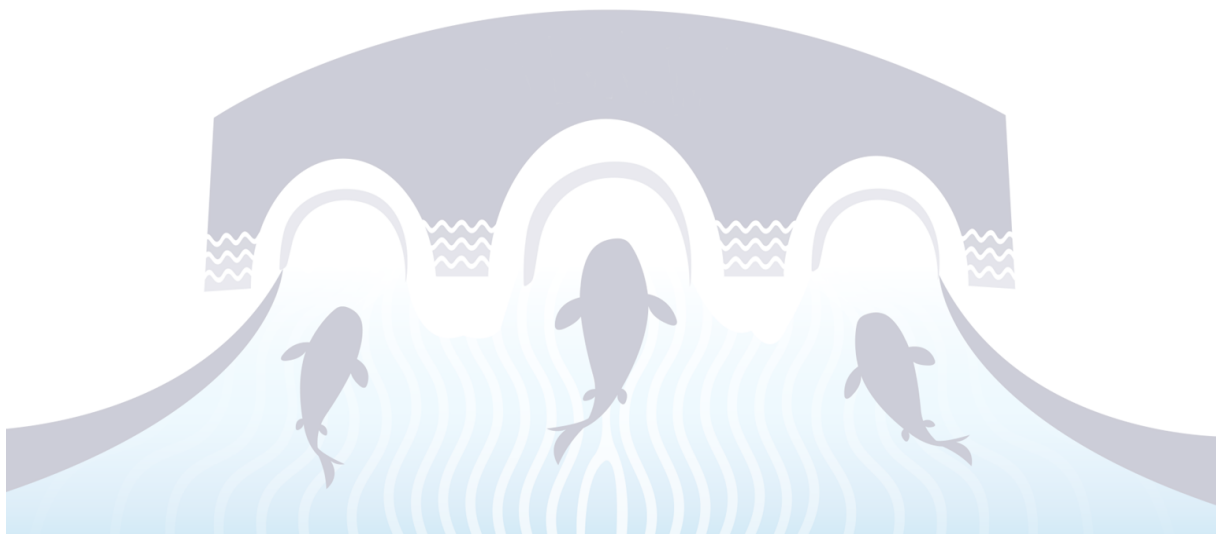




National Barrier Mitigation Programme

Barrier Mitigation Programme_ Lyrelane
Bundle Lyre Bridge – 0822007
Glenshelane Weir – 0823006

Scope of Services



Document Verification Sheet

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Lyre Bridge – 0822007 Glenshelane Weir – 0823006

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1 General Project Details

Inland Fisheries Ireland (the Client) is seeking to appoint a Consultant to assist the Client with the delivery of the Barrier Mitigation for two Projects within this commission, as specified below;

1. Lyre Bridge – 0822007
2. Glenshelane Weir – 0823006

For each project, the Consultant is to deliver Phases 1-3, in line with “IFI Project Phases”, as detailed in Figure 1 below. The Consultant is to provide separate deliverable documentation for each of the identified projects listed above, for the Phase 1-3 delivery, unless noted otherwise or as agreed with the client.

Following the completion of each Phase, there may be a break in the Consultant’s appointment. IFI reserve the right to subsequently reappoint the successful Consultant to undertake the next Phase in the project or to terminate the appointment at that point.

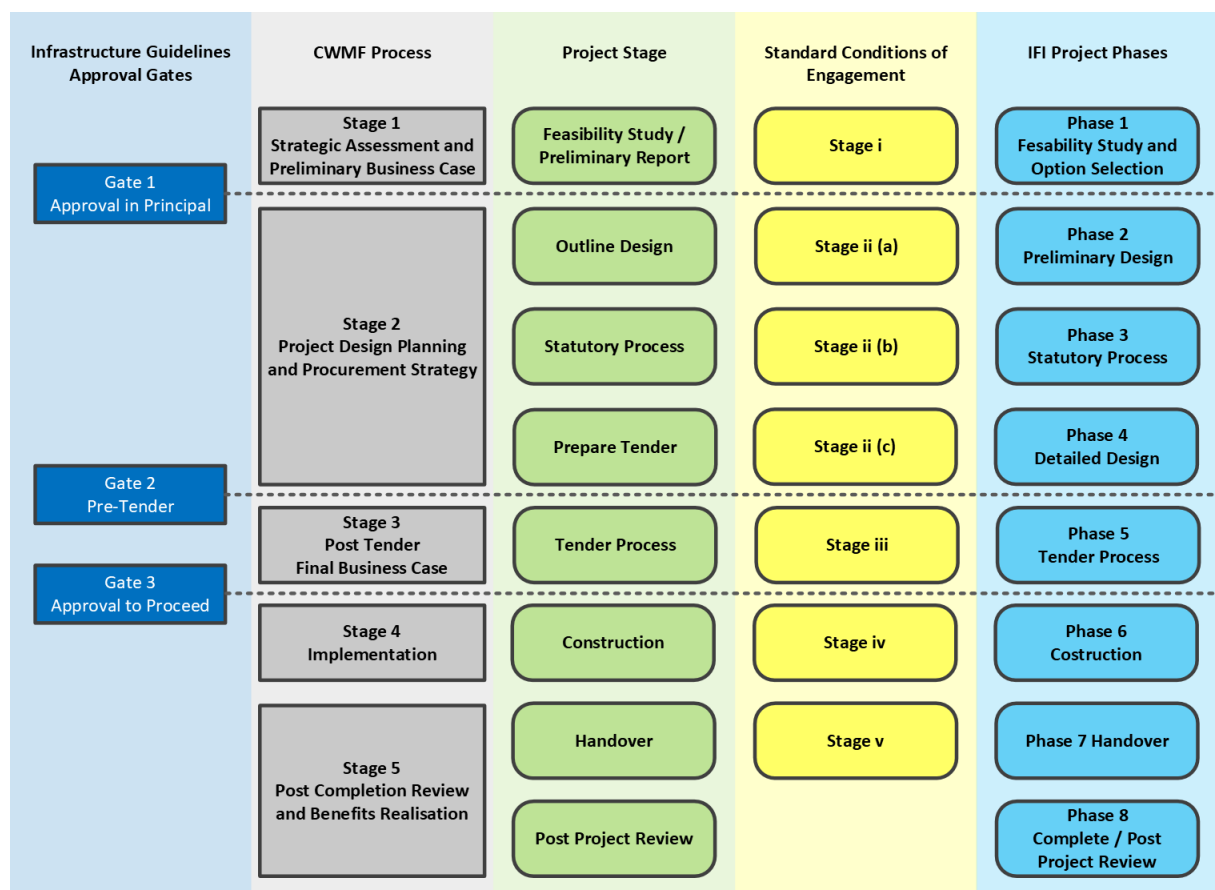


Figure 1 IFI Phases aligned with CWMF key life cycle Stages i-v

1.1 National Barrier Mitigation Programme

Over the past three decades, there has been growing global recognition of the need to maintain and restore free movement of migratory and non-migratory fish within rivers to allow them to complete their life cycles. In Europe, this principle is now well established. Since 1992, three key pieces of European Union legislation have expanded the focus of fisheries management and fish protection beyond commercially important salmonids to encompass all fish species:

- the Habitats Directive (92/43/EEC),
- the Water Framework Directive (2000/60/EC), and
- the Eel Regulation (EC/1100/2007).

