon emissions shall be identified and assessed on a strategic whole life basis (cost and benefit) in the economic appraisal of options and also as a specific operational target (carbon budget) of the *Client*
- 11.1.2 The carbon budget for the project has been set in the SOC document. The *Consultant* is required to work with the *Client* and the ESE contractor to reduce the project carbon footprint by 40% and look for alternative materials and construction methods see Carbon Optimisation Report for OBC and Final Carbon report for FBC.
- 11.1.3 The *Consultant* shall demonstrate how they have met the corporate requirement for carbon reduction using the Carbon Tool, 'ERIC' and:
- Identifying carbon differentials between alternative solution options at appraisal stage.
 - Ongoing updates to the carbon calculator and use of the carbon calculator to inform design and construction methodology decisions.
 - Completion and submission of the carbon calculator at the pre-defined stages.
 - Inclusion of a whole-life carbon appraisal to ensure optimisation of lowest carbon in short-listed and preferred options in OBC.

12 General

No additional requirements further to the other sections of this scope

13 Relevant guidance

The *Consultant* shall deliver the *service* using the following guidance:

Ref	Report Name	Where used
LIT 16559	Safety, health environment and wellbeing (SHEW) Code of Practice	Throughout
183 05	Data management for FCRM projects	Mapping and modelling
379 05	Computational Modelling to assess flood and coastal risk	Modelling
LIT 14847	Risk Guidance for Capital Flood Risk Management Projects	Option development
OI 120_16	Whole-life Carbon Planning Tool	Option development
LIT 14284	Whole Life (Construction) Carbon Planning Tool User Guide	Option development
	Access for All Design Guide	Option development
	Project Cost Tool	Costs
LIT 12982	Working with Others: A guide for staff	Consultation & Engagement
Gov uk	Appraisal Guidance Manual	OBC
672 15 SD03	Business case template 5 case Model	OBC
672 15 SD02	Short Form Business case template	OBC
LIT 4909	Flood and Coastal Erosion Risk Management appraisal guidance (FCERM-AG)	OBC
	Flood and Coastal Erosion Risk Management: A Manual for Economic Appraisal (the 'Multi Coloured Manual')	OBC
OI 1334_16	Benefits management Framework	OBC
Gov.uk	Partnership Funding Calculator Guidance	OBC
LIT 15030	The Investment Journey	OBC
LIT 55124	Write a Business Case	OBC
LIT 14953	FCRM Efficiency Reporting capital and Revenue	OBC
LIT 12280	Lessons Log template	OBC
LIT 55096	Integrated Assurance & Approval Strategy	Approvals

14 Requirements of the Programme

- 14.1.1 The *Consultant* shall provide a detailed programme in Microsoft Project format version 2016 and in PDF format meeting all requirements of CI 31 of the Conditions of Contract.
- 14.1.2 The *Consultant* shall provide a baseline programme for the project start up meeting and shall update the programme monthly for progress meetings with actual and forecast progress against the baseline. The programme shall also include alignment and submission of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP). The *Consultant* shall submit programmes using POL.
- 14.1.3 The programme shall cover all the activities and deliverables in the project, and include all major project milestones from commencement to the end of the reporting, consultation and approvals stage. The *Consultant* shall identify all activities to be undertaken by other parties using a different colour scheme in the programme.
- 14.1.4 The programme shall include review and consultation periods for drafts, scoping letters, statutory consultation etc. The *Client* requires 10 working days to review products.
- 14.1.5 The programme shall identify time risk allowance on the activities and float.
- 14.1.6 The *Consultant* shall produce a Programme such that the following milestone dates are achieved:

Date	Event
January 2023	Draft OBC for Client review

- 14.1.7 The following are absolute requirements for Completion to be certified:
- Population of the *Client's* latest version of the Project Cost and Carbon Tool, or its successor
 - Transfer to the *Client* of BIM data
 - Clause 11.2(2) work to be done by the Completion Date
- 14.1.8 AD: The *Consultant* shall produce and manage and end to end delivery programme for the scheme in addition to the contractual programme. The *Consultant* shall work with Jackson Civil Engineering to inform the construction phase of the end to end programme. This programme shall be reviewed and updated on a monthly basis.

15 Services and other things provided by the *Client*

- 15.1.1 Access to Environment Agency systems and resources including:
- Asite
 - FastDraft
 - Collaborative Delivery Community SharePoint access

- AD: POL (Projects online)

15.1.2 Letter of Appointment of Principal Designer.

15.1.3 Site access authorisation letter(s)

15.1.4 Previous studies listed in Section 1.2.1. The *Client* will provide the previous studies within two weeks of contract award

16 Data

16.1.1 Requirements for the handling of project data are covered by the framework schedules.

17 *Client's* Advisors

17.1.1 The *Client* for the Contract is represented by the Programme & Contract Management (PCM) team, primarily the EA Project Manager, acting as the *Service Manager*, and in their absence the Project Executive. Instructions may only be given by these staff.

17.1.2 The *Client* has a number of advisory departments. Instructions will only be deemed enacted from them when they are confirmed by an Instruction from the *Client*. These departments include Asset Performance, Partnership & Strategic Overview, NEAS, etc.

17.1.3 The *Client's* organisation has a regulatory function. Communications from the Environment Agency in its capacity as a regulator are not to be confused with communications as the *Client*.

18 *Client* Documents the *Consultant* Contributes to

18.1.1 The *Client* maintains several project documents, the *Consultant* is required to contribute to these *Client* owned documents:

- Project Risk Register.
 - Project Efficiency CERT Form.
 - Scheme Lessons Learnt Log.
 - Cost and Carbon Tool (CCT).
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Appendices

Appendix 1 – BIM Protocol

The *Consultant* shall adhere to the Environment Agency's Employers Information Requirements (EIR) framework level minimum technical requirements

All *Client* issued information referenced within the Information Delivery Plan (IDP) requires verifying by the *Consultant* unless it is referenced elsewhere within the Scope

<https://www.asite.com/login> home

The *Consultant* shall register for an Asite Account and request access to the project workspace to view the IDP.

Appendix 2 – Modelling Technical Scope

Insert the Modelling Technical Scope created using the Quick Scope Writer, referenced in Section 4

Appendix 3 – Add extra appendices as required
