

species22503 ECOLOGICAL SERVICES FRAMEWORK 3 (EcoSF3)

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

To be completed by Contracting Authority Project Manager

Project title: Eel Regulation Compliance – feasibility study

Bravo project ref (if applicable): [REDACTED]

Date: 11 October 2021

Contracting Authority (Environment Agency; Natural England; Defra etc)	Environment Agency		
Project Manager:	[REDACTED]	Phone number:	All queries to be raised via Bravo.
Budget holder:	[REDACTED]	Cost code:	[REDACTED]
Commercial Contact (if applicable):	[REDACTED]	Email:	All queries to be raised via Bravo.
Project Start Date	29 November 2021		
Project Completion Date	31 March 2022		
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)	29 October 2021		

Evaluation criteria: [REDACTED]		
[REDACTED]		
[REDACTED]		
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 (minimum score threshold 4 will apply)		40%
Proposed Staff (inc Pen Portraits) and Contractor's experience/accreditations. (minimum score threshold 4 will apply)		30%
Project Management (including project plan) (minimum score threshold 4 will apply)		30%

Specification

The Contractor's required Limitation of Liability is five million pounds.

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

The Environment Agency (EA) are undertaking a programme of eel passage improvement projects within northeast England. The improvement of eel passage over an obstruction, such as a gauging weir, will improve the eel population in the northeast area and achieve Eel Regulations compliance.

Nine gauging weirs have been identified for possible eel passage improvement (Figures 1 to 2).

The Contractor will assess the feasibility of improving eel passage at the nine gauging weirs (Figure 3 to 11). Where eel passage improvement is considered viable, the Contractor will identify and appraise the possible options for eel passage improvement and recommend the preferred option to be taken forward.

Detailed design and construction of the preferred options will be subject to separate contract.

Site Name	NGR	River Name	Site structure type	WFD Catchment
Featherstone	NY6721661064	River South Tyne	Compound Crump weir	Tyne
Haydon Bridge	NY8562864666	River South Tyne	Flat V triangular profile weir	Tyne
Low Moor	NZ3644210549	River Tees	Flat V triangular profile weir	Tees
Morwick	NU2344304453	River Coquet	Flat V triangular profile weir	Northumberland Rivers
Preston le Skerne	NZ2921023780	River Skerne	V shaped broad crested weir	Tees
Rowlands Gill	NZ1681558094	River Derwent	Flat V triangular profile weir	Tyne
Stanhope	NY9836639040	River Wear	Compound Crump weir	Wear
Sunderland Bridge	NZ2653637721	River Wear	Compound broad crested weir	Wear
Witton Park	NZ1728030900	River Wear	Flat V triangular profile weir	Wear

Figure 1 – Table summarising nine gauging weirs identified for possible eel passage improvement

Weir locations



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Figure 2 – Map illustrating the location of the nine gauging weirs identified for possible eel passage improvement

The existing gauging function of the weirs shall be maintained at all time. Any proposed improvement for eel passage shall not impede the exiting gauging function of the weir.

It is assumed that all nine gauging weirs are in good structural condition and do not require remedial works.

It is assumed all nine gauging weirs are easily accessible. Details of access routes, parking locations etc to be provided to the appointed Contractor at start-up meeting.

The feasibility study is for eel passage improvement only.

It is assumed that all deliverables will be issued to the EA project manager in *Draft* and then *Final* format, following the EA review. (For the programme, the EA review period is 10 working days).

Featherstone - NY6721661064



Legend



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Figure 3 – Aerial image of Featherstone gauging weir (blue mark denotes NGR)

Haydon Bridge - NY8562864666



Legend



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Figure 4 – Aerial image of Haydon Bridge gauging weir (blue mark denotes NGR)

Low Moor - NZ3644210549



Legend



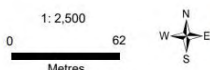
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Figure 5 – Aerial image of Low Moor gauging weir (blue mark denotes NGR)

Morwick- NU2344304453



Legend



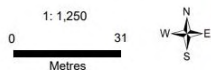
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Figure 6 – Aerial image of Morwick gauging weir (blue mark denotes NGR)

Preston le Skerne - NZ2921023780



Legend



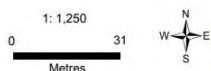
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Figure 7 – Aerial image of Preston le Skerne gauging weir (blue mark denotes NGR)

Rowlands Gill - NZ1681558094



Legend



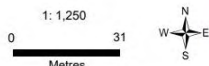
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Figure 8 – Aerial image of Rowlands Gill gauging weir (blue mark denotes NGR)

Stanhope - NY9836639040



Legend



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Figure 9 – Aerial image of Stanhope gauging weir (blue mark denotes NGR)

In 2018 a Larinier fish pass was installed at the Stanhope gauging weir. The proposed eel passage improvement scheme shall not impact the functionality of the Larinier fish pass.

Sunderland Bridge - NZ2653637721



Legend



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Figure 10 – Aerial image of Sunderland Bridge gauging weir (blue mark denotes NGR)





Figure 11 – Aerial image of Witton Park gauging weir (blue mark denotes NGR)

The Contractor will:

1. Undertake a site visit to each of the nine gauging weirs to obtain site information and assess feasibility for eel passage improvement.
2. Produce single technical note to document feasibility of eel passage improvement at the nine gauging weirs. Where eel passage improvement is not considered feasible, justification shall be provided.
3. Identify and appraise the options for eel passage improvement at the nine gauging weirs. (For pricing, it is assumed that all nine sites will be viable for eel passage improvement).
4. Undertake workshop to present outcome of site visit and options appraisals for each of the nine gauging weirs to the EA project team. (For pricing, it is assumed that the workshop will be for a maximum duration of 3hrs). The Contractor shall provide minutes for the workshop.
5. Produce separate options appraisal report for eel passage improvement at each of the nine gauging weirs. The option appraisal shall include high-level cost estimates for each option considered. The appraisal report shall also recommend the preferred option to be taken forward.
6. Produce an outline design (sketch) for the preferred option for each of the nine gauging weirs. The sketch shall also note of any site-specific hazards/constraints that will impact the detailed design and/or installation.

The Contractor shall also:

- a. Attend start-up meeting via MS Teams with Environment Agency project manager.

- b. Attend fortnightly progress call (max. 30mins) via MS Teams with Environment Agency project manager and produce and issue the minutes of the meetings.
- c. Actively seek efficient solutions and communication efficiencies to that could be reported through the Agency's efficiencies reporting process.
- d. Undertake the role of Designer under the Construction Design and Management Regulations (2015).
- e. Be responsible for complying with copyright, including the procurement of any licences required for the use of 3rd party data for the project.
- f. Comply with current Covid-19 restrictions.

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

Approach and Methodology (including Health & Safety, Sustainability and Quality Assurance):

- Identify proposed methodology to achieve the above outputs and confirm deliverables.
- The Contractor to advise and quantify any efficiencies in time, cost, quality, etc. by awarding the 9 projects into one contract. This will be reflected in the Contract Award Report.

Project Management (including programme plan):

- Programme shall include, but not limited to, the milestone dates in the payment schedule defined in Part 1 Section 3 of this form. Sufficient detail should be provided to verify the planned approach to delivering the various elements of the project within the required timeframes.

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 in Eel Regulations
- Experience in eel passage improvement scheme development and design

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

- Pen portraits for proposed staff (including reference to previous/relevant experience)

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	Complete start-up meeting; undertake site visits; prepare and issue draft Feasibility Technical Note.	December 2021	20%
2	Issue final Feasibility Technical Note; appraise options for eel passage improvement at the nine gauging weirs; undertake workshop and issue minutes for workshop; prepare and issue draft Options Appraisal Reports.	February 2022	30%

3	Issue final Options Appraisal Reports; and produce and issue draft Outline Design Sketches.	March 2022	20%
4	Issue final Outline Design Sketches and project completion.	March 2022	30%



**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		Fishtek Consulting	
Contractor Project Manager name		[REDACTED]	
Contractor project manager phone number:	[REDACTED] [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

Fishtek are a leading technical consultancy that specialises in fish and eel pass design. Comprised of an experienced team of fisheries biologists and civil engineers, we have designed over 150 fish passes and 200 eel passes to date, many of which have been built. Our design experience covers many types of eel pass, including gravity fed passes, tidal mitigation devices (i.e. dampers and spring retarders) and pumped eel passes, as well as novel solutions at complex sites (i.e. Hazelford eel pass on the River Trent which uses an existing boat ramp as a route for a gravity fed eel pass, or Abbey mill eel pass on the River Avon, which comprises a gravity fed channel that bypasses an existing tilting weir without the need for a pumped system). We recently completed the HNL eel pass project on behalf of the Environment Agency, which comprised the design and fabrication of eel passes and Low-Cost Baffle fish passes at 12 gauging weirs in the Thames catchment. We are also currently engaged by the Environment Agency to design a pumped eel pass at Brokenhurst gauging weir in the New Forest and for the fabrication and installation (based on Fishtek designs) of two pumped eel passes at complex tidal structures in Somerset. We propose to use our depth of experience to undertake a technical study that results in the identification of optimum eel passage solutions for the sites in question.

1. Start-up meeting

On contract award it is proposed to hold a remote inception meeting between the client and consultant team. The meeting provides an opportunity to confirm project objectives, submit any data requests (notably flow gauges and water level data) and confirm details regarding site access and any landowner requirements.

2. Site visits & surveys

The site visits will be carried out by an experienced fisheries biologist / fish pass designer and site surveyor. It is envisaged that all sites will be visited over a week period inclusive of travel. RAMS will be provided for client sign-off prior to the site visits, which will identify all risks and suitable mitigations to ensure safe working. The site-specific RAMS will also include a copy of Fishtek's Covid 19 policy, which meets the guidance set out in document 'Working safely during coronavirus (COVID-19) in construction and other outdoor work'.

All weirs will be viewed and a survey undertaken using GPS Surveying Equipment. At each site the following will be measured:

- Weir crest level(s)
- Weir toe level(s)
- Upstream and downstream bed levels
- Upstream and downstream water levels
- Crest width
- Adjacent bank/wall height
- Weir glacis gradient and length

The above will be collected in (m OD) meters above ordnance data and post survey processing will be undertaken to generate CAD files of the survey. It is necessary to obtain this information to help inform the feasibility and optioneering reports, and to act as base plan on which to undertake the outline design sketches. Without level data options will be very high level and may prove to be unsuitable at a later stage of the project.

It is preferred to undertake the site visits during a period of low flows and only areas safe to access will be surveyed, with most levels being taken from the bank. Safety requirements will include the use of life jackets and carrying a safety throw rope and this will be included in the site visit RAMS.

In addition to the site surveys, photos will be taken and a note made on the type of construction, access routes, the location of power and any other potential site constraints or opportunities observed.

3. Technical note

Following the site visit a brief technical note will be produced summarising the site observations and confirming the technical feasibility of achieving eel passage at the sites. Consideration will be given to current passability, site access, buildability, any likely remedial/additional works and the potential for impact on gauging function. If eel passage is deemed infeasible at any of the sites justification will be provided. Fishtek have designed a range of eel pass solutions at various type of structures including many gauging weirs and we believe there is likely to be a solution for each structure.

4. Options Appraisal

Options appraisal reports will assess the suitability of eel passage options at each weir and will culminate in a preferred option for each site. Options considered will likely include a range of gravity fed solutions (i.e. boxed eel passes, recessed eel tiles, vertical eel cassettes) as well as pumped passes. Do nothing will be a baseline option and may be suitable at some sites if they are already deemed passable (generally only applicable to small gauging weirs with a shallow glacis that is well covered by mosses or algae and has a shallow flow depth at low (<Q70) flows. It is assumed weir removal is not feasible at all sites as gauging function must be maintained, although this can be confirmed at project start up. At sites with existing fish passes facilities (i.e. Stanhope weir) the ability to retrofit an eel pass to the existing fish passes structure will also be assessed. A description will be given of each option type along with example reference sites including photographs and design information.

