22503 ECOLOGICAL SERVICES FRAMEWORK 3 (EcoSF3)

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

Project title: Holme Fleet Culvert (OBC)

Bravo project ref (if applicable): [redacted]

Date: 11/04/2022

Contracting Authority (Environment Agency; Natural England; Defra etc)	Environment Agency		
Project Manager:	[redacted]	**Phone number:**	[redacted]
Budget holder:	[redacted]	**Cost code:**	[redacted]
Commercial Contact (if applicable):	[redacted]	**Email:**	[redacted]
Project Start Date	13th June 2022		
Project Completion Date	24th January 2023		
For any projects over £10k, full competition is required (i.e. all suppliers on the Lot invited to quote).	**Direct Award**	X	**Mini-comp**
Call off from Lot number (please tick)	1	2	3	4 X
Proposal return date: ***(no less than 10 working days from current date)***	26th April 2022		

Evaluation criteria:		
Price	**Weighting**	**50%**
Quality	**Weighting**	**50%**
Quality Sub-Criteria Weightings:		
Approach & Methodology		**50**
Proposed Staff (inc Pen Portraits) and Contractor's experience/accreditations.		**30**
Project Management (including project plan)		**20**

Specification *Note* – *the contractor's proposal will be limited to a maximum of* ***6 pages* (including pen portraits for key staff)*** *unless otherwise indicated in your specification.*

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.

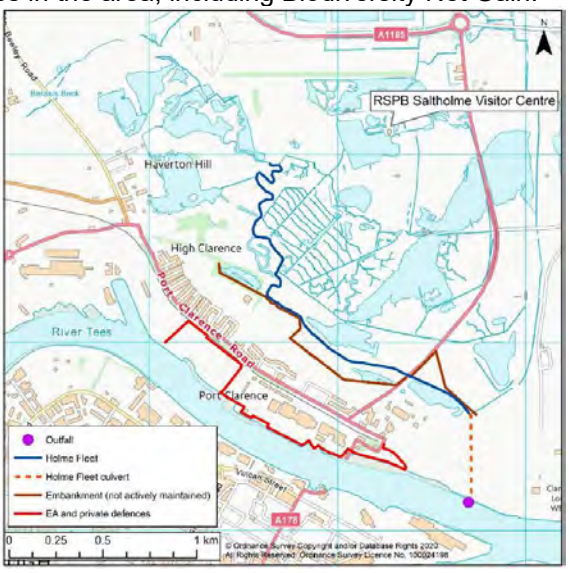
The Holme Fleet project sits within an estuary wide Tees Tidelands Programme that aims to restore intertidal habitat – also permitting inland migration where possible; and ecologically reconnect tributaries with the tidal estuary - so restoring tidal creeks and enhancing fish passage. The programme is aligned with the Environment Act 2021, which sets targets for improving the natural environment and includes biodiversity net gain.

Holme Fleet is a tributary of the tidal River Tees and designated as Main River. Tributaries include Belasis Beck that flows through Belasis Business Park, and minor tributaries from Cowpen Bewley. Holme Fleet passes through Saltholme Nature Reserve. Residential and industrial properties at Port Clarence bound the southern edge of the reserve, as well as community allotments. A historic embankment flanks the right-hand (south) bank of Holme Fleet near Port Clarence. The area is very flat and low-lying.

The tributary enters a privately owned culvert under an expanse of post-industrial land on the fringe of the Tees estuary. The first 50m section of culvert is beneath a railway line, presumed to be owned by Network Rail. The second 400m section of culvert is currently owned by Scott Bros. Finally, a third 30m section of culvert downstream is owned by another third party. Holme Fleet then outfalls from this culvert into the Tees estuary. The tidal risk along Holme Fleet is controlled by an EA maintained flap at the outlet of the culvert. However, due to poor access, this flap has been 'Red Carded' by the [redacted]. The culvert itself varies in size along its length, reducing from an initial 1100mm circular culvert at the inlet, to a 525mm circular culvert at the downstream end.

In February 2021, a multi-agency response was required when a section of the privately owned culvert became blocked, resulting in the throttling of water in the Holme Fleet and extensive flooding to the nature reserve and properties gardens. The blockage occurred in the 525mm cast iron circular culvert, which is downstream of the 825mm circular culvert. Fortunately, due to the Agency's response of over pumping from a manhole upstream of the blockage, flooding to properties did not occur in this instance. However, the risk of blockage remains.

The Holme Fleet Culvert project seeks to reduce the risk of the culvert becoming blocked in the future, whether this be through removing or upgrading the existing culvert in part or in whole, whilst assessing the potential for further environmental opportunities in the area, including Biodiversity Net Gain.



The Contractor will:

1. Familiarise themselves with the existing hydraulic model and previous studies produced relating to the Holme Fleet Culvert, to be provided by the Client.

2. Use the model to run scenarios based on, but not limited to, the short list of options defined in the Strategic Outline Case (SOC) and listed below. The Contractor 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.

- Do Nothing
- Do Minimum
- Do Something – construction of attenuation features upstream of the culvert to slow the flow and reduce blockage risk
- Do Something – replace constrained downstream section of culvert with larger cross section culvert
- Do Something – abandon constrained downstream section of culvert and replace with open channel
- Do Something – abandon full length of culvert and excavate new open channel

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, including differing tidal and fluvial limits, as well as blockage rates in the Holme Fleet Culvert.

5. Use the model to determine the current and impact on local flood risk, including potential risks to receptors such as homes and infrastructure.

6. Produce a Preliminary Environmental Information Report (PEIR) using existing environmental information available and identifying the need for further surveys/assessments.

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

8. 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

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

10. All surveys must follow UK Hab assessment guidelines [redacted] and latest BNG technical guidance [redacted]

11. The condition of the habitat surveyed must be noted in the UK Hab assessment

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

13. 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

14. 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)

[redacted]

15. The Contractor will provide recommendations on how each unit should be managed or uplifted in their reporting.

16. Further BNG assessments will be required if offsite enhancement, creation, or offset is likely. This will be deemed as a variation to the Project Form and assessed in Part 3 Change Control.

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

18. Complete options appraisal in line with the FCRM Appraisal Guidance to include monetisation of FCRM and Ecological services benefits, including BNG. 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.

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

20. 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. Provide outline costs for all short-listed options.

21. Calculate the volume and tonnage of material to be disposed of associated with the preferred option, and assess the potential for this to be reused elsewhere on site.

22. Consider the management of the existing outfall and access arrangements to it. The Contractor should also consider the outfall in relation to the projects ambitions of creating a tidally influenced open channel. This will be incorporated into the Contractors designs.

23. Consider the current arrangement at the culverts inlet, and the potential for a tidal exchange control structure at the inlet to allow intertidal flows upstream. This will be incorporated into the Contractors designs.

24. Consider the management and design of the existing culvert inlet to allow for the culvert/channel to be tidally influenced This will be incorporated into the Contractors designs.

25. Consider impact on existing utility apparatus/assets and railway embankment and potential mitigation work. This will be incorporated into the Contractors designs.

26. Consider impact on existing access road to the south of the site, and the impact of culvert daylighting at this section. Including the need for a potential bridge. This will be incorporated into the Contractors designs.

27. Consider innovative approaches to reducing waste and maximise the reuse of site won materials. This includes the review of existing site investigation, to be provided by the Employer. This will be incorporated into the Contractors designs.

28. Consider the opportunities to maintain and enhance public right of way connectivity of the site. This will be incorporated into the Contractors designs.

29. Prepare the Outline Business Case for the Holme Fleet culvert project. The OBC shall include the BNG, economic and carbon estimates for each option assessed to identify a preferred option.

30. Surveys required to develop the preferred option and outline design (e.g. topographical) will be undertaken by the Contractor as an additional item/variation.

31. The Contractor will review available Ground Investigation made available to them by the Client and provide the findings in a short technical note. The Contractor 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 Contractor 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 Contractor is expected to interpret the factual outputs of the intrusive investigation and incorporate it into the optioneering and outline design process.

Other services required

32. The Contractor shall attend contract start-up meeting (via Microsoft Teams) with the Environment Agency PM to finalise project scope and deliverables for the project.

33. The Contractor will attend monthly progress meetings and produce minutes of the meetings. They will also produce a monthly progress report including details of work completed, risks to delivery and a forecast of likely contract payments until completion.

34. The Contractor will provide a monthly updated Programme (in Microsoft Project and pdf format) in advance of the Environment Agency's PM monthly reporting deadlines.

35. The Contractor will support the Environment Agency in engagement with stakeholders by preparing sketches for the option appraisal.

36. The Contractor will actively seek efficient solutions and communicate any efficiencies that could be claimed through the Agency's efficiencies reporting process.

37. The Contractor will also actively seek low carbon solutions and will complete the Agency's Carbon Calculator for any preferred options identified.

38. The Contractor will undertake the role of Designer and Principal Designer under the Construction Design and Management Regulations (2015)

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

40. The Contractor will be responsible for arranging any access required to undertake site visits in the study areas.

41. All meetings will be conducted in accordance with any Covid restrictions on working practices

42. The Contractor 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.

43. The Contractor will work in accordance with the EAs Minimum Technical Requirements (latest version)

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):

[redacted]

- Identify proposed methodology to achieve the above outputs and confirm deliverables. This should include survey work (if applicable), assumptions and exclusions.
- Details of how options will be appraised using the analysis tools set out in the Specification above and communications with the Environment Agency.
- Details relating to the updating of the existing model with proposed scenarios and the production of key documents, including the OBC and PEIR.
- Details of how costs will be developed for the various options proposed.
- Identification of key project risks and how they will be mitigated. A summary risk table (including residual risk ownership) should be included in the proposal.
- Include details of how risks relating to the ongoing Covid19 pandemic will be managed, from a business continuity perspective and operationally.
- Include details of how the quality assurance that will be applied to the project and the final outputs.

Project Management (weighted 30%)

- Programme shall include key milestones. Sufficient detail should be provided to evidence a planned approach to delivering the various elements of the project within the required timeframes.
- Project Management should include and overview of the proposed project management and reporting structure.
- Include details on regular reporting and meetings.

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

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.

- Experience of scheme appraisal in line with FCRM and treasury guidance
- Experience of feasibility and design of solutions to restore habitat including intertidal habitat.
- Experience appraising and delivering catchment scale/natural flood management solutions to FCRM and Environmental issues
- Stakeholder Engagement
- Report and Business Case development including developing PFC
- Project Management
- CDM competency

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		10%
2	Model short listed options Determine existing and change in flood risk associated with options Prepare option sketches for engagement with stakeholders Appraise options using DEFRA GiA Partnership Funding		20%
3	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.		20%
4	Facilitate a preferred option workshop Produce Ground Investigation Specification Produce Outline Design drawings for the preferred option		10%
5	Prepare and submit Outline Business Case		10%
6	Project Completion		30%

[redacted]

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	**JBA Consulting**		
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.

[redacted]

1. Approach & Methodology

Familiarisation and Option Development. JBA is already familiar with the Holme Fleet catchment and is currently working on the Tees Tidelands: Environmental Improvements project with Stockton Borough Council. Our Newcastle modelling team has produced the hydraulic model for the catchment which has contributed to a knowledge of the flood risk and the potential for habitat creation. We will work collaboratively with you through regular progress meetings and discussions with technical specialists to develop relevant and viable options for assessment in the hydraulic model. JBA will facilitate an Option Workshop with Partners and Stakeholder to undertake the Option review and confirm the short list. Do Nothing and Do Minimum will be considered to provide an economic and environmental baseline for the OBC. The long-list will be filtered through application of the following techniques:

- Comparison to Objectives and Critical Success Factors (CSF) developed through consultation with the project partners;
- Identification of benefits (e.g. flood risk, maintenance, material management) associated with each option;
- Development of the Biodiversity Net Gain (BNG) benefits derived from the options and WFD objectives;
- Carbon sequestration and nutrient neutrality benefits.

Details of the short-listed options and appraisal process will be summarised in a Technical Note to support the OBC. JBA has developed a bespoke tool for low carbon optioneering. The tool is aimed at workshop settings and encourages project teams and stakeholders to carefully consider available methods and approaches to delivering a reduced carbon impact. We will endeavour to use this together with the tools developed within the NE Hub throughout any optioneering and design workshops and capture the outcomes in a carbon register.

Economic Assessment - The economic appraisal will consider the flood risk management benefits on receptors at risk and the wider environmental benefits using the updated FCRM Appraisal Guidance to include monetisation of FCRM and **Ecological Services** benefit. Environmental benefit will be considered using a simplified approach that uses the OM4A benefit values for habitat creation and change in condition, and the OM4B values associated with improved channel restoration (plus the additional information from the current version of BNG 3.1 and Carbon Sequestration). We will consider the change in habitats along with the anticipated timing of that change to take into account when the benefits will occur within the present value calculations. We believe this to be a suitable and proportional approach that will allow you to demonstrate the wider benefits of the scheme without a costly full natural capital assessment (which can be completed at FBC stage). However, if this is required, we have the necessary experience and methodologies to undertake more detailed quantification of specific ecosystem services, should this be required. We shall consider wider environmental benefits associated with the options (recreation, quality of life, landscape) and look for ways to monetarise these in accordance with Appraisal Guidance. Costs to deliver each option will be informed by the engineering teams and will include the whole life costs associated with the works, any additional design and appraisal costs. Allowances for future maintenance costs, risk and optimism bias will also be considered. If requested by the EA, a Partnership Funding Calculator will be derived for each option that collates the whole life costs, the present value benefits and the OM4 benefits generated by the options. This will be supplemented by an economic appraisal report that described the approaches taken, the assumptions and the choice of preferred option and any other factors that would change the decision-making process.

JBA has been working with [redacted] with the engineering constraints for the Tees Tidal Project. The project is challenging given the high level of uncertainty regarding the works to the downstream section of the Holme Fleet culvert (this project). Improving the upstream tidal conveyance of the fleet is an important element in maximising the opportunity for habitat creation within the Demonstrator Site of Tees Tidal project. Options 4 and 5 (see below) stated in the Project Form rely on the upgrade or removal of the culverted section of the fleet. The culvert could also be abandoned and a new channel excavated (Option 6). Excavation is challenging given the uncertainty of the presence and nature of made-ground in this area. In addition, the alignment of any new channel would need to consider fully the topography of the area and (as stated) the impact on modelling and tidal flows upstream. Our submission includes the preparation of baseline design drawings for the short-listed options and outline drawings for the preferred option. We will engage with our contractor partners to prepare costings for the short-listed options and preferred option.

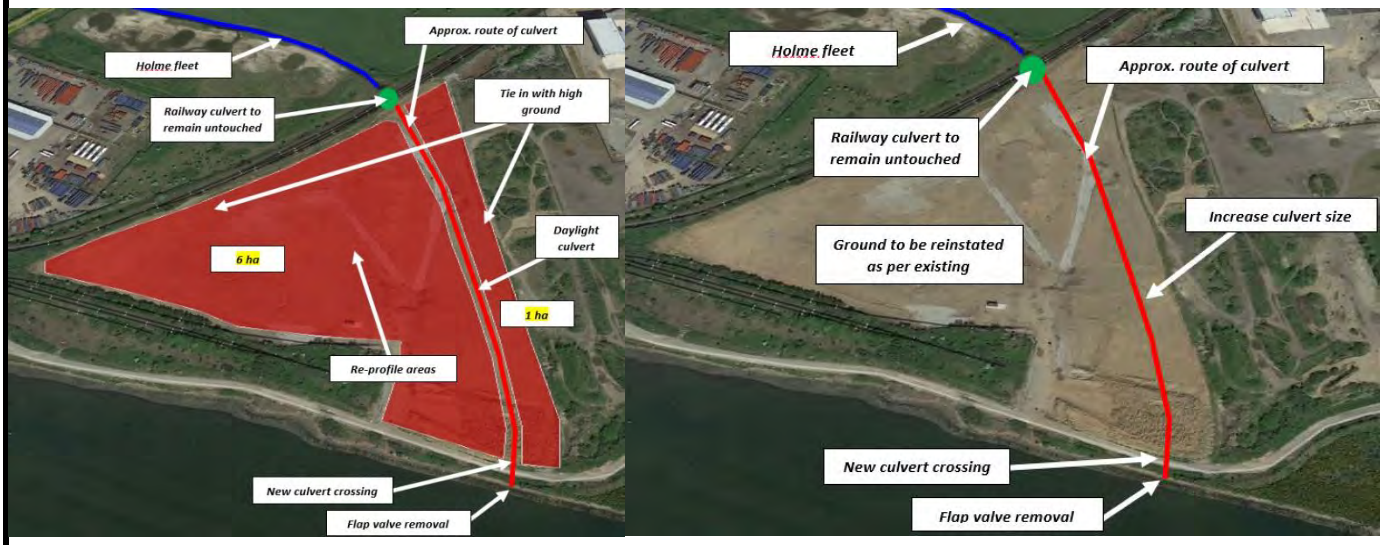
Modelling - Our Modelling team developed the existing 2021 Holme Fleet model. We estimate their experience will save at least 5 days familiarisation time. Through discussion with the wider project team, the Modelling team will drive development of Do Nothing, Do Minimum and Do Something scenarios for testing in the hydraulic model. We will agree scenarios with you before commencing modelling work. By communicating progress with you regularly, we will ensure the options are appropriate and their findings are meaningful. Our Modelling team are familiar with the Environment Agency's MTR for Hydraulic Modelling and consistently deliver projects to these standards. We have developed a bespoke mapping toolbox for efficiently generating modelled depths and extents from 1D hydraulic models such as the Holme Fleet model. These will be shared with others in the wider options development team to understand opportunities and risks associated with various scenarios. Familiarity with the study area and model means we are well-placed to simulate, and interpret the findings of, numerous scenarios within the project timescale.

The key outputs from the hydraulic model, such as flood extents and depths, will be used to assess the impact of the modelled options on local tidal flood risk and potential habitat development. This will help to inform a preferred option.

[redacted]

Events for the which the model should be run are not specifically scoped. To efficiently understand the impact of options on flood risk and potential habitat development, we propose modelling a selection of design tide events and key tides within the daily range (e.g. 50%, 5%, 0.5%, 0.1% and 0.5% plus largest climate change allowance, HAT, MHWS, MLWS, MHWN). To support development of the OBC, the full range of design tide events will be modelled for the preferred option.

We have developed emerging skills in CFD modelling which may be used for scour assessment, specially assets and outfalls. A modelling report will be drafted to document works undertaken. Our modelling team are experienced in delivering modelling in line with the requirements of the Environment Agency's NEC4 Minimum Technical Requirements for Modelling.

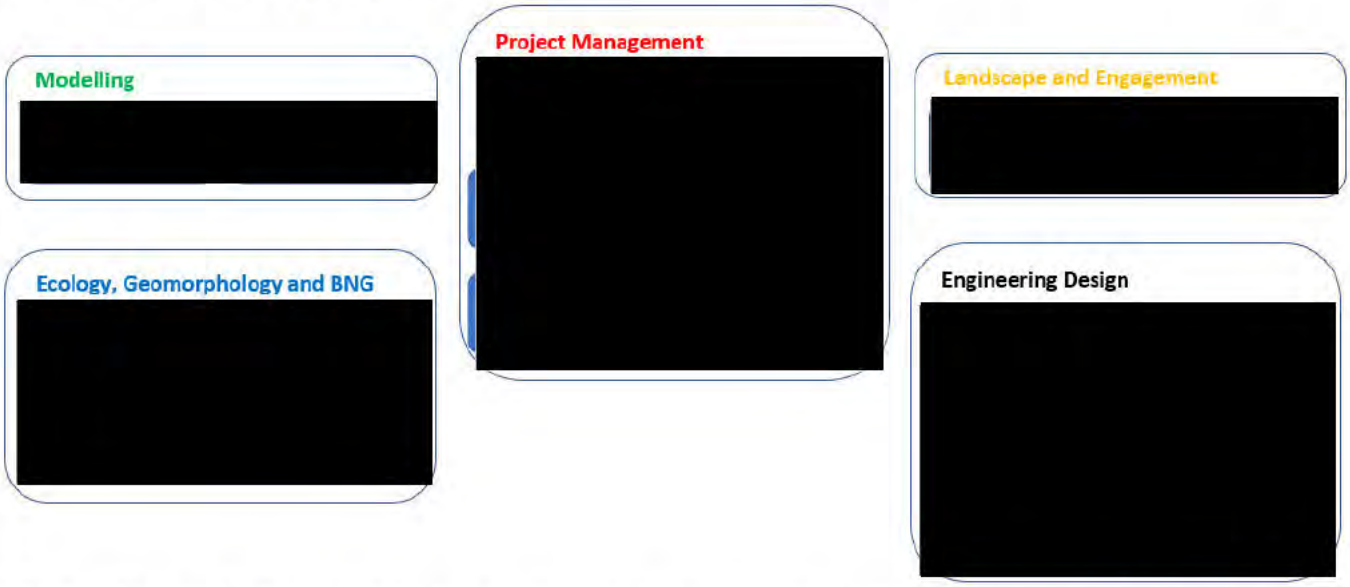


SI and Hydrogeology – JBA will review the GI provided by the client and provide a technical review. This review will include internal discussions with the [redacted]. JBA will prepare a GI specification for the ground works contractor, which would include a Specification, Bill of Quantities (BoQ) and Design Risk Assessment (DRA) and supporting information. **Ecology and Geomorphology** - [redacted] will lead the Ecology and BNG Team. The ecology surveys will be carried out in tandem with the fluvial audit. Ecology surveys will follow UK Hab assessment guidelines (https://ukhab.org/) and [redacted] (subject to release). The latest Biodiversity Net Gain assessment technical guidance (currently version 3.1). We shall ensure that the **condition of the habitat surveyed** will be recorded (this has an important influence on the BNG Score). Other features will be mapped including rare and notable species, otter holts, birds' nests. All occurrences of invasive species (W&CA Schedule 9) will be mapped. The data collected from the geomorphological assessments and the ecological assessment will feed into the BNG assessment. We will produce a PEIR that will recommend the next stage of any ecological assessment. [redacted]. **Landscape and Engagement.** [redacted] will lead the Landscape Design Team, which is integrated into the Option Development and Project Management Team. [redacted] will work with [redacted] to produce the suggested options for Public Right of Way (PROW) improvements and will aim to meet with the [redacted] on site to discuss the enhancement of existing, and potential opportunities for new routes. The landscape team also will provide sketches for the option appraisal for use at Stakeholder consultation workshops and to support option development. The figures will aim to **engage, enthuse and excite** stakeholders. The Landscape team will communicate closely with the wider options development team to ensure that circulation issues and wider landscape design consideration is part of the discussion to reaching a preferred option. [redacted] **Full Business Case (FBC):** Based on the range of options considered, a Short Form FBC will be prepared. We acknowledge that the Agency has requested that the project moves from SOC to FBC. JBA has applied this approached for other schemes and is confident that this approach is appropriate (risks have been identified in the Risk Management section of the submission). JBA will produce the strategic, economic and financial cases with the **Environment Agency providing the text for the commercial and management cases** (given these relate, in part, to procurement strategies). **Constraints and Assumptions.** Engineering assessment for the removal and reuse of the material cannot be confirmed at tender stage, until the Site Investigation information is available and we have knowledge of the nature of the material. We have assumed that the modelling and analysis will consider 6 options (as detailed in the Project Form). As alternative options develop, we will inform the EA Project Manager as to any implications for cost and programme impacts. We acknowledge that Point 43 of the Project Form states that the contractor will work in accordance with the EA Minimum Technical Requirements (MTR). We would request that the application of the opportunity to discuss the exact requirements for this clause, especially for MTRs covering Environment and Visual and Landscape assessment, as these may not wholly suitable for OBC and the principals of EcoSF3. We assume that all PCI will be provided by the EA after appointment, however an allowance has been

made for the purchase of CAD based utilities information for preparation of the outline design drawings. This will be confirmed on receipt of the quotation from the supplier. Additional items have been identified (e.g. Topographic Surveys) with an estimated cost. This will be confirmed once the scope of these surveys has been confirmed. The project will include initial discussions with the MMO, but has not costed for preparation of the MMO Licence or actual licence fees. It is assumed these costs will form part of any detailed design / FBC stage and no estimate has been provided.

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

Project Management: The project will be managed from [redacted] Staff proposed are from the EcoSF3 submission. Pen Portraits are submitted when new staff are appointed in accordance with the framework agreements. An organogram is provided to describe the team make up. Over the past 24 months our project Teams have developed effective ways of using Microsoft Teams to run our meetings and workshops. This is used in conjunction with Teams SharePoint Sites to allow joint working and secure safe transfer of data. Project Communication will be managed through the **Project Communication Plan**, established at the start of the project. On a day-to-day function the project manager will lead the communication. An organogram is provided.



A **Project Manager's Report** will be produced monthly, with a weekly summary of progress to date provided for the client manager. This will follow the project programme. The inter-action of individual tasks will be highlighted to establish any **critical paths**. Regular **Progress Meetings** will be held (frequency of 4 - 6 week dependent upon the nature of the project). We would aim to manage these meetings for efficiency utilising teleconferences / video conferences or Teams as appropriate. **Risk Management:** We would undertake a Risk Meeting to establish the risks associated with the delivery of the project, identify the ownership of each risk and the mitigation required to control or eliminate each. This would populate the Risk Register. Action on the top risks would form an agenda item on each Progress Meeting. **Efficiency and Innovation:** JBA is currently working with the EA and Stockton Borough Council within the Tees Tidal catchment helping to deliver several of the current restoration projects. We are therefore in a unique position to provide an informed and efficient support to the EA. [redacted] has led the modelling support for schemes across the [redacted]. JBA has developed a virtual conference room that can be used where face to face engagement may not be possible, this can be used for stakeholder engagement. **Additional scope and delivery phases:** JBA possesses a depth of experienced in steering projects through SOC, OBC, FBC and construction. We have worked with the Environment Agency for many years and currently sit on all its frameworks. We are the CDF Supplier for the South East Hub. We have design teams in Edinburgh, Leeds, Saltaire, Peterborough, Newport, Coleshill and Haywards Heath to support the Newcastle Team, although that we would ensure that that key Project Management services were provided by the local delivery office. Our Design Teams have delivered habitat creation schemes for the EA, NRW, SEPA, local authorities and Rivers Trusts. JBA Consulting is a Registered company with CIEEM. We are incredibly proud to state that we were named Consultancy of the Year (Medium) 2021 at the Chartered Institute of Ecology and Environmental Management Awards: https://www.jbaconsulting.com/knowledge-hub/jba-consulting-named-medium-consultancy-of-the-year-2021-at-chartered-institute-of-ecology-and-environmental-management-awards/ **Copyright and Licensing**: JBA will be responsible for complying with copyright restrictions and will procure any third party use licences required for the Environment Agency to use any such data. JBA is certified to ISO 27001:2013. All model and survey information will be returned to the client in an encrypted

[redacted]

format using WinZip 128 bit encryption. We confirm that all project deliverables such as model files, survey data or anything of a personal nature such as questionnaires or address data will be returned in an encrypted format using appropriate encryption. **Ouline Design and Construction, Design and Management (CDM) Regulations.** Following the identification of a short-list for each location, we will develop preferred options and provide an outline design. JBA has extensive experience in management of design and construction works under the Construction (Design and Management) Regulations 2015. We will work with the EA as the Client under these regulations. We will provide a Principal Designer as requested by the client [redacted]. JBA has close relations with experienced contractors in the [redacted] and can provide ECI support to develop the costs for the various options proposed these can be compared to costs derived from the Framework contractors. In addition, JBA has worked with the River Restoration Centre to catalogue a range of NFM measures and identify costs for guidance. **Project Programme:** A preliminary programme is provided and will be confirmed within 2 weeks of the commission in agreement with the EA Project Manager. In order to manage project spend and allow appropriate forecasting across the project programme we will provide an updated payment table within 2 weeks of the start of the project for approval by the EA Project Manager. This payment table will respect the principals in Section 3 of this Project Form. The programme is provided as an Appendix.

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)

[redacted]

[redacted]

[redacted]

JBA has extensive experience on the natural regeneration of the River Tees, North East England with the Environment Agency, Stockton Borough Council and the Tees Rivers Trust.

Tees Estuary Enhancement Project (Tees Rivers Trust and Environment Agency). JBA was appointed by Tees Rivers Trust (TeRT) to support the detailed design of a series of enhancement features to encourage an increase in inter-tidal habitat on a 500m section of estuary on the River Tees, Middlesbrough. The aim was to increase inter-tidal habitat through widening the river edge using NFM features to provide additional habitat through low, middle and high tidal range over a section c. 500m. Our designs used a combination of naturally sourced materials, including brash from clearance at a local FRM construction site and coir rolls, avoiding as far as possible the use of micro-plastics found in many geotextiles and aimed to encourage natural accumulation of sediments along the section of the watercourse. JBA helped develop a set of options, co-ordinated the option workshop with key stakeholders (INCA, PD Ports, Natural England, Environment Agency) provided the detailed

[redacted]

design of the preferred option and supported TeRT with the submission and planning and the Marine Management Organisation (MMO) Licence. JBA was Principal Designer.

Greatham Asset Removal Modelling (Environment Agency): We have completed the Outline Business Case for the Greatham Marsh Project (LPA - Hartlepool Borough Council). This project aims to remove a redundant structure on Greatham Beck, which has prevented the natural tidal influence upstream of the structure. A former meander of the beck will be restored together with breaches from the main channel will be created to make sure that the inundation and drainage of the area provides appropriate conditions for the habitat development. The removal of the structure provides significant long-term maintenance benefits to the Agency and substantial gain for biodiversity with the re-establishment of the tidal influence and the restoration of the intertidal habitat (mudflat and saltmarsh).

Case Study: Option Selection & BNG-At Greatham Marsh we have considered the opportunity for BNG several options based on different interventions. The Do Minimum option simply reflects the removal of a tidal structure. This leads to a very high % uplift, but only a small number of additional units. Options 1, 2 and 5 show increases in units following creation of new channels, breaches in additional to the removal of the tidal structure. The % uplift is also shown. Review of the % uplift and the actual unit change helps to identify the preferred option.

	Do Minimum	Option 1	Option 2	Option 5
On-site Baseline	6.71 units	88.12 units	115.46 units	88.08 units
On-site Intervention	20.38 Units	252.44 units	284 .83 units	275.76 units
Total Net Unit Change	13.67 units	164.32 units	169.37 units	187.68 units
Total Net % - uplift	203.73 %	186.48 %	146.69%	213.07 %

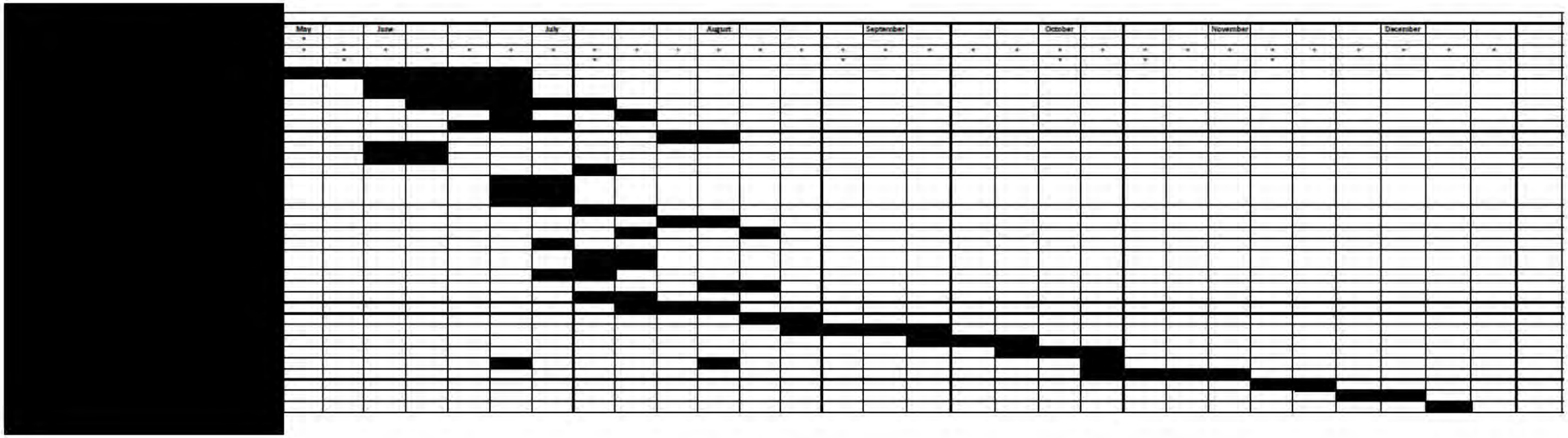
Tees Tidal Environmental Improvements Project (Stockton Borough Council) – We are currently working with Stockton Borough Council and Environment Agency on the Tees Tidal Environmental Improvements project. The project is funded through Defra's resilience / innovation fund. Tees Tidelands is focussed on the residential community of Port Clarence, the community has and continues to face the risk of tidal and fluvial flooding. Protecting the community is a high priority for Stockton Borough Council and the Environment Agency. The work packages described in the OBC are:

- Engagement with the community at Port Clarence including a resilience baseline assessment and early engagement to involve the community from the outset of the project.
- Development of the Demonstrator Project at Port Clarence to illustrate the opportunities for Biodiversity Net Gain uplift.
- Understanding the delivery mechanism for the proposed habitat banking system.

The current take-up of Flooding Warning is only 42% the regional average is 79%. The project aims to increase the take-up through building confidence with the local community. In addition, the promotion of the habitat creation works aim to promote the value of the proposed wetlands in terms of balancing excess fluvial water. Core to the project is the Demonstrator Site and the creation of over 50ha of new intertidal habitat / coastal floodplain grassland. This is a high priority habitat for the Tees Estuary. The Demonstrator Site would provide at least 30% uplift in Biodiversity Net Gain and could generate in excess of 350 units. We compartmentalised the study site to identify opportunities and make sure that the benefits of habitat creation or enhancement could be appropriately mapped. Based on current estimates this could have a trading value of 8 million pounds. Much of the innovative nature of this project centres on the proposed funding mechanism that will provide future funding from the sale of biodiversity units, to fund future resilience and habitat improvements in the Tees Estuary.

We are working on FBC on Phase 1 of Ormesby Beck, which includes the removal of two redundant structures on Ormesby Beck, Middlesbrough. This will help re-establish the tidal regime and make way for later stages that include day-lighting Middle Beck and creation of new intertidal habitat.

Appendix: Draft Programme



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
1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]
				[redacted]	[redacted]
				[redacted] **Figure**	**£89,087.37**

Expenses (please detail type i.e. travel, accommodation etc) – data expenses would be charged at cost with receipt.		
	Ecological Data	[redacted]
	Accommodation and travel	
	Services data	
	EnviroCheck Report	
	Total overall cost	**£92,337.37**
Additional Services (estimate)		
	Topographic Surveys	[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 *JBA Consulting* agrees 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 Project Manager:	[redacted]
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 must be provided to the named Commercial Lead if the award has been conducted via Bravo.

[redacted]

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]