22503 ECOLOGICAL SERVICES FRAMEWORK 3 (EcoSF3)

SCHEDULE B PROJECT FORM AND CONFIRMATION OF INSTRUCTIONS
PART 1
PROJECT DETAILS, SPECIFICATION AND EVALUATION CRITERIA

Project title: North Tess Nature Park

Bravo project ref (if applicable): [redacted]

Date: 22/07/2022

Contracting Authority (Environment Agency; Natural England; Defra etc)	Environment Agency		
Project Manager:	[redacted]	**Phone number:**	[redacted]
Budget holder:		**Cost code:**	
Commercial Contact (if applicable):		**Email:**	
Project Start Date	12/08/2022		
Project Completion Date	30/06/2023		
For any projects over £10k, full competition is required (i.e. all suppliers on the Lot invited to quote).	**Direct Award**		**Mini-comp** X
Call off from Lot number (please tick)	1	2	3	4 x
Proposal return date: ***(no less than 10 working days from current date)***	22/07/2022		

Evaluation criteria:		
Contractors: Failure to meet the minimum score threshold stated will result in the bid being removed from the process with no further evaluation regardless of other quality or price scores.		
Price	**Weighting**	**50%**
Quality	**Weighting**	**50%**
Quality Sub-Criteria Weightings:		
Approach & Methodology		**50**
Proposed Staff (inc Pen Portraits) and Contractor's experience/accreditations.		**20**
Project Management (including project plan)		**20**
Sustainability Considerations (e.g. Travel management, reduction of carbon footprint, bio-security etc.)		**10**

Please detail the Contractor's required Limitation of Liability. If no sum is stated, the Contract Price for the Services performed or to be performed under the Contract or five million pounds whichever is the greater will apply.

1. Description of work required – overall purpose & scope (including reporting requirements)

The Tees Estuary is one of the most heavily modified and developed estuaries in the UK, with less than 10% of the original intertidal habitats remaining. From 1740, large areas of saltmarsh have been enclosed to form freshwater grazing marsh. However, it has been the industrialisation and systematic land take between 1830 and 1970s that has resulted in the majority of the habitat loss. It is estimated that the Tees Estuary has lost over two thirds of its intertidal habitat through waste disposal and infilling over the many years of modification, some 3,000ha, or 30km^2.

The few remaining natural areas of the estuary are bounded by flood defences, industrial quaysides and tidal barriers. These features all prevent natural expansion or contraction of the estuary, in response to sea level changes. This coastal squeeze effect will further reduce the extent and variety of intertidal habitat unless action is taken.

The North Tees Nature Park (NTNP) Project is centred on the restoration of intertidal habitat on the Tees estuary edge, and is part of the Tees Tidelands Programme. The Estuary was infilled through the deposit of enclosure walls of waste slag from the iron and steel industry. The areas behind these slag walls were then infilled with natural intertidal sediment, slag and potentially other waste materials.

These slag walls are relatively steep and reach an elevation above Highest Astronomical Tide (HAT). The result is a very abrupt estuary edge with a loss of the natural progression of intertidal habitats from mudflats through saltmarsh to marsh. In the case of this project mudflat extends from the Tees navigation channel training wall to the slag bank of the estuary edge. Sea level rise will reduce the extent of this mudflat and the slag wall will prevent any inland movement of habitat.

The Project will look to assess the potential to lower land to create a terrace of intertidal habitat where currently there is a steep bank of waste slag. The Project will allow the natural migration of intertidal habitat as sea levels rise and help address some of the impacts of climate change.

The Teesside Environmental Trust (TET) currently own a 1km strip of land (approx. 30m width) along the estuary edge, between the River Tees and Augean Port Clarence landfill. Augean have 25ha immediately inland from the TET site set aside as wildlife compensation for the landfilling activity. Both present opportunities to reconnect the River Tees to the floodplain.

[redacted]

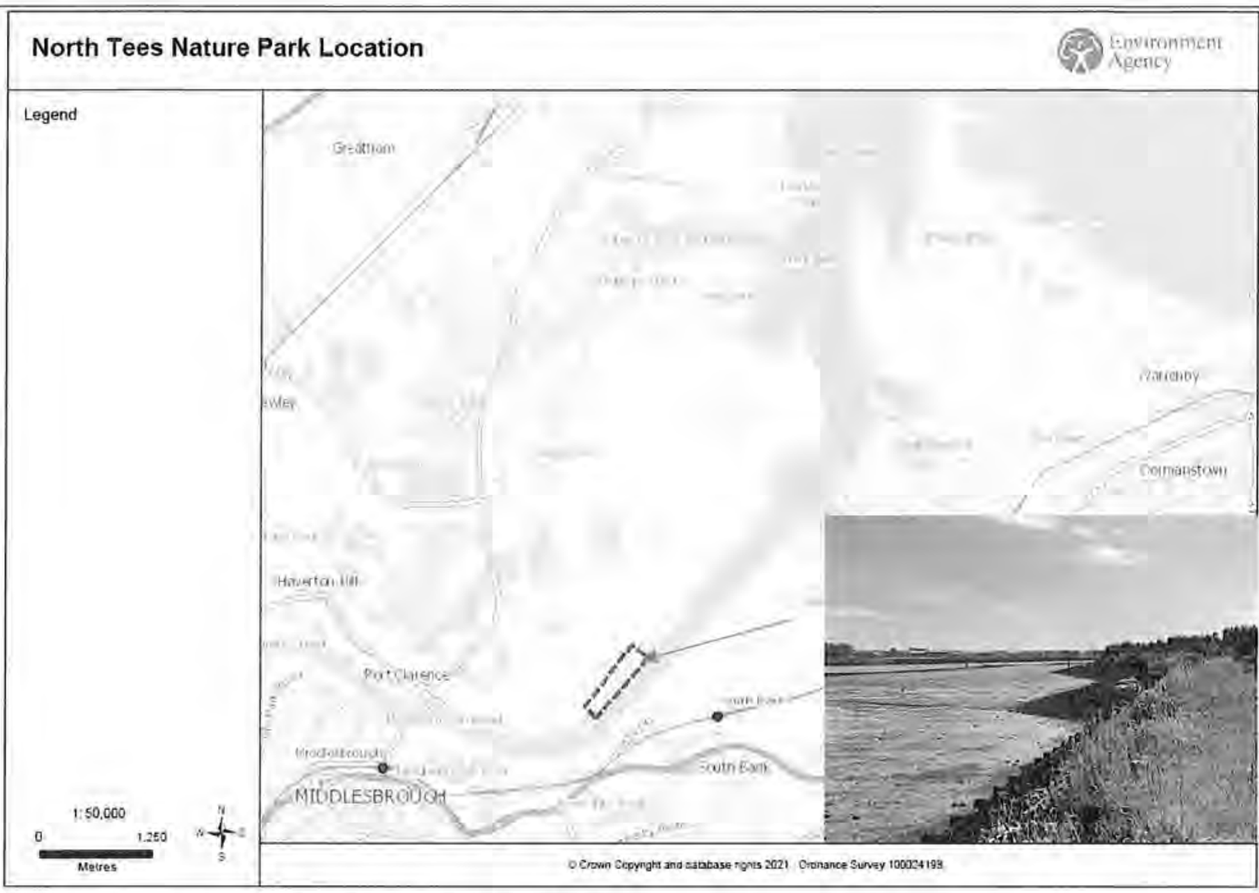

Figure 1: North Tees Nature Park Location

The Supplier will:

1. Familiarise themselves with the hydraulic model and all studies produced, relating to the North Tees Nature Park. This is to be provided by the employer.

2. Use the model to run scenarios based on, but not limited to, the short list of options as defined in the Strategic Outline Case (SOC). The Supplier shall review the options before commencing modelling and propose any changes and/or additional options to be incorporated for discussion and acceptance with the Environment Agency. This review will include a dedicated meeting with EA stakeholders to discuss the proposals. Options listed as follows;
    a. Option 1 - Do Nothing
    b. Option 2 – Do Minimum
    c. Option 3 – Do Something (excavate below (MHWS) on TET land)
    d. Option 4 – Do Something (excavate below (MHWS) on TET and Augean land)

3. Specify the changes made to the hydraulic model to run the scenarios, to ensure the model achieves the required standards for future utilisation. All modelling works shall be undertaken in line with the requirements of the Environment Agency's NEC4 Minimum Technical Requirements for Modelling Version 2.
4. Model runs to include a full range of scenarios to inform the outline design and BNG assessment.

5. Produce a Preliminary Environmental Information Report – PEIR, using the existing environmental information available and identify the need for further surveys/assessments.

6. Appraise options using DEFRA Biodiversity Metric 3.0, to calculate the biodiversity baseline and forecast the biodiversity gains resulting from the proposed changes. The Supplier should utilise the comments box within the metric to detail reasoning behind the condition score.

7. A UK Habitat classification (UK Hab) assessment should be undertaken within the red line boundary of any project where BNG is to be applied – This should be done as an alternative to a Phase 1 habitat survey

8. All surveys must be undertaken by suitably qualified and experienced ecologists. We expect a minimum of one full member of CIEEM to be present.

9. All surveys must follow UK Hab assessment guidelines (https://ukhab.org/) and latest BNG technical guidance (http://publications.naturalengland.org.uk/publication/5850908674228224)

10. The condition of the habitat surveyed must be noted

11. The habitat should be compartmentalised so similar habitats with different conditions in the same area can be clearly identified

12. A map should be produced displaying the habitat types present and the condition of these habitats. Separate maps for habitat condition and distinctiveness can be produced aid in understanding the site

13. The comments box within the BNG 3.0 Metric tool should be utilised to explain the reasoning behind the condition score (i.e. invasive species present, water quality in pond appears poor, lack of under storey to woodland etc)

14. The Supplier will provide recommendations on how each unit should be managed or uplifted

15. Further BNG assessments will be required if offsite enhancement, creation, or offset is likely

16. The Supplier will produce a map displaying the habitat types present and the condition of these habitats.

17. Complete options appraisal in line with the FCRM Appraisal Guidance to include monetisation of FCRM and Ecological services benefits. The Contractor shall develop costs for delivery of the various options and produce a DEFRA FCRM GiA Partnership Funding Calculator for each of the options.

18. Facilitate a preferred option workshop, in which the Supplier will detail each of the short-listed options, the advantaged and disadvantaged of each, with the objective of determining a preferred option.

19. Complete outline design (drawing with design assumptions) and outline costs for preferred option including a method for managing the existing outfalls and the existing right of way.

20. Consider innovative approaches to reducing waste and maximise the reuse of site won materials. This will be incorporated into the Suppliers designs.

21. Prepare an economic appraisal of the short listed options to include within the OBC.

22. Prepare the Outline Business Case – OBC for the North Tees Nature Park. The OBC will include economic and carbon estimates for each option, assessed to identify the preferred option.

23. The Supplier will produce a ground investigation specification early in their programme, both to inform the outline design and the Client of the soil's characterisation. The Supplier will discuss requirements of the GI specification with the EA's internal Waste Specialists. The EA will determine how to procure any intrusive investigation work. The Supplier is expected to interpret the factual outputs of the intrusive investigation and incorporate it into the optioneering and outline design process.

24. Surveys required to develop the preferred option and outline design will be undertaken by the Supplier as an additional item.

Other Services Required

[redacted]

a) The Supplier will attend a contract start-up meeting (via Microsoft teams) with the Environmental Agency PM to finalise the project scope and deliverables for the project.

b) The Supplier will attend monthly progress meetings and produce meeting minutes. They will also produce a monthly progress report, including details of completed works, delivery risks and provide a forecast of likely contract payments until completion.

c) The Supplier will provide a monthly updated programme (via Microsoft project and PDF format) in advance of the Environment Agency's PM monthly reporting deadlines.

d) The Supplier will attend monthly risk workshops to assist in populating a Risk Register for the project, that will be submitted with the OBC.

e)

f) The Supplier will actively seek efficient solutions and communicate any efficiency that could be claimed through the Agency's efficiencies reporting processes.

g) The Supplier will actively seek any low carbon solutions and will complete the Agency's carbon calculator for any preferred options identified.

h) The Supplier will contribute to completing the Sustainability and Carbon Stop Go tool, that is required to be submitted alongside the OBC.

i) The Supplier will undertake the role of Designer and Principal Designer under the Construction Design and Management Regulations (2015)

j) The Supplier shall be responsible for complying with copyright, including the procuring any licences required, relating to the use 3rd party data for the project.

k) The Supplier will be responsible for arranging any access required to undertake site visits in the study areas.

l) All meetings will be conducted in accordance with any Covid restrictions on working practices

m) The Supplier will be responsible for applying suitable quality assurance procedures at all stages of the project to ensure outputs are robust and to a high quality standard.

n) The Supplier will work in accordance with the EAs Minimum Technical Requirements (latest version)

Future work

- The current scope of works only requires the Supplier to progress the project to the OBC stage. Pending successful assurance and approval of the OBC, and Supplier's performance, further work may be instructed under the contract to progress the project to FBC. This is not to be currently priced for.

2. Information to be returned by the Contractor and the section of Part 2 the information should be provided in.

Approach and Methodology (weighted 50%) (including Health & Safety, Sustainability and Quality Assurance unless being evaluated separately):

- To identify the proposed methodology and to achieve the above stated outputs and confirm the deliverables. Will include; survey work, assumptions, exclusions.
- Details on how the options will be appraised using the analysis tools, that have been stated in the above sections. As well as communications with the Environment Agency.
- Details on the updating of the existing model, with the proposed scenarios. With the production of the key documents, these include OBC and PEIR.
- Details of how the cost will be developed for the various proposed options.
- The identification of the key risks to the project. With how they proposed to be mitigated. A risk summary table (with risk ownership) to be included in the proposal.

[redacted]

- Include in the risk summary the risk related to the ongoing Covid-19 pandemic and how it will be managed. From the point of view of business operation and continuity.
- Include the details of how the quality assurance will be applied to the final output and the project.

Project Management (weighted 20%) (including programme plan):

- The programme to include key milestones. Evidence to include sufficient detail, so a planned approach to delivering the various elements, and key points of the project can be met within the required timeframe.
- Include detail on regular reports and meetings.
- The project management should include an overview of the proposed reporting structure.

Project Staff (weighted 20%):

- Demonstrate appropriate skill and competency to deliver the required outputs identified in the Specification above and in Section 2 below.
- Identify previous relevant experience of undertaking similar projects.
- If subcontractors are being proposed, please provide the elements of the project that will be delivered by these

Sustainability (10%)

- Demonstrate how the Supplier will consider sustainability when assessing the short list of options, including the three pillars of sustainability, and incorporate this into their design.
- Demonstrate a good understanding of the use of the BNG metric tool, and how it will be applied to this project

2. Required skills / experience from the contractor and staff. Include any essential qualifications or accreditations required to undertake the work. Please provide details for any sub-contractors being used.

1. Project management
2. CDM competency
3. Stakeholder engagement
4. Experience of feasibility and design of solutions to create and restore habitat
5. Business case development
6. Experience appraising and delivering catchment scale/natural flood management solutions to FCRM and Environmental issues
7. Experience of scheme appraisal in line with FCRM and treasury guidance

Information to be returned by the Contractor in Part 2 Section 3

3. Proposed programme of work and payment table (Detailing specific tasks, key milestones, deliverables & completion date where appropriate) Payment schedule should detail the % amount that will be paid after delivery of each task.

Task no.	Task and deliverable	Completion date	Payment schedule
1	Attend contract start-up meeting Familiarisation with existing hydraulic model Review options and propose any changes and/or additional options, to be agreed with the EA		[redacted]

[redacted]

2	Produce a Preliminary Environmental Information Report (PEIR) using existing environmental information available and identifying the need for further surveys/assessments. Appraise options using DEFRA Biodiversity Metric 3.0 Produce a UK Habitat Classification (UK Hab) assessment Produce a map displaying the habitat types present and the condition of these habitats.		[redacted]
3	Facilitate a preferred option workshop Produce Ground Investigation Specification Produce Outline Design drawings for the preferred option		
4	Prepare and submit Outline Business Case		
5	Project Completion		

22503 ECOLOGICAL SERVICES FRAMEWORK 3 (EcoSF3)
SCHEDULE B PROJECT FORM AND CONFIRMATION OF INSTRUCTIONS

PART 2
TASK QUOTATION SHEET

To be completed by Framework Contractor			
Framework Contractor name		**AECOM Ltd**	
Contractor Project Manager name		[redacted]	
Contractor project manager phone number:	[redacted]	**Contractor project manager e-mail address:**	[redacted]

Note: Your proposal must not exceed 6 sides of A4 plus the Costs Proposal in Section 4 (unless otherwise indicated in project client's specification above). Attachments must not be included unless requested with the exception of a programme diagram and full cost schedule if you consider these would support your proposal.

Do not make or append Caveats and Assumptions in your proposal – any points of uncertainty must be raised as a clarification point prior to submitting the proposal. Where assumptions are to be made, these will be stated by the Authority's Project Manager.

1. Approach & Methodology

North Tees Nature Park (NTNP) Project is centred on the restoration of intertidal habitat on the Tees estuary edge, and is part of the Tees Tidelands Programme. The Estuary was infilled through the deposit of enclosure walls of waste slag from the iron and steel industry. The areas behind these slag walls were then infilled with natural intertidal sediment, slag and potentially other waste materials. The slag walls are indicated as being relatively steep and reach an elevation above highest astronomical tide. The result is a very abrupt estuary edge with a loss of the natural progression of intertidal habitats from mudflats through saltmarsh to marsh. In the case of this project mudflat extend from the Tees navigation channel training wall to the slag bank of the estuary edge. Sea level rise will reduce the extent of this mudflat and the slag wall will prevent any inland movement of habitat.
The Project will look to assess the potential to lower land to create a terrace of intertidal habitat where currently there is a steep bank of waste slag. The Project will allow the natural migration of intertidal habitat as sea levels rise and help address some of the impacts of climate change. The Teesside Environmental Trust (TET) currently own a 1 km strip of land (approx. 30m width) along the estuary edge, between the River Tees and Augean Port Clarence landfill. Augean have 25ha of land immediately inland from the TET site set aside as wildlife compensation for the landfilling activity. Both present opportunities to reconnect the River Tees to the floodplain.

Recurring tasks throughout development of the business case and outline design include Project Management (PM) comprising attendance at bi-weekly meetings and producing minutes (PM is discussed in more detail in Section 2), as well as Risk Analysis and Technical Investigations (including Geomorphology, Ecology and Modelling) which are discussed further below.

Inception Meeting – Our Project Manager and Project Director will attend an online start-up meeting after contract award to discuss the Scope of services to be provided to complete the OBC.

Gap Analysis - Following contract award we will review information provided by the EA, including the model and other available data as part of a Gap Analysis. This review will include the items below (note: potential additional work for each task is indicated in brackets noting that some of these may need to be undertaken during any subsequent detailed design phase).

- A review of survey information available (if any) and production of an overall utilities plan (further may be sought if this is not considered complete).
- A review of the Tees Tidal model.
- An initial review of known risks and further efforts that are required

We will make full use of the available data to minimise additional work required, recognising that in order to meet the delivery programme extensive new data collection may not be possible. We have assumed that the model of the River Tees will be robust and suitable for use without further data collection or model development. The model stability and suitability will be confirmed via sensitivity analysis and will then be used to simulate the impacts of remodelling the inter tidal zone on Habitat potential and flood extents, and subsequently a small number of options (max 3) will be developed and reviewed. The outputs from the model will inform the design of the proposed options and any amendments will be reincorporated into the model for hydraulic analysis. This iterative process will be carried out on each option to confirm the optimum design solution.

Risk Analysis (noting key risks that require further consideration) - There are key risks that require further investigation to initially confirm the preferred option and subsequently produce an outline design. At the outset we will undertake a high level review of available data and produce a project risk register. The risks will continually be evaluated from project onset through the gap analysis (to help determine what additional efforts might be required) to completion of the OBC. These include ground conditions and ecology.

Geomorphology - The geomorphological baseline and potential effects of the options will be assessed, and we will build from this baseline with ongoing geomorphological assessments throughout of the preferred option selection, the development of the OBC, and the outline engineering design. We recently visited a similar site at Calstock on the tidal reach of the River Tamar where a failure to fully consider the geomorphological circumstances have led to unanticipated levels of erosion. At Calstock AECOM have been appointed under ECOSF3 to provide advice on mitigating and managing the geomorphological changes and will be able to bring learning from Calstock to inform options at NTNS with the aim of avoiding the occurrence of similar issues.

Stakeholder Engagement - We have worked on similar projects and recognise the importance of community and stakeholder engagement. We identify solutions to ensure expectations and aspirations are managed effectively; helping to enable prompt project delivery. We strongly advocate consultation with key stakeholders and have extensive experience of coordinating and managing the consultation process associated with habitat creation and restoration. A comprehensive approach is adopted to ensure that, where appropriate, the key stakeholders, including the general public, inform the preferred design option. We will provide preliminary design information /

[redacted]

sketches to support stakeholder engagement. We also have the ability to host virtual consultation events should restrictions apply to public consultation. We could provide supplementary fees for setting up a virtual room with the necessary drawings/artwork/boards, etc should this be required.

Ecology Desk Study - Protected/notable species data and protected habitats/sites within a 2 km radius of the site would be obtained from the local biological records centre. This will assist with the ecological appraisal of the site's potential to support protected or notable species and identify relevant statutory and non-statutory designated sites. A fee of £250.00 has been included in the fee for the anticipated costs of this data for the site

Preliminary Ecological Appraisal Report – as part of the Preliminary Environmental Information Report (PEIR), we will assess existing environmental information and mapping, including data from the Environment Agency and National Fish Populations Database, Multi-Agency Geographic Information for the Countryside (MAGIC), Local Environmental Records Centre and the Local Biodiversity Action Plan. We have assumed that the existing information and mapping will be sufficient to complete a PEIR although results from detailed ecological surveys will be included where available. The PEIR will provide an introduction to the ecological baseline and its context, including digitisation of existing ecological mapping and the results of the desk study. The existing environmental information will be used to address the potential effects of the proposed Scheme on terrestrial and aquatic ecology features (protected, notable and designated sites, habitats and species).

The PEIR will provide a summary of the environmental baseline, the potential environmental impacts of the scheme, any embedded or proposed environmental mitigation and any consents likely to be required. It will also provide commentary on whether there are likely to be any significant environmental affects, to inform EIA screening which will also be undertaken, and on any further environmental assessment or survey work required through detailed design. Where existing environmental information is insufficient, recommendations will be made for further work in both the terrestrial and aquatic habitats, such as habitat walkover assessments, fish and/or invasive non-native species (INNS) surveys.

Ecology Surveys and BNG - An intertidal ecological survey is required to identify habitats present within the boundary of the TET land to inform an assessment of the potential impacts to the site from lowering the land to create intertidal habitat. We have enlisted ABPmer to carry out an intertidal survey of the land and to carry out Biodiversity Net Gain condition scores. ABPmer is a leading UK marine environmental consultancy with a wealth of experience in undertaking field surveys and the provision of expert consultancy and advisory services to industry and regulators. ABPmer operates a fully mobile survey team that regularly conducts marine ecological surveys.

ABPmer will undertake an intertidal walkover survey at low tide within the TET site. The landward boundary of this survey will be Mean High-Water Springs (MHWS). The seaward boundary will be the line of Mean Low Water Springs (MLWS) (or as near as possible depending on conditions on the date of the survey and the lowest safely accessible areas). We will plan to mobilise for the survey during good spring tides to maximise the time and accessibility on site and the quality of the data.

The approach will be based on the standardised UK habitat classification (UK Hab) assessment (https://ukhab.org/). Throughout the area each identified habitat parcel will be mapped as polygons with a hand-held GPS and a description of the habitats present recorded in line with the UK Hab classification habitat descriptions and with those defined within Natural England's Biodiversity Metric 3.1. We will also identify and map distinctive areas of habitat types/zonation including the presence of characterising and nationally rare or scarce species within the study area.

Once each habitat has been identified a condition assessment of each habitat will be undertaken using the 'Biodiversity metric 3.1: auditing and accounting for biodiversity condition assessment sheet'. An individual condition assessment will be completed per habitat parcel identified.

During the condition assessment should a single habitat parcel contain areas of different condition, then the original parcel will be split, and new condition assessments completed for each new parcel.

Additional field notes will also be made including details on the sediment type; evidence of bird feeding (e.g. footprints); the general characteristics of the wider habitat; observations on any impacts of anthropogenic activity such as bait digging in the area; and the presence of any non-native species. A photographic record of each habitat parcel and the broader site appearance will also be collected.

Geotechnical - We will prepare a draft Ground Investigation Specification (and associated Schedules and Appendices) in accordance with the UK Specification for Ground Investigation provided by the Institute of Civil Engineers (2nd edition) for issue to the Client. A Bill of Quantities will also be prepared to provide the method of measurement and item coverage to allow the scope within the Specification to be priced at tender stage by ground investigation Contractors and also to define the bill items for subsequent payment following the site works.

Within our role as Designer, in the design of the Ground Investigation we would seek to eliminate, reduce or control foreseeable risks that arise during the site works. The designer will also provide information to other members of

[redacted]

the project team to help them carry out their duties. We will prepare the Pre-Construction Information Pack (PCIP) that will be approved by the Environment Agency as the Client under CDM.

The online Zetica UXO risk map indicates the site is located within an area of moderate bomb risk with numerous Luftwaffe targets also shown. Whilst it is anticipated the ground investigation will largely only be required to prove the base of the existing made ground and shallow (upper) superficial deposits, information has not been provided to indicate when the existing fill material was placed. As such, we have included an allowance for obtaining a detailed UXO assessment to inform the risks and mitigation requirements for the investigation.

An interpretative report will be prepared by AECOM following completion of the ground investigation, based on the requirements set out in Eurocode 7 (BS EN 1997-1:2004+A1:2013), Cl. 3.4 and Land Condition Risk Management (LCRM, 2021). The scope of works for this report will summarise the site, is anticipated to comprise the following:

A summary of the site/site history/walkover survey; An evaluation of the field and laboratory testing results included in the ground investigation Contractor's Factual Report; Development of the ground model for the site, including the groundwater regime. Geological cross sections will be produced, as required; Derivation of geotechnical global parameters for the various geological materials encountered at the site, including summary plots of parameters; Preliminary geotechnical assessment and design recommendations for temporary works; Recommendations for further works (if required).

Interpretation of the geo-environmental aspects of the investigation, including:

- A generic quantitative human health risk assessment defined as a Tier 2 assessment in the Environment Agency's LCRM guidance, based on published Generic Assessment Criteria (GAC) values and, where appropriate, criteria prepared by AECOM;
- A generic quantitative risk assessment to controlled waters in line with the processes outlined in LCRM using published water quality criteria;
- Provision of preliminary advice on the potential for re-use and disposal classification for arisings by conducting a Hazardous Waste Assessment, if required; and
- Assessment of the geotechnical and geo-environmental risks associated with the proposed scheme.

Preliminary consideration on the potential for re-using material will be provided within the interpretative report. However, further works could still be required to confirm the suitability of materials.

Business Case

Outline Design, Costs and Outcome Specification - We will produce an outline design of the preferred option and develop a more detailed economic and financial case preferred option. We are mindful that although the design returns the estuary to a natural form and reduces both ongoing Health and Safety Risks and maintenance commitments, the design needs to be both of a high standard and fully reflective of the sensitivity of the dynamic environment to change. While the project outcome is relatively simple the process of reaching a naturalistic and stable geomorphological state once the bank is removed or reduced is complex. Our engineers are used to working closely with our modellers and environmental experts in order to deliver integrated and sustainable designs.

As a matter of course, we assess the carbon impacts of our designs and our design reviews include a full H&S audit (including construction, operational and public safety) and sustainability. We have experience of EA Public Safety Risk Assessment and all our designs are developed using a Safety in Design framework including frequent safety review and risk assessments. In this location we are particularly aware that the final solution should be a naturalistic and low maintenance as possible. We understand that the deliverables from the Outline Design must allow the EA Cost and Carbon lead and/or an appointed ESE contractor to reliably price the work and to identify and price any major risk items. Our on the EA Client Support Framework (where we provide cost and carbon services to the EA), means we are familiar with this process and with the levels of detail required to price and tender work. We fully recognise the importance that the outline design is sufficiently detailed, and our approach is specifically designed to allow a realistic construction methodology to be developed by the contractor that is sufficiently robust to give confidence in the deliverability of the scheme. It is a false economy to under scope this element of the work.

At OBC stage our designers will undertake a high-level review of the options to allow the preferred option to be confirmed and will then focus on production of the design drawings, design report, buildability statement and Risk Register. Our designs will be reviewed in house by [redacted] (Lead Verifier) and will be shared collaboratively with the EA and TET. Design reviews will include our environmental, geotechnical and geomorphology experts to ensure the complexities of the system are reflected in the design solution and our design report will set out the environmental and ecological benefits of the scheme and in particular the key design elements that support these benefits so opportunities for benefits are not overlooked at the next stage of design

[redacted]

development. Safety will be a key concern, particularly construction safety and we will produce a Health and Safety file for handover to the successful contractor.

Other Engineering and Environmental - Geotechnical engineering assessment, and/or Contaminated Land investigation may be required in order to inform the design. This could potentially also lead to a requirement for intrusive ground investigation. The ground conditions at the site have implications both for the construction methods (suitability for heavy plant for example) but also for the stability of the works themselves both during and after construction. Within our price for the gap analysis, we have allowed for a two day desk based review of the geotechnical information currently available, and subsequent to this, will make recommendations for any further work including producing a scope for intrusive investigations required. We assume ground investigations will be procured and managed by the EA and our fee does not include them.

2. Project Management (inc Project plan). A project plan may be provided as an attachment with your **reply** *(delete if not required)*

At AECOM, we manage projects using our 4 stage Project Delivery System (PDS), certified to ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007. Our PDS aligns with PRINCE2 methodology and enables our project team to focus on critical issues. Our Project Manager (PM) [redacted] and [redacted] will manage the appraisal process and production of the OBC. [redacted] will lead the OBC. [redacted] has proven skills and experience in economic assessment, communication, and stakeholder engagement, including the delivery of OBCs for FRM schemes.

We will commence the project with a focused 'Healthy Start' phase in line with our ISO9001 accredited quality systems, ensuring an early focus on mobilisation, clarity of scope, start-up contractual matters and project risk management. [redacted] will be our primary point of contact for [redacted] The schedule of meetings and communications for the project will be planned during the Healthy Start phase. We will record communications in an Action Log, assigning responsibility and ensuring delivery. Fortnightly telecons with the EA (or as preferred / agreed with the EA PM) will be held throughout the project to review the work undertaken to date / work to be completed, finances, programme, risk register and both AECOM and EA performance.

We will take a positive and proactive approach to contract management from the outset ensuring a transparent and positive project team culture throughout delivery.

Additional project management tasks Indy would undertake include:

- Producing monthly electronic progress reports, including programme updates, to document progress against programme and deliver this electronically to the EA Project Manager
- Production of a BIM Execution Plan to be accepted by the EA and upload files onto the Asite portal in accordance with the accepted BIM Execution Plan.

We are familiar with Asite, the BIM2 workspace and Fastdraft and with the EAs requirements for data protection and encryption and regularly deal with secure transfers of large data sets on our other EA projects. In line with our carbon reduction targets we issue documents only digitally and these will conform with BIM standards.

Under our accredited quality control systems, our Lead Verifiers [redacted] will regularly review and direct the technical delivery approach, ensuring that the entire delivery team set out in the right direction during the Healthy Start Phase and with regular checks at key milestones during delivery.

Programme -AECOM are committed to outline design completion by 15 March 2023. However, some environmental, reporting and project management tasks associated with the business case run beyond that date due to the restrictions on the ecological surveys at the site and the likely requirement for ground investigation. Our proposed initial programme is attached to this proposal.

Health and Safety - The safety of the public, clients, our staff and subcontractors is our number one priority. We are familiar with the EA SHEW CoP and Health, Safety & Wellbeing will form a fundamental focus of our project management, our day-to-day activities and our design approach. Our Safety in Design (SiD) approach includes regular design reviews and independent H&S reviews, buildability reviews and Public Safety Risk Assessments. Risk assessments (SHE Plans) will be undertaken prior to the commencement of any surveys or site visits, including a site-specific Task Hazard Assessment completed on the day. Appropriate training, PPE and biosecurity precautions are always undertaken. Further details on AECOM's policies are available on request.

Risk Register - Risk will be discussed during each progress call, and managed with a Risk Register which will be updated accordingly. The top three risks to the project as currently identified are summarised below:

Risk	Identified Mitigation
Modelling sensitivity and suitability – Model review finds the existing model requires refinement to support OBC and design	Early model review will highlight if further model development is required. This will be subject to additional scope and fee agreement if required.
Design Risk – economic case for change declines due to constraints not identified until design is further progressed.	We will do a high level review of the engineering proposals and repeat this at key stages in the design/OBC development in order to identify risk items or alternative engineering approach. ESE may be used (additional scope) once a final option is identified.
Surveys – Additional surveys required over and above those specified (eg. Specialist species specific surveys). Scope of surveys required is larger than anticipated (eg. GI)	Early gap analysis and analysis of data as it becomes available will ensure early identification of data gaps and these will be rapidly reported to the EA PM.
Weather Risk (Safety) - High flows, snow and ice or heavy rain prevent safe access to the site for surveys.	Monitoring of weather conditions as part of standard site Risk Assessment process. EA to share flood and weather forecast data. Conditions at site to be shared with project team.
Stakeholder Comms & Engagement - Additional Stakeholder Engagement Activities beyond the scope / fees allowed	Early discussions on engagement activities. Regular review and update as well as progress reporting at the monthly progress meetings.
Design Risk - Safety or environmental mitigation identified once design is progressed. Preferred option not feasible due to design issues not identified until design is progressed.	Early high level feasibility to identify major design risks and strategies to control these. Residual risk will remain however and will be informed by regular design reviews by AECOM.
Concept Design - Possible that more detailed assessments and studies may result in a change in preferred option or combination of options at the site.	The team at AECOM are experts in river restoration and have designed and pro-actively delivered a range of environmental improvement schemes in a range of circumstances. They can apply this to develop new solutions as additional work.
Permits for the GI or other intrusive surveys	We have assumed no permitting will be necessary for the survey phase. If permits are required this could add 6 to 8 weeks to the programme.

3. Proposed Staff who will do the work and briefly state previous relevant qualification/experience. Contractors experience of undertaking similar projects and accreditations (if requested)

We have carefully selected a core team on the strength of their similar project experience and proven success in habitat creation and flood risk asset management. Our team brings a wealth of relevant experience and associated knowledge of EA systems and processes. Equally our engineering design team have recent experience in delivering designs to EA standards and have experience of the requirements of the EA SHEW CoP, efficiency reporting and the EA carbon calculation. Having a focussed core team will enable us to build strong relationships with the client team to work effectively and efficiently, but if necessary, we are able to substitute in skilled resources from our wider AECOM teams of more than 60 Water Environment specialists, and 130 water engineers and planning practitioners. AECOM has specialists in every sector that we are able to draw upon to support delivery as necessary. Our team includes specialist marine ecology survey skills from ABPmer who will deliver the required ecological surveys and support the BNG assessment.

Our team has been selected to ensure inclusion of expertise in civil engineering design, ground engineering, geomorphology, ecology, cost analyses with business case development and stakeholder engagement. Our

[redacted]

[redacted]

[redacted]

Marine ecological surveys and BNG appraisal will be provided by ABPmer working as sub-consultants to AECOM. [redacted] will lead the PEIR. Phil has [redacted] experience in environmental impact assessment for water and flood management schemes and has good knowledge of Environment Agency and Natural England requirements.

4. Health & Safety (only complete if requested in defined evaluation criteria)

Not Applicable (not in defined evaluation criteria)

5. Sustainability (only complete if requested in defined evaluation criteria)

Carbon Emissions. AECOM UK&I have calculated and offset our operational emissions for FY21-22 and are certified as a CarbonNeutral® company in line with The CarbonNeutral Protocol – the leading global framework for carbon neutrality. Our Sustainable Legacies Playbook sets out how AECOM aim to achieve our intention to be operationally net zero in 2021 and to reach science based net zero by 2030. Local resources have been allocated, with train travel for longer distance travel as necessary. Meetings will be carried out virtually where that approach works for the project. We estimate that the carbon emissions from our travel to site for our whole field team will be less than 40 kg CO2. We will provide narrative assessments of carbon for this project, and this will be based on experience of delivering Carbon measurement for environmental management schemes, recently delivered as a development of the EA ERIC Tool.

Sustainable Design. Alongside deliverability, constructability, affordability and safety our designers also consider carbon and sustainable materials / material; reuse in developing their designs. Our sustainability team includes experts on low carbon construction and we will access their expertise as and when required.

Biosecurity. Biosecurity risks are assessed as standard practice and mitigation measures are included in risk assessments and method statements. Staff are trained in managing biosecurity risks, including recognising and reporting invasive non-native species (INNS). After all surveys, equipment and protective clothing are thoroughly cleaned by brushing, washing and the use of disinfectant (Virkon S or Virkon Aquatic) and dried in accordance with "Check, Clean, Dry".

6. Quality Assurance (only complete if requested in defined evaluation criteria)

Not Applicable (not in defined evaluation criteria)

7. Cost Proposal

Please use day rates, including any applicable discounts, as agreed under the framework contract. A full cost schedule may be attached to support the costs summarised below.

Task No.	Name	Framework grade	Day rate	No. of Days or part thereof	Cost
	NTNS OBC Fees - staff	See breakdown attached.			[redacted]
				Total staff costs	
Expenses (please detail type ie travel, accommodation etc)		See breakdown attached			
Subcontractors		See breakdown attached			
				Total overall cost [redacted]	£124,852.80

[redacted]

8.-Terms & Conditions	
Note to contractor – All call off contracts under the Ecological Services Framework are subject to the terms and conditions agreed at framework award, including the Prior Rights Schedule and GDPR Schedule completed at award of the call-off contract.	
Notes	You must have a purchase order number from the Contracting Authority before you start any work in connection with this proposal. **If you have carried out a protected species survey, data collected must be uploaded onto the NBN network. Please take account of this in your quote.**
By signing this form AECOM agree to provide the services stated above for the cost set out in your Cost Proposal and in accordance with the Ecological Services Framework 3 Agreement Terms and additional appendices (if used).	
Contractor Operations Director:	
Signature:	[redacted]
Date:	

9. Confirmation of Instructions (Contracting Authority Project Manager to complete)	
Notes	All agreed post submission amendments to scope, proposal, timetable or costs must be updated in the sections above prior to accepting the proposal. **A commission code must be obtained from Stephen Perriss prior to confirming award and must be quoted on your purchase order.** A Bravo ECM reference should be obtained from Commercial if the project has been issued via Bravo and quoted on your purchase order.

Authorisation	Name	Signature	Date
Contracting Authority Project Manager			
Authorised Contracting Authority Signature			
DgC Authorised Signature (if required)			

Commission Code	
Purchase order no.	
Bravo ECM Ref (if applicable)	

The completed Project Form should be returned to the Contractor as authorisation to commence work. A copy

[redacted]

must be provided to the named Commercial Lead if the award has been conducted via Bravo.

22503 ECOLOGICAL SERVICES FRAMEWORK 3 (EcoSF3)
SCHEDULE B PROJECT FORM AND CONFIRMATION OF INSTRUCTIONS

PART 3
CHANGE CONTROL SCHEDULE

Notes	**To be completed by Contracting Authority Project Manager** **Any extensions, price changes or amendments to existing orders need to be discussed with Stephen Perriss before being agreed with the Contractor**. Please remember to amend your Purchase Order in SOP if necessary. The table below should be used to record and authorise the agreed changes throughout the project. A Change Control Notice (CCN) should be completed for substantial changes to the project and a summary provided in the table below. Send a copy of the revised Project Form and CCN (if used) to the Contractor once the change has been agreed and approved. A copy should also be sent to your Commercial Lead if a Bravo ecm reference has been provided.

10. Change Control
All amendments to project scope, timetable or costs must be submitted to and approved by the Contracting Authority PM prior to implementing the change.

Change Details	CCN Ref. (if applicable)	Revised completion date (if applicable)	Revised Project Cost (if applicable	Approved by (Contracting Authority's PM) / Date

[redacted]

8.-Terms & Conditions	
Note to contractor – All call off contracts under the Ecological Services Framework are subject to the terms and conditions agreed at framework award, including the Prior Rights Schedule and GDPR Schedule completed at award of the call-off contract.	
Notes	You must have a purchase order number from the Contracting Authority before you start any work in connection with this proposal. **If you have carried out a protected species survey, data collected must be uploaded onto the NBN network. Please take account of this in your quote.**
By signing this form AECOM agree to provide the services stated above for the cost set out in your Cost Proposal and in accordance with the Ecological Services Framework 3 Agreement Terms and additional appendices (if used).	
Contractor Operations Director:	
Signature:	[redacted]
Date:	

9. Confirmation of Instructions (Contracting Authority Project Manager to complete)			
Notes	All agreed post submission amendments to scope, proposal, timetable or costs must be updated in the sections above prior to accepting the proposal. **A commission code must be obtained from Stephen Perriss prior to confirming award and must be quoted on your purchase order.** A Bravo ECM reference should be obtained from Commercial if the project has been issued via Bravo and quoted on your purchase order.		
Authorisation	**Name**	**Signature**	**Date**
Contracting Authority Project Manager	[redacted]		
Authorised Contracting Authority Signature			
DgC Authorised Signature (if required)			
Commission Code			
Purchase order no.			
Bravo ECM Ref (if applicable)			

The completed Project Form should be returned to the Contractor as authorisation to commence work. A copy

[redacted]