As part of the appraisal report site data will be summarised, which is expected to include the site surveys, photos, a line search before you dig services search, an environmental designation search and a listed structures search. Whilst these are unlikely to have a significant bearing on the preferred solution it is nevertheless key site information that is important to identify early in a project and should be included in site Pre-Construction Information in later phases of the project.

It is anticipated that the EA will be able to provide flow and water level data for each site and this will be summarised in tables and percentage exceedance curves generated to show the relationship between flow and water level at each site. It is understood that upstream & downstream water level data and flow may not be available for all sites, so the following approach will be undertaken to inform the options appraisal and designs:

1. If upstream & downstream water level data and flow is available then a percentage exceedance curve will be generated using all three data sets and this will be utilised to inform the appraisal and design.
2. The absence of downstream data is not critical as wherever feasible the eel pass should run to bed level downstream.
3. In the absence of water level data, flow data can be used to calculate depth at the weir crest using appropriate hydraulic formula.
4. Flow data is not critical for eel passage if upstream water levels are available to ensure the eel pass functions optimally for at least the Q99-Q70 percentage exceedance level.
5. In the complete absence of data water levels obtained during the site survey will be used and estimations made for low/high flow levels. In this instance a note will be added to the drawing to ensure levels are validated before finalising the detailed design. This could be achieved via level logging (re. solinst Levellogger 5) or spot level gauges

using levelling survey equipment.

Once the potential eel passage options have been identified and the site data summarised an options matrix will be used to identify the preferred option at each site. The matrix will score each option based on a set of pre-determined criteria, including likely efficacy for eel passage, buildability, potential impact to gauging function, cost estimate, maintenance effort and any others deemed critical after the sites have been surveyed. The main opportunities and constraints will also be summarised for each site.

Draft versions of the technical note and appraisal report will be submitted for comment before finalising.

5. Workshop

On submission of the reports it is proposed to hold a remote workshop to discuss the outcome of the feasibility and optioneering reports and present the preferred options to the client. This workshop provides an opportunity to explain the rationale behind the chosen option, answer any questions the client may have and agree on a final list of preferred options before progressing to the outline designs.

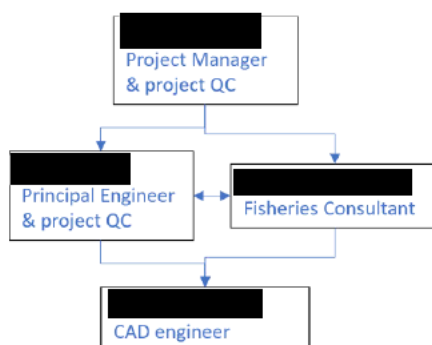
6. Outline drawings

Once the reports are accepted by the client, we will produce outline design sketches of the proposed options at each site. These will be produced using the CAD survey files in AutoCAD and provided to the client in PDF format. Each site will include a location plan, a plan view, an elevation (long section) and a typical cross section. Key dimensions, invert levels and water levels will be included, along with information on any specific eel crawling substrate, fixing requirements and any other ancillaries (i.e. pump and pump box location if a pump pass is deemed the optimum solution at any site). The drawings will provide sufficient information to inform the detailed design and fabrication/installation phase and where assumptions have been made this will be indicated on the drawings (for example when a water level is not certain and requires validating

Fishtek will undertake the role of Designer under the CDM regulations (2015) and will include a Designers Risk Assessment with any drawing. Safety, Health and Environmental information will also be captured on the drawings by way of SHE boxes.

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

A team Organogram is given below:



is an experienced Prince 2 trained Environmental Project Manager and will coordinate the consultant project team and be the main point of contact for the client Project Manager.

has the technical and management experience to deliver the project and has previously been successful in delivering EA Framework fish and eel pass projects, including:

-
-
-
-
-

Further details of the projects listed above and other relevant examples are given in section 3.

The eel pass design will be led by [REDACTED], being supported by our Fisheries Consultant, [REDACTED] and our CAD Engineer [REDACTED]. Pen portraits of each are given below. [REDACTED] will Quality Check all deliverables before submission.

The inception meeting between the consultant team and client team on MS teams will provide an opportunity for the key persons to meet and confirm the project deliverables. It is anticipated that from the client side there will be a requirement for input from H&T and fisheries, which are critical elements of the project. The inception meeting will also provide an opportunity to provide all data requests and to discuss site access and any specific stakeholder requirements.

Weekly meetings will be held between the consultant team to ensure tasks are being delivered according to the brief and the programme. During the site visits staff will check in with the project manager daily to confirm progress, raise any technical queries that may need input from the client PM, and for general safety and well-being.

Fortnightly progress updates will be provided to the client PM by the consultant PM in form of a fortnightly progress call, again via MS teams. Fishtek's PM will take minutes and issue to the client PM via email within 48 hours of the meeting. It is anticipated that fortnightly meetings will be sufficient, but if it something becomes apparent that requires more urgent attention then a meeting request will be sent to the client PM to hold an intermittent meeting to address the issue and thus minimise any delay to the project.

Three client review periods have been allocated:

1. At submission of the feasibility technical note
2. On submission of the options appraisal reports
3. On submission of the outline designs

10 days have been allocated for each review period. The purpose of defined review periods is to increase efficiency by collating all comments and addressing these in a single revision before final submission of the deliverables. This ensures key deliverable dates for final revisions are met according to the programme. The workshop can also be considered a review period as it will provide a chance for the client to question the consultants findings and rationale behind any conclusions & recommendations.

Quality

Fishtek maintains an in-house quality management system in accordance with ISO 9001. A two-stage quality management process is applied to all projects, with reports and drawings quality checked by one or more technical specialists (in this instance [REDACTED]) before finally being reviewed and signed-off by the project manager ([REDACTED]) for submission to the client. For example, an eel pass design would be reviewed by an eel pass engineer before undergoing a final review and sign-off by the project PM.

Design review meetings will be held internally, and the actions recorded. These meetings provide a chance to identify and mitigate design related construction risks, which will be captured in the Designers Risk Assessment, as well as on drawings via the use of SHE boxes.

Sustainability

Fishtek is a carbon aware company and we undertake specific tasks to reduce our carbon footprint. Fishtek has an electric pool vehicle, which is also charged at the Fishtek office from our Solar Panel array, therefore significantly reducing the carbon footprint of project activities. However, in this instance given the distance from the Fishtek office a Diesel estate will be used for the site visits, resulting in 0.470 t of carbon for an approximately 1,500 KM round trip. Fishtek propose to offset this carbon with a donation to myclimate.org who fund direct carbon off-setting projects as well as sustainable development projects in the developing world. Aside from the initial site visit the remainder of work will be undertaken remotely.

Where possible, we will defer to sustainable materials within the design and consider the carbon life cycle of the eel pass.

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

SHWG Fish and Eel pass Study and Design – Innovative eel pass at a tilting weir for [REDACTED] on behalf of the EA

Eel pass access by bankside lifting of Rd.

- 1st Motorisable hook to release sand closing latch
- 2nd Motorisable hook to lift lid

(getting over)
Eel pass pass commences at wall apex

Existing river wall faced in brickwork

Existing handrail

9.0m Slope Board Level

1500

9.0m Grade level

9% Eel Pass gradient

c. 80m existing apron level

Filling sluice gate in raised position

Filling sluice gate in lowered position

Flow rate 600 m³/sec reduced

Rip rap / rock to provide scour protection to reinforcing downstream concrete-lined river wall - See 3037 / 01

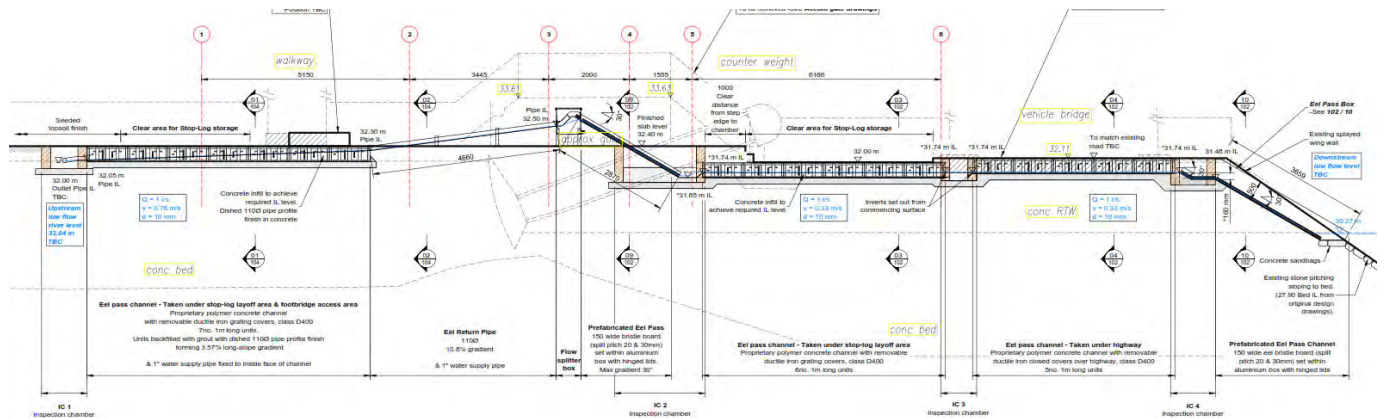
Concrete pad footing - See 3037 / 01

Existing concrete main duct

3032 / 02 Side Wall Elevation - Eel Pass

Hardmead Eel Pass – Pumped eel pass including telemetry for [REDACTED] on behalf of the EA

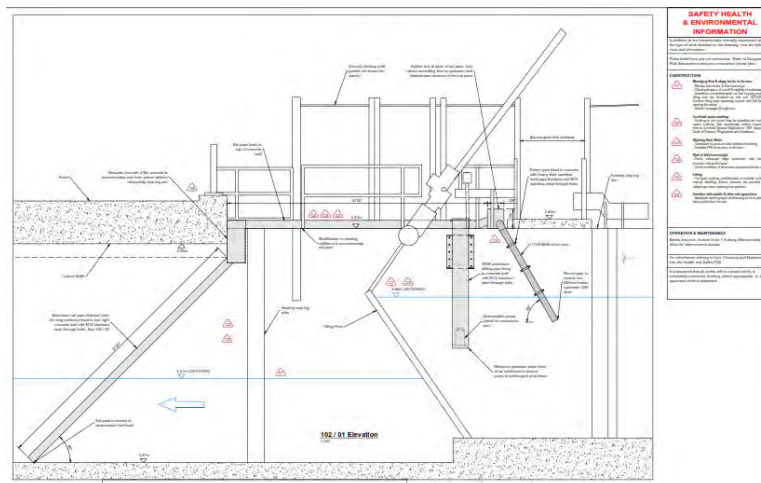
Fishtek recently designed Hardmead pumped eel pass on the River Lea on behalf of [REDACTED], who are delivering it on behalf of the Environment Agency under a D&B contract. The eel pass is 25 m long and comprises the concrete channel and pre-fabricated aluminium box channels lined with crawling substrate. The design overcomes a series of site constraints, such as having to pass under an existing highway and footbridge and around a tilting weir. The outlet pipe allows eel to exit many meters upstream of the tilting weir, thus reducing the risk of entrainment and the inlet runs to bed and is close to the upstream end of an existing barrier. The design incorporates a telemetry transducer which is wired into a control box on the site and gives warning should the pump fail. A secondary pump is pre-installed and is programmed to start-up in the event of primary pump failure.



Extract from Hardmead pumped eel pass design

Wessex Fish and Eel Passes – Pumped eel passes at complex tidal structure under the EA EcoSF3

Fishtek designed fish and eel passes at four structures on behalf of the Environment Agency under the EcoSF3, two of which are pumped eel passes in confined spaces at tidal sites. Fishtek procured and managed suitably qualified sub-contractors to undertake the site surveys and subsequently produced outline design drawings, with appropriate CDM information and SHE boxes, and completed NFPP form FP002 for client approval. The outline design at Beer Wall (below) comprises a pumped eel pass that has been designed to avoid existing site infrastructure, is suitably robust to withstand the high force and debris load of the river and allows for routine O&M from behind the existing hand-railing, negating the need for operatives to enter the watercourse. Once the outline design was approved Fishtek undertook the detailed design including Designer CDM roles and met SHEWCoP requirements. The designs are currently out to tender for construction and depending on the outcome Fishtek may fabricate and install the passes as a sub-contractor.

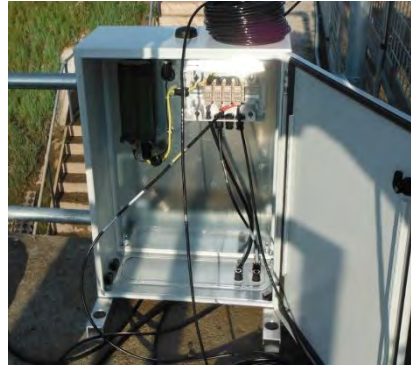


Extract from the Beer Wall Outline Design Drawing

Royal Drift - Eel passage R&D with pressure transducer and telemetry device

Fishtek understood R&D of their patented Tidal Gate Damper – a copolymer mounted tube that delays closure of the tidal flap beyond level equalisation to allow elver ingress – at Royal Drift on the Severn Estuary to establish it's effects. A monitoring set-up was installed that included pressure transducers on the fluvial and tidal side of the gate, salinity probes and an aperture device to measure the opening of the tidal structure in different conditions. All probes were ran back to a Kiosk box that contained a Frog Logger, which stored data and uploaded it to a server daily with the use of mobile data. The data was used to show the potential to delay gate closure for improving elver ingress but

without increasing flood risk or salinity of the upstream water body. Many tidal gate dampers have since been installed.



Southwest Water Eel regulations assessments

Fishtek assessed screen and passage requirements at seventeen sites for [REDACTED]. Assets were assessed to determine their compliance with the eels regulations, identify the present risk to eels, determine best practice screening and passage mitigation measures, and provide high level costs for identified options. Reports were produced identifying best practice eel screening and/or eel passage solutions, providing sufficient information for Fishtek to undertake the EA's cost benefit analysis of the preferred best practice solutions. Fishtek subsequently designed and installed mitigation measures at some of the sites, undertook additional assessments at other [REDACTED] assets, and are engaged to design and install further identified solutions to enable [REDACTED] to meet its Eels Regulations obligations.

Burnt Mill

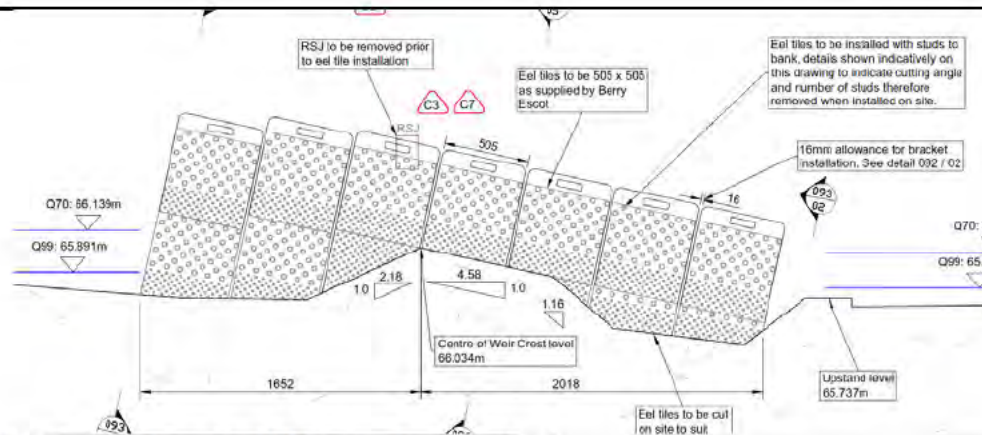
Fishtek designed a pre-barrage fish pass and eel pass at Burnt Mill weir, an Environment Agency owned gauging station on the River Cam. The eel tiles were recessed into the weir face and a concrete infill was formed in line with the crest to ensure no impact to the weirs gauging function. Fishtek undertook the initial trials on the effectiveness of recessed and mounted eel tiles at gauging weirs using a monitoring system comprising overhead IR CCTV and PIT tagging, at Lydney on the River Lyd.



Images of recessed eel tiles at Burnt Mill gauging weir and testing of mounted and recessed tiles at Lydney.

HNL eel passes

Working as a sub-contractor under the EA FCRM framework, Fishtek designed low-cost baffle fish passes and eel passes at 12 gauging weirs in the Thames catchment. Due to a low head drop with shallow flow and a good algal growth, one weir was discounted from the design. For the other weirs, due to the sensitivity and criticalness of the weirs gauging function, vertical eel cassettes were designed that comprised a series of vertically orientated eel tiles on HDPE backing boards that could slide between aluminium runners fitted to the channel wall. Fishtek also fabricated all the eel passes. Fishtek undertook the designer role under CDM, completing all detailed designs with DRA's and subsequently fabricated all the eel passes.



Example elevation drawing from the HNL fish eel pass project.

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

n/a

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

n/a


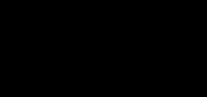
6. Quality Assurance (only complete if requested in defined evaluation criteria)

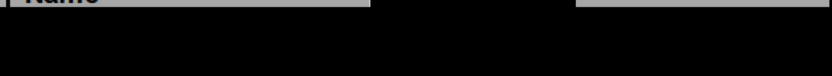
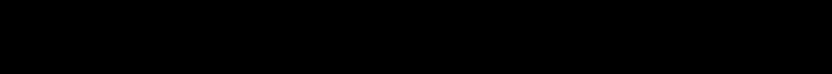
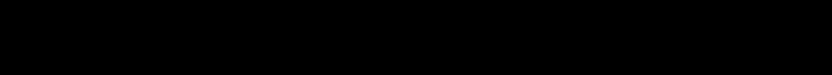

n/a

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. Inception, site visit & surveys					
2 Technical note					
3. Options Appraisals					
4. Outline design					
Expenses (please detail type i.e. travel, accommodation etc)					

<p style="text-align: right;">Total overall cost £33,785</p> <p><i>Note that our cost proposal is based on the award of all 9 sites under a single contract and cost efficiencies have already been included. Travel & subsistence is made more efficient by visiting all sites within the same week (traveling from our Devon based offices) and thus using less fuel and resulting in less carbon (which will nevertheless be offset). Likewise efficiencies been applied for the reports and designs. The cost of the project on a per site basis would be in the region of 30% more.</i></p>	
8.-Terms & Conditions	
<p>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.</p>	
Notes	<p>You must have a purchase order number from the Contracting Authority before you start any work in connection with this proposal.</p> <p>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.</p>
<p>By signing this form (<i>Fishtek Consulting</i>) 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).</p>	
Contractor Project Manager:	
Signature:	
Date:	29/10/2021

9. Confirmation of Instructions (Contracting Authority Project Manager to complete)			
Notes	<p>All agreed post submission amendments to scope, proposal, timetable or costs must be updated in the sections above prior to accepting the proposal.</p> <p>A commission code must be obtained from Stephen Perriss prior to confirming award and must be quoted on your purchase order.</p> <p>A Bravo ECM reference should be obtained from Commercial if the project has been issued via Bravo and quoted on your purchase order.</p>		
Authorisation	Name		Date
Contracting Authority Project Manager			16/11/2021
Authorized Contracting Authority Signature			16/11/2021
DgC Authorised Signature (if required)			17/11/2021
Commission Code			
Purchase order no.			

Bravo ECM Ref (if applicable)	
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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.

**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