In addition, the EU Biodiversity Strategy for 2030 – “Bringing nature back into our lives” (building on the earlier 2020 Strategy) commits to restoring river ecosystems by removing or adapting barriers to fish passage, re-establishing connectivity, and restoring spawning and nursery habitats in Europe’s rivers.

A central concept across these legislative frameworks is river continuity, which is especially emphasised under the Water Framework Directive (WFD). River continuity is a core environmental objective and a key indicator in assessing whether a water body achieves Good Ecological Status (GES) or Good Ecological Potential (GEP). To reach this standard, a river must be able to support populations of all naturally occurring migratory and non-migratory fish that were present prior to the construction of man-made barriers. This requires sufficient longitudinal connectivity to permit free movement of all migratory fish species. Where water bodies fail to meet GES/GEP, the WFD obliges Member States to implement measures to improve their ecological condition.

1.2 Project Objectives

This Barrier Mitigation Project (detailed in Section 2) aims to mitigate the impacts of the identified barriers on fish passage and restore more natural river processes along the associated rivers. The overall project objectives are as follows:

1.2.1 Restore Longitudinal Connectivity

- a. Remove/mitigate identified barriers to restore longitudinal connectivity
- b. Re-establish or improve upstream access for key migratory species including Atlantic salmon (*Salmo salar*), sea trout (*Salmo trutta trutta*), Sea Lamprey (*Petromyzon marinus*), River lamprey (*Lampetra fluviatilis*), and European eel (*Anguilla anguilla*), as well as improving connectivity for resident fish populations which are known to include Three-spined stickleback (*Gasterosteus aculeatus*), Stone loach (*Barbatula barbatula*), Minnow (*Phoxinus phoxinus*), Brook lamprey (*Lampetra planeri*), and Brown trout (*Salmo trutta*).

1.2.2 Reinstatement Sediment and Hydromorphological Processes

- a. Reduce sediment trapping by weirs/bridge aprons and restore natural sediment transport processes, contributing to improved channel function downstream.
- b. Implement riverbank stabilisation, regrading, and re-vegetation measures to support channel recovery and habitat diversity if and where deemed necessary.

1.2.3 Promote Environmental and Ecological Enhancement

- a. Enhance spawning and nursery habitat for salmonids and other native fish species.
- b. Contribute to the delivery of Water Framework Directive (2000/60/EC) objectives by supporting “High Ecological Status” classification.

1.2.4 Enable Circular Economy Outcomes

- a. Maximise opportunities for the reuse of demolition arisings (e.g. use of suitable stone or concrete in other local works).
- b. Investigate sustainable management and reuse of sediments in landscaping, restoration, or local authority projects, subject to testing and regulatory compliance

1.2.5 Support Policy and Regulatory Compliance

- a. Ensure compliance with all relevant environmental and planning legislation, including the Habitats Directive (92/43/EEC), Water Framework Directive, and EU Eel Regulation (1100/2007).
- b. Align with national and EU climate, biodiversity, and water management strategies, including the Nature Restoration Law and Ireland’s River Basin Management Plan.

1.2.6 Deliver Value for Money and Public Benefit

- a. Deliver the project in accordance with the Capital Works Management Framework (CWMF) and Infrastructure Guidelines 2023.
- b. Optimise project outcomes in terms of cost-effectiveness, sustainability, and long-term ecological and social benefit.

2 Project Description

The full commission of this tender includes 2 Barrier Mitigation Projects as detailed in Table 1 and

Figure 2 below. Further detail on each project within the bundle is provided in Section 2.1 to 2.2.

Site Number	Project Code	Project Barrier	County	U28 ID	Coordinates
1	0822007	Lyre Bridge	Waterford	18_2687_8	52.162449N 7.842419W
2	0823006	Glenshelane Weir	Waterford	18_2487_23	52.156023N 7.829528W

Table 1 Barrier Mitigation Projects

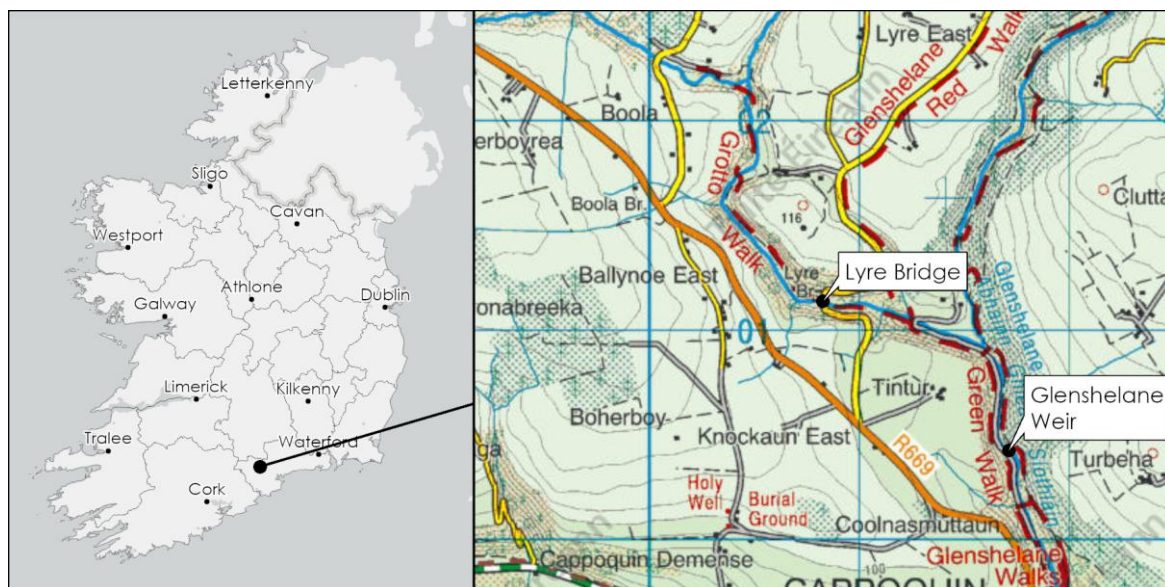


Figure 2 Location Maps of Lyre Bridge and Glenshelane Weir

2.1 Lyre Bridge

Lyre Bridge is located in Lyre East and Ballynoe East, County Waterford. It lies 4km north of Cappoquin town just off the R669 on the River Glenafallia, which feeds directly into the River Glenshelane. There is good access from both banks upstream of the bridge. The bridge is on a public road with a pedestrian walkway and forestry road leading down to the river.

The barrier at the Lyre Bridge is a concrete apron with a width of approximately 6 to 8m. It has been identified under the NBMP as an impassable barrier to fish passage, with a vertical hydraulic drop of approximately 0.6 metres. The apron spans the full width of the channel and creates smooth, shallow, high-velocity flow over its surface during typical conditions.

This structural profile and flow regime render the crossing impassable to weaker swimming species and very difficult for juvenile salmonids to traverse under most flow conditions. The vertical drop downstream creates a perched effect with no resting zones, further exacerbating passage difficulty. Upstream impoundment and the concrete base reduce habitat variability and disrupt sediment transport, impacting spawning and invertebrate habitat quality.



Plate 1 Lyre Bridge - Downstream



Plate 2 Lyre Bridge – Upstream

2.1.1 Barrier Impact

Species	Barrier Impact
Adult Salmon	Impassable
Salmon Smolt Downstream	Moderate
Adult Eel Downstream	Moderate
Eel Elver	High
Sea Lamprey	Impassable
River Lamprey	Impassable
Brown Trout	Impassable

Figure 3 Barrier Impact Score

2.2 Glenshelane Weir

The Glenshelane Weir is located in Turbeha, County Waterford on the Glenshalane River. Glenshelane Weir lies 2km north of Cappoquin town on the River Glenshelane, which feeds directly into the River Blackwater. Site access is via a well maintained Coilte road approximately 3m wide and is located just off the main road.

The weir at Glenshelane is ca. 2m high and poses a significant barrier to all fish and is impassable to certain species e.g. lamprey. Although the weir has a fish pass this is not believed to function well, if at all. Despite good upstream habitat salmon do not always reach areas further upstream. The Glenshelane River is located within the Blackwater River (Cork/Waterford) SAC where Atlantic Salmon is a Qualifying Interest. The weir also interferes with natural hydromorphological processes of the river by trapping sediment and starving the downstream reach.



Plate 3 Glenshelane Weir - Upstream



Plate 4 Glenshelane Weir – Downstream

2.2.1 Barrier Impact

Species	Barrier Impact
Adult Salmon	Moderate
Salmon Smolt Downstream	Moderate
Adult Eel Downstream	Moderate
Eel Elver	Low
Sea Lamprey	High
River Lamprey	Low
Brown Trout	Moderate

Figure 4 Barrier Impact Score

3 Project Constraints

There are a number of principal constraints on the identified projects, a non-exhaustive list of which is outlined below.

3.1 Programme

For the purposes of tendering the project commencement date shall be assumed to be 10 working days after the letter of acceptance has issued.

The Project Phases used in this brief are those of Inland Fisheries Ireland's National Barrier Mitigation Programme's bespoke Project Management Flow Chart. These are shown in Figure 1 IFI Phases aligned with CWMF key life cycle Stages i-v.

For the successful delivery of Phases 1-3 it is the responsibility of the Consultant to generate, resource and price their programme to meet the timelines as detailed in Table 2 and to submit this as part of their tender. A tender clarification should be submitted where the tenderers programme deviates substantially from the timelines in Table 2 with an accompanying explanation for the client's consideration.

The Consultant shall note that, if deemed appropriate, and with the approval of the Client, some Phases may run concurrently. The timeframes shown below is in align with the Performance Periods in Schedule B to the Form of Tender.

The Consultant shall further note that even though the projects are included in the same bundle for the purposes of tendering, they may progress at different rates, depending on planning exemptions, design of options, etc.

	Phase Description	Start Date	Length of Phase (months)	Deadline for Completion
1	Feasibility Study & Option Selection	Aug 2026	5	December 2026
2	Preliminary Design	December 2026	8	August 2027
3	Statutory Process	August 2027	8	April 2028

Table 2 Project timelines

3.2 Instream Works Window

The instream construction works associated with the barrier removal/mitigations are limited to a 3-month window of 1st July to 30th September, unless a derogation is given by IFI. Works may be permitted outside of this window providing all temporary works and any necessary mitigation measures are in place prior to the close of the instream works window. However, if the works area gets flooded out then works shall cease and not recommence until the next instream works window. This condition shall be incorporated into the works requirements by the consultant.

3.3 Clients Approval to Proceed

The Consultant shall be initially appointed to undertake Phases 1-3. The Consultant is advised that all phases for this project may not be required and progression beyond any particular phase will be at the Client's discretion. The Client will advise the Consultant on whether the project will proceed to the next phase and reserves the right to decide whether the project proceeds beyond any individual phase.

3.4 Electro-Fishing

Electro-fishing shall be carried out by a licenced fish rescue contractor appointed by the consultant and approved by IFI. IFI, where available, may assist with electro-fishing. Where electro-fishing is undertaken by IFI at no cost to the Contractor costs shall not be paid under the commission. A minimum of 2 weeks notice shall be required to mobilise the IFI electro-fishing team.

3.5 Site Access

IFI will carry out the initial contact with landowners in relation to access. It will be the responsibility of the Consultant to make appropriate access provisions as directed by the Client following their initial contacts with landowners (and any arrangements put in place).

All Consultant's staff or their Contractor's staff entering on landowner's property must be properly authorised by IFI in accordance with their procedures. The costs associated with complying with this and any measures required to comply with the "Code of Practice for the Prevention of the Spread of Animal Disease" shall be included in the Fee.

The Consultant shall include in their Design how a contractor shall access the project site. Works may require crossing privately owned land, where temporary access routes will need to be constructed. The temporary access routes will be constructed upon the consultation and agreement from the landowners in consultation with IFI. IFI will be responsible for seeking legal agreement with the relevant landowners. The land shall be reinstated to its original state following completion of works.

There will be a requirement for access to the sites from local, regional and national roads lands. The consultant and/or any contractor appointed will be required to clean the road on approaches to the sites to ensure they free of debris, obtain any necessary consents from the appropriate authority, erect appropriate signage and liaise where appropriate with An Garda Síochána and the Local Authority Roads Engineer.

The Consultant should note that non-native invasive plant species such as Japanese Knotweed and Himalayan Balsam may be present within the proposed site area. Care must be taken to prevent the further spread of Japanese Knotweed and Himalayan Balsam or other noxious weeds whilst undertaking any survey works. Article 49(2) of the European Communities (Birds and Natural Habitats) Regulations 2011 makes it an offence to spread or allow/cause the dispersion of non-native plant species specified in the Third Schedule of the Regulations unless in accordance with a licence granted under said regulations. Japanese Knotweed and Himalayan Balsam are both listed in the Third Schedule to the Regulations.

3.6 Client Provided Data

The Client will endeavour to make available to the Consultant a range of existing information and datasets relevant to the project. The Consultant shall be responsible for reviewing the data, the Client gives no guarantees to the accuracy, sufficiency, or completeness of any information provided. Information to be made available includes (but is not limited to):

- SNIFFER/IBAST survey reports for Lyre Bridge only
- IFI WFD Fish Research Team datasets and electrofishing records (accessible via IFI Open Data Portal).
- TÉ vector mapping under license

The Consultant shall verify the suitability of all information for its intended use and identify any gaps that require additional survey or investigation. For topographical survey for Glenshelane Weir and Lyre Bridge and where additional topographic, condition or geotechnical survey information required, and subject to agreement, IFI will cover the direct costs of the specialists employed in accordance with Section 4.11 Procurement. However, the appointed Consultant (under this commission) will include in their scope of works for managing the procurement of any additional survey work. All procurements shall comply with IFI and public procurement rules.

4 General Scope of Services

4.1 Overview

Inland Fisheries Ireland (the Client) is seeking to appoint a Consultant for Engineering and Environmental Consultancy Services to assist the Client with the delivery of the 2 proposed Barrier Mitigation Projects under a single commission, through the completion of Phases 1-3, as detailed in Figure 1.

The successful Tenderer (the Consultant) for this commission shall provide Project Management Services for each Phase, of the listed projects, demonstrate proficiency in respect to design, management, monitoring and implementing the proposed barrier mitigation works.

The Consultant shall review all documentation provided. Further to the general duties outlined below, additional tasks will be required at Phases 1-3 as detailed in this Scope of Services.

The Consultant will act as the Designer, Project Supervisor Design Process during all Phases of the project and carry out all related necessary duties.

4.2 General Services to be Delivered

The following should be read in conjunction with the 'Tender and Schedule' using the Standard Conditions of Engagement for Consultancy Services (Technical)' under the [Capital Works Management Framework](#).

The Client wishes to engage a suitably qualified and experienced Design Team for the delivery of the 2 identified Barrier Mitigation projects under this commission from Phases 1 to 3. The Consultant shall be expected to draw on national and international best practice, show initiative and consider all factors in the fulfilment of their role. The Consultant shall propose measures that will enable a cost efficient and timely delivery of the project.

In addition to the above all Consultants/PSDP shall comply with the service requirements as detailed below in Table 3 and Table 4. This is a non-exhaustive list, and requirements relate to both projects under this commission.

	General Duties of Lead Consultant
GDL.1	The Consultant shall provide and manage a team of suitably qualified and experienced professionals for the efficient, effective delivery of this service. They shall coordinate the production of deliverables from the team members in accordance with the commission programme agreed with the Client.
GDL.2	Provide a single detailed Commission/Project Execution Plan (C/PEP) for the relevant Phases of the brief, defining how the project will be developed and actions implemented, outlining roles and responsibilities, setting out project milestones and costs and identifying project risks, for each of the 2 projects under this commission.
GDL.3	Establish office procedures for drawings and document files, etc.
GDL.4	Interpret to Inland Fisheries Ireland's staff, as necessary, drawing details and specification clauses. Survey and prepare records of parts of the works where specialist or other details may be required for the use of Inland Fisheries Ireland.
GDL.5	Attend all project and health and safety meetings (a H&S update to form part of the monthly progress meeting agenda and cover all projects under this commission) as required by the Client including the preparation of agendas, progress reports, meeting minutes, technical notes, risk registers etc. These meetings will cover all projects and the timeframe required to cover the 2 projects at each meeting shall be included within the Consultant's fee. Prepare draft minutes for all meetings attended and issue to the Client within one week after the meeting. All project meetings and technical meetings shall be attended by the relevant members of the design team as required.
GDL.6	Develop a single Risk Management System for the project. A single Risk Register shall be established at the start of the commission, (with project specific risks clearly outlined in the document), and maintained throughout the commission lifecycle. Assess and mitigate project risks and health and safety risks in consultation with the PSDP and other team members. Furthermore, the Consultant is to pay special attention to highlight and include environmental risks in the register.
GDL.7	Develop a single Cost Management System to identify and mitigate, where feasible, all risks to quality, cost, and delivery of the commission to the designated completion date, with project specific risks clearly outlined in the document. Update as required and inform the Client as appropriate throughout the duration of the contract (process update to form part of the

General Duties of Lead Consultant	
	monthly progress meeting agenda and cover all projects under this commission).
GDL.8	Implement appropriate document management strategy between all parties.
GDL.9	Maintain correspondence files including letters, emails, minutes of meetings, telephone notes, SMS messages etc and make available to Inland Fisheries Ireland on request. All correspondence should assign the exact project naming convention as provided and specific project title where the correspondence relates to one of the two projects specifically.
GDL.10	Duties are to include the preparation and submission of reports detailing any incidents, unusual circumstances, information required as necessary to the Client. All reporting should assign the exact project naming convention as provided and specific project title where the correspondence relates to one of the projects specifically.
GDA.11	Record the details of any occurrence or situation thought likely to cause delay or of any delays which do occur in relation to the contract and inform the Client.
GDA.12	Develop a single Consultation and Stakeholder Engagement Plan for the commission, with project specific information clearly outlined in the document where necessary, including the identification of all relevant stakeholders and statutory bodies, a detailed schedule for engagement and details of how the engagements will be managed and monitored. Landowners and the relevant Local Authorities will be the primary Stakeholders. This can form a section within the C/PEP. IFI shall assist with identifying landowners and landowner engagements.
GDA.13	Prepare all works or other service tender documents as required under the contract in draft format initially for Client review and comment and final version. The final version to be submitted in both a redline format (showing comments addressed and updated text in red, where applicable) and standard final version to easily review changes made by the consultant for final review and approval. An additional version may be required where comments haven't been addressed, or additional comments arise from changes.
GDA.14	Fully comply with Irish Language requirements in accordance with the <u>Official Languages (Amendment) Act (2021)</u> as necessary through the course of the project.
GDA.15	Provide all services and resources necessary to deliver services for each Phase as listed under Section 5.
GDA.16	Fully comply with <u>General Data Protection Regulations (GDPR)</u> .

Table 3 General Duties of Lead Consultant

Health & Safety Consultant/PSDP	
HSA.1	Complies with the requirements of the Safety, Health and Welfare at Work Act 2005, as may be amended or supplemented from time to time; and the Safety Health and Welfare at Work (Construction) Regulations 2013.

	Health & Safety Consultant/PSDP
HSA.2	Advise the Client on health and safety matters.
HSA.3	The Consultant shall be responsible for the management (regarding health and safety) of all works/surveys/assessments/investigations to be carried out during each Phase of each project. In addition, the Consultant shall assess the competencies of any (sub)contractors/surveyors/designers to carry out the works safely and make recommendations to the Client on the competencies of all Project Supervisor Construction Stage (PSCS) appointments.
HSA.4	Fulfil the role of Designer in compliance with Safety, Health and Welfare at Work (Construction) Regulations 2013 for all elements of the contract as appropriate. Comply with all the requirements of a Designer as set out in the Health and Safety Authorities ' <u>Guidelines on the Procurement, Design and Management Requirements of the Safety Health and Welfare at Work (Construction) Regulations 2013</u> '
HSA.5	Manage the health and safety requirements of any works/surveys/assessments to be carried out and assess the competency of those appointed to carry out the works safely.
HSA.6	The Consultant(s) shall immediately advise the Client verbally, and afterwards in writing of any accidents or dangerous occurrences, loss or damage to any personnel, third parties or property arising during the execution of their duties in relation to this project. Such accident reporting to the Client shall not relieve the Consultant of his statutory responsibilities for accident reporting to the relevant statutory authorities and/or insurers.
HSP.7	Assist the Client in identifying, obtaining and collating the pre-construction information and provide pre-construction information to designers.
HSP.8	Ensure that all designers including that of temporary work designers and permanent work designers comply with their duties and co-operate with each other. Maintain a single register of all designers involved in the commission, with project specific information clearly outlined in the document.
HSP.9	Identify hazards arising from the design or from the technical, organisational, planning or time related aspects of the project. Maintain a register of all hazards and mitigations. Issue to all designers and maintain record of information and directions issued by the PSDP to any designer.

Table 4 Health & Safety Consultant/PSDP

4.3 Health & Safety Requirements

The Consultant shall perform all duties required under Health and Safety legislation. The Consultant shall advise the Client on any Health and Safety matters particularly in relation to current law, which may have implications for the Client, or require action by, or on behalf of, the Client in connection with the commission. The Consultant is required to prepare a project Safety File at the commencement of the commission and maintain and update the Safety File for the full duration of the commission. The Consultant will be required to include Health and Safety as an item on the agenda for each progress meeting and shall address any safety

item that arises during the project. All matters relating to safety shall be included and updated on the Safety File. The PSDP shall on completion of the commission provide the Client with the Safety File for the commission.

The Consultant will be appointed as Project Supervisor for the Design Process (PSDP) for the Project under the Safety, Health, and Welfare at Work (Construction Regulations) 2013. The PSDP shall fulfil all relevant obligations of the PSDP as defined in Safety, Health, and Welfare at Work (Construction Regulations) 2013 for the duration of the Project.

4.4 GDPR and Data Processor Management

IFI retains overall responsibility for the protection of personal data under its control. Under this role IFI require all appointed Consultants to sign our Data Processing Agreement (template included in background information). Any data processor with whom IFI engages has an important role to play to enable IFI to comply with its regulatory obligations, which includes personal data breach notifications, where they may occur. IFI shall ensure that processing by a processor is governed by a contract. Included in this contract shall be a stipulation that the processor shall assist IFI in ensuring compliance with its obligations to implement appropriate security and to assist IFI in handling personal data breach notifications, where required.

Any processor which becomes aware of a breach of personal data it is processing on behalf of IFI must notify IFI without undue delay. This obligation on the processor allows IFI to address the personal data breach in a timely manner, determine the severity of the breach and assess its requirement to notify the supervisory authority and possibly affected individuals in the case of a high-risk breach.

4.5 Progress Reports

The Consultant shall prepare Progress reports for presentation at each monthly progress meeting. The Progress Reports will include, at minimum, the requested information below, for all projects in a single document. Progress reports shall be issued three working days prior to the applicable progress meeting.

- Health & Safety Issues
- Progress update
- Finances
- Programme
- Programme look-ahead for next period
- Stakeholder management – Consultation in the period and look-ahead for next period
- Risk management
- Register of Issues and Actions

4.6 Meetings & Workshops

The Consultant shall attend monthly progress meetings with the Client. These meetings will cover all projects and the timeframe required to cover all projects at each meeting shall be

included within the Consultant's fee. Meetings are to include the preparation and issue of progress reports, minutes and Action/Decision lists of meetings with financial updates. Meetings to be attended by Project Director, Project Manager and other key personnel as required.

The initial progress meeting and quarterly thereafter shall be in-person from the IFI Clonmel Office (or alternative location as agreed by the Client). All other monthly progress meetings shall be held online via MS Teams, unless stated otherwise.

The Consultant shall also allow for 2 no. landowner meetings for each site and 2 no. planning meetings with the three local authorities with statutory powers for these sites, for the purpose of this tender. These are to be in-person meetings.

4.7 Programme

It is anticipated that the project will commence in August 2026.

The Consultant shall prepare, provide and maintain a master programme, in co-ordination with any agreed programmes prepared by others. The Consultant shall submit to the Client within 10 working days from appointment a detailed master programme for the commission that will outline the various components of each phase for each project at commencement. The programme shall be submitted in both .pdf and .mpp formats. The master programme shall be in Microsoft Office Project or a format agreed with the Client.

The master programme shall be updated and reissued to the Client on the completion of each Phase or Sub-Phase and/or when requested by the Client (submitted in both .pdf and .mpp formats). The programme shall outline the critical path in the delivery of the project to completion, highlight risks to the programme and any milestone dates that have to be achieved, e.g. seasonal surveys, etc. and shall as a minimum (non-exhaustive list) show the following:

- The planned commencement date for each Phase of the Services.
- The planned date for completion of the Services within each Phase.
- The order and timing of any activities which the Consultant plans to do in order to provide the Services and meet the Milestones.
- Other information which this Scope of Services requires to be shown in the programme.

The programme shall be actively monitored, it shall be the responsibility of the Consultant to ensure the programme is on track and where required provided additional project resources to bring the programme back on track, at no additional cost to the Client.

Changes to the initial agreed programme or revisions shall be agreed with the Client and the programme revised and submitted to the client within 5 working days.

As part of monthly progress reports and meetings, the Consultant shall submit to the client the most recent agreed programme and export reporting from MS Projects (or similar as approved) showing actual progress to date marked on it and report on performance, activity,

programme and progress. Any slippages and risks to the programme shall be reported on corrective action to be taken by the Consultant at each progress meeting.

4.8 Consultation & Stakeholder Engagement Plan

The Consultant will be required to undertake extensive consultation during the development of the projects. At the outset of the project the Consultant shall prepare a Consultation and Stakeholder Engagement Plan, setting out the objectives, methodology, programme, and responsibilities for all consultation activities. A list of stakeholders shall be identified at an early stage and reviewed regularly to ensure it is current and accurate. Records shall be kept, which will include details of potential issues, potential accommodation works requested and details of proposed mitigations if necessary.

The Consultant shall also allow for a minimum of 5 no. meetings with stakeholders in addition to landowners and the local authorities (as set out in Section 4.6).

Consultants must allow for meetings and consultation with a number of interested parties. The following parties shall be engaged as a minimum:

- Waterford City and County Council
- Uisce Eireann
- OPW
- Coillte
- Adjacent landowners where access is required
- National Parks and Wildlife Service
- National Monuments Service
- Utility Service Providers
- Specialist representative organisations such as Local Angling societies, interest groups

4.9 Public Relations

The Consultant shall provide input to media relations when requested to deal with issues that arise throughout the project. The Consultant shall be required to report to the Client's Representative and the Client's Liaison Officer and all media releases shall be undertaken by IFI directly.

The Consultant shall seek prior approval from IFI before publishing any details of the project on any platform even if it is for their own company promotion.

4.10 Cost and Risk Management

The Consultant shall undertake the management of cost, value, and risk throughout the commission and provide a report at progress meetings to the Client. The Consultant shall prepare an outline cost plan in accordance with the Capital Works Management Framework (CWMF). Estimates shall be benchmarked against comparable recent projects, with allowances for risks, inflation, and optimism bias, as recommended in the Infrastructure Guidelines 2023.

The Consultant shall where appointed include for the completion of the Client's standard Business Case template (included in Background Information Pack), as an output for the appropriate phase of the commission.

- Business Case – Preliminary (Phase 1 Feasibility Study & Option Selection)

The Consultant shall appoint a Risk Manager (this role may be assigned to a suitability competent existing project team member e.g. Project Manager or Lead civil/structural engineer) for the duration of the commission and shall be responsible for completing and managing all risk management processes and deliverables. Services shall include a Risk Management Strategy and a live Risk Register developed at the commencement of the commission, monitored and amend the risk register throughout each Phase.

4.11 Procurement

Where a service provider or contractor is to be directly contracted to the client, then the Consultant shall comply with and carry out the procurement process in line with the timelines as detailed in Table 5 IFI Procurement Timeframes and the financial thresholds as detailed in Table 6 IFI Procurement Thresholds, unless otherwise instructed by the client. Cost for this service provider or contractor or utility provider shall be paid separately by Client. The Consultant shall prepare documentation, run the procurement and administer the contract on behalf of the Client.

Choice of procedure and stage (all tendering through E-Tenders)	Standard timescale Below EU Threshold	Standard Timescale Above EU Threshold (OJEU)
OPEN		
Publish RFT to receipt of responses	21-30 days, dependent on complexity	30 days
Standstill	As stated in RFT (Min 7)	14 days
RESTRICTED		
Publish EOI to receipt of responses	21-30 days, dependent on complexity	30 days
RFT to receipt of bids	21-30 days, dependent on complexity	25 days
Standstill	As stated in RFT (Min 7)	14 days

Table 5 IFI Procurement Timeframes

Inland Fisheries Ireland Procurement Thresholds (Red, Amber, Green denoting relative risk classification)

Procedure	Goods & Services Supplier or IFI Terms & Conditions	Works Related Services CWMF Terms & Conditions	Works CWMF Terms & Conditions
No quotes	Less than €500 No quotes required Endeavour to ensure best value by appropriate market research.		
Verbal Quotes	€500 - €1,000 Needs analysis and seek 3 Verbal Quotes from interested and competent providers.		
Written Quotes	€1,001 - €5,000 Needs analysis and seek 3 Written Quotes from interested and competent providers		
Select Tenders (direct invitation)	€5,000 - €50,000 Business case, conflict of Interest and seek 3 Written Tenders from interested and competent providers. Use www.etenders.gov.ie Simplified Procedure for select tendering.	Up to €50,000 Business case, conflict of Interest and seek 5 Written Tenders from interested and competent providers. Use www.etenders.gov.ie Simplified Procedure for select tendering.	Up to €200,000 Business case, conflict of Interest. Use www.supply.gov.ie or seek 5 Written Tenders from interested and competent contractors. Use www.etenders.gov.ie Simplified Procedure for select tendering.
Public Tender	€50,000 - €216,000 (EU Threshold) Business case, conflict of Interest and public tender with a Contract Notice published on www.etenders.gov.ie	€50,000 – €216,000 (EU Threshold) Business case, conflict of Interest and public tender with a Contract Notice published on www.etenders.gov.ie	€200,000 – €5,404,000 (EU Threshold) Business case and public tender with a Contract Notice published on www.supply.gov.ie or www.etenders.gov.ie
Public Tender (OJEU)	Above €216,000 (EU Threshold) Business case, conflict of Interest and public tender (open or restricted) with a Contract Notice published on www.etenders.gov.ie and in the OJEU	Above €216,000 (EU Threshold) Business case, conflict of Interest and public tender (open or restricted) with a Contract Notice published on www.etenders.gov.ie and in the OJEU	Above €5,404,000 (EU Threshold) Business case, conflict of Interest and public tender (open or restricted) with a Contract Notice published on www.etenders.gov.ie and in the OJEU

Requisitioners **must** aggregate expenditure where possible to ensure effective use of resources and achieve best value for money outcomes.

The estimated value of a contract is based on the total amount payable including any proposed extensions or renewal options listed in the tendering documents.

Where the estimated contract value is within 10% of an upper threshold, then the upper threshold should be applied.

Table 6 IFI Procurement Thresholds

4.12 Statutory Consent

4.12.1 Planning General

The Consultant will review existing and proposed plannings/zonings in a 10km area around the projects. The Consultant will provide the Client with full planning advice on other developments/proposals and the impact they may have on the project or vice versa.

The Consultant shall undertake all services necessary to progress all the Projects through the statutory planning process, ensuring full compliance with the Planning and Development Acts 2000–2023 and associated Regulations. In cooperation with the project partners the Consultant will be required to liaise, meet with and cooperate with all local authorities in relation to the procuring planning exemptions (refer to Section 4.12.2 for further detail) or lodging the full planning application(s).

The Consultant shall prepare all necessary planning documentation, including application forms, planning report, statutory notices, maps, drawings, and supporting technical and environmental reports (e.g. Preliminary Design Report, Environmental Report).

The Consultant shall ensure inclusion of all relevant environmental assessments—AA Screening, NIS, where required, Article 6(2) report where planning exemption route is applicable, EclA/Environmental Report, and EIA Screening—and coordinate with all local authorities to confirm submission requirements, timelines, and validation standards. The

Consultant shall provide support for statutory and public consultation (providing a minimum of 2 project team members or as agreed with the client), ensuring alignment between Planning Act procedures and project-level engagement. The Consultant shall attend meetings and workshops with Waterford City and County Council and statutory consultees (NPWS, OPW, EPA, DHLGH) as required, and respond to clarifications, further information requests, or required modifications during the determination. The scope and fee for responding to such further information requests shall be agreed with the Client once their scale is known.

The Consultant shall undertake the following as part of the planning process:

- The Consultant shall devise the planning strategy for each project and review and refine as matters progress to enable planning consent to be obtained in a timely fashion. The aim shall be to seek a planning exemption for the project where possible.
- Visit the site locations.
- Review all previously prepared planning documentation relating to existing planning history, planning brief and planning policy.
- Lead on the pre-planning application discussions and negotiations with the Planning Authorities and where necessary other key consultees.
- Advise on the need for other specialist Consultants for the planning process, and provide briefing, co-ordination and liaison as required.
- Liaise with other Consultants regarding other specialist reports and documents required for the planning submission.
- Advise on the need for any supplementary supporting information.
- Co-ordinate and prepare the planning application ensuring provision of supporting information to enable validation of the planning application at the first opportunity.
- Administer and monitor the planning application process; provide update within the monthly progress reports.
- Arrange and attend post-submission meetings with the relevant authorities and/or IFI and other interested parties.
- Obtain and comment on the planning Notification of Decision to be issued by the local authorities and/or conditions and negotiate variations as necessary.
- Obtain final planning decisions and advise IFI regarding any consequential planning matters.

4.12.2 Planning Exemption

The Consultant shall produce all project documentation as required to seek exemption under Section 5 of the Planning and Development Regulations 2001, as detailed below:

CLASS 35 Development consisting of—

(a) the carrying out by or on behalf of a statutory undertaker of any works for the maintenance, improvement, reconstruction or restoration of any watercourse, canal, river, lake or other inland waterway, or any lock, quay, mooring, harbour, pier, dry-dock or other structure forming part of the inland waterway or associated therewith, and any development incidental thereto,

(b) the erection or construction by or on behalf of a statutory undertaker of facilities required in connection with the operation, use or management of a watercourse, canal, river, lake or other inland waterway.

The Consultant shall liaise with the relevant Authorities with regard to obtaining planning exemption. A minimum of two in-person meetings, per project, shall be included for this.

Where a planning exemption is not granted, the Consultant shall review and progress to preparation of a full planning application. The Client shall determine the course of action and issue any necessary instructions in accordance with the Conditions of Engagement.

Separate line items have been included in the pricing document for:

- **Preparation of a planning exemption**
- **Preparation of a full planning application. (Extra over/additional costs associated with)**

If a planning exemption is granted then the requirement for full planning preparation and submission shall be descoped from the scope of services, and no costs are payable for preparing a full planning application.

4.12.3 Review of Planning Approval Outcome

The Consultant shall include in their price a review of and report on the outcome of the statutory approval process where there are comments or conditions attached that require design amendments or significant capital outlay for fees. The report shall outline the likely cost, time and design implications of such comments and conditions.

Where additional work is required to the preliminary design following this review, the scope and fee for this work shall be confirmed and agreed between the Client and the Consultant once the extent and nature become known.

5 Phase Specific Requirements - for all Projects under this Commission

5.1 Phase 1 Feasibility and Options selection

The Consultant shall undertake the feasibility and option selection design, including any preliminary design necessary to deliver a safe, practical and cost-effective barrier mitigation solutions. The design shall comply with relevant Eurocodes and best practice for in river works. The stage shall involve assessing the site conditions, ecological constraints, and technical challenges associated with the barrier to fish migration.

The scope of services required by the Client consists of all services necessary or desirable for the purposeful delivery of the schemes, including but not limited to:

- Conduct a full review of all past site history, any safety files, previous designs, planning documentation for the site and any other relevant data sets.
- Provide Project Management services including attending Project Meetings, providing Progress Reports and perform Safety & Health Duties
- Conduct a Preliminary Environmental Assessment.
- Visiting the Sites and carrying out an initial appraisal.
- Undertaking development of a single Commission/Project Risk Register, with project specific risks clearly outlined in the document and maintained throughout the commission lifecycle.
- Undertaking development of the Design Responsibility Matrix, Information Exchanges and the Commission/Project Execution Plan (C/PEP).
- Carrying out preliminary surveys and investigations necessary for development of the Feasibility and Option Selection Report. Scope and prepare all tender and contract documents necessary for the procurement and appointment of a suitably qualified and experienced topographic and hydrographic/bathymetric surveyor for Glenshelane Weir and Lyre Bridge sites.
- Development of proposed mitigation options for each project, using a multi-criteria analysis for the selection of a preferred option as set out in Section 5.1.4 and to include a hierarchy of preferred mitigation measures:
 - Full removal
 - Partial Removal or Breech
 - Rock Ramp or Pool and Boulder Pass
 - Bypass Channels
 - Technical Fish Pass
- Scope the requirements for any necessary assessments and surveys for the development of the preferred option, i.e. Geotechnical, Environmental, Cultural heritage, Hydraulic, Sediment analysis etc.
- Completion of the Business Case – Preliminary

5.1.1 Topographical & Hydrographic/Bathymetric Survey^[OBJ] for Lyre Bridge & Glenshelane Weir

The Consultant shall scope and prepare all tender and contract documents necessary for the procurement and appointment of a suitably qualified and experienced topographic and hydrographic/bathymetric surveyor.

The Consultant's duties related to the tender process include:

- Providing the final tender documents to the Client in PDF format.
- Managing and providing all tender clarifications in response to queries received by the Client during the tender competition.
- Preparing a tender assessment report on the received submissions.
- Administering the survey contract and certifying payments to the appointed service provider.

5.1.2 Survey Scope and Requirements

The survey shall cover, at a minimum the study area represented in the drawings, in Appendix B and associated riparian corridors and floodplain extents, extending upstream and downstream as necessary to capture potential project impacts including potential interactions between barriers and options.

The scope of the required topographic and hydrographic/bathymetric survey must be sufficiently comprehensive to enable hydraulic modelling using HEC-RAS (or similar approved software).

The Consultant shall be responsible for reviewing all submitted survey data.

5.1.3 Cost Allocation

The Client shall be responsible for directly paying the cost of the topographic and hydrographic/bathymetric survey itself. All other costs associated with the procurement and administration of the survey contract must be allowed for by the Consultant within their tendered price.

5.1.4 Option Selection Process

The Consultant shall undertake an Options Selection Process to identify, evaluate, and recommend the preferred approach to barrier mitigation at the two barrier locations. The Consultant should note that some or all of the elements listed in Preliminary Design phase of report may need to be carried out at option selection stage to properly inform option development, assessment and selection of the preferred option for each project.

The objectives of the Options Selection Process are to:

- Set out the Project baseline (to form the initial chapters of the Feasibility and Option Selection Report), including, at a minimum:
- Project Information
- Project Objectives

- Sustainability Aspirations
- Project Budget
- other parameters or constraints
- Develop a range of viable options for each location, including, inter alia, full removal, partial removal, structural modification, Rock Ramp or Pool and Boulder Pass, bypass channels, technical fish pass installation or integrated river restoration measures.
- Assess the environmental, technical, social, heritage, and economic implications of each option in line with the Water Framework Directive, Habitats Directive, and relevant national policy including assessment of a do-nothing option.
- Ensure that sediment management, utilities, landownership, and cultural heritage constraints are considered.
- Provide an evidence-based comparison of options through Multi-Criteria Analysis (MCA), supported by stakeholder input and public consultation.
- Identify and recommend a preferred option (or suite of options) for each barrier for progression to preliminary design and statutory approval.

5.1.5 Options Development

The Consultant shall develop a comprehensive set of feasible options to address fish passage barriers at each of the two identified barrier locations.

In developing options, the Consultant shall:

- Consider a full range of barrier mitigation approaches, including but not limited to:
- Complete removal of the barrier with associated river restoration
- Partial removal or lowering of barriers.
- Installation of technical fish passes (e.g. pool-and-boulder, rock ramps, bypass channels).
- Refurbishment or adaptation of any existing structures where feasible.
- Hybrid solutions combining structural modification with ecological and river restoration measures.
- A “Do Nothing” option for baseline comparison.
- Assess the feasibility of sediment management solutions in parallel with each structural option, ensuring compliance with circular economy principles and regulatory requirements.
- Take account of landownership, utility constraints, access requirements, and cultural heritage assets etc.
- Identify opportunities for wider ecological and social benefits, including riparian habitat restoration, biodiversity enhancement, improved public safety, and amenity integration.
- Develop outline drawings, descriptions, and indicative cost estimates for each option, supported by risk registers and construction considerations.

5.1.6 Options Assessment

The Consultant shall undertake a comprehensive assessment of all options developed. The assessment shall consider the technical feasibility, environmental implications, social acceptability, cultural heritage sensitivities, and economic efficiency of each option.

The assessment shall:

- Evaluate each option against the project objectives, with a focus on restoring longitudinal connectivity, reinstating natural sediment and hydromorphological processes, enhancing ecology, addressing redundant infrastructure, and delivering value for money.
- Consider potential environmental effects on designated sites, protected species, habitats, and water quality, drawing on outputs from the Preliminary Environmental Assessment.
- Assess technical feasibility, including constructability, engineering constraints, sediment management requirements, potential for ground movement due to changes to water tables, and integration with utilities and existing infrastructure.
- Identify social and amenity implications, including effects on recreation, public safety, and community perceptions in the direct area.
- Assess heritage impacts, including effects on archaeological and architectural assets.
- Undertake a cost appraisal for each option, prepared in accordance with the Capital Works Management Framework (CWMF) and TII's Requirements for Measuring and Pricing (RMP), including allowances for risks, contingencies, and optimism bias.
- Highlight risks, uncertainties, and dependencies, supported by an updated risk register.

5.1.7 Multi-Criteria Analysis

The Consultant shall carry out a Multi-Criteria Analysis (MCA) assessment of the options. The MCA shall enable an understanding of the relative performance of each option and lead to the identification of a preferred option for mitigation of the barriers.

The MCA shall:

- Be structured around the project objectives, including restoration of fish passage, reinstatement of sediment and hydromorphological processes, ecological enhancement, public safety, heritage protection, and value for money.
- Include a balanced set of criteria covering:
 - Technical feasibility and constructability
 - Environmental and ecological outcomes
 - Compliance with legislation and policy (WFD, Habitats Directive, Eel Regulation)
 - Social and amenity benefits, including recreational and community value
 - Cultural heritage impacts
 - Flood risk and hydrological resilience

- Cost, value, and risk considerations
- Apply weightings to reflect the relative importance of criteria, to be agreed with the Client.
- Assign scores to each option based on the outcomes of surveys, assessments, consultation, and professional judgement.
- Provide a clear audit trail showing how scores and weightings were derived.
- Identify options with unacceptable environmental or technical impacts, which shall be screened out at this stage.

The MCA shall be documented in an Options Assessment Report. A sample MCA scoring table is provided in Table 8 to guide the format and structure of the analysis. The final MCA scoring matrix will be established in agreement with the Client. The MCA results shall be used to recommend a preferred option.

On completion of the Multi-Criteria Analysis, the Consultant shall identify and recommend a preferred option for the project. The Consultant shall present the preferred option(s) in an Options Selection Report, including supporting drawings, indicative costs, and an updated risk register. This report shall form the basis for progression to Phase 2 Preliminary Design.

An example of the objectives and descriptor are listed in Table 7. An option that fully achieves its objective should be awarded a score of 5. An option that fails to achieve its objective should be awarded a score of 0. Other options that have a positive impact should be awarded a score proportional to the degree to which they achieve the objective. An option that creates a disbenefit should be awarded a negative score up to a value of -5. If the option has an unacceptable impact, for example it leads to frequent flooding of properties or to a deterioration of protected habitats, it should receive a score of -999. Scores should be based upon the outcome of the assessments carried out, cost estimates, public consultation, and professional judgement.

MCA Objective	Descriptor
Improves passage of all relevant fish species	Improves passage of salmon, trout, sea lamprey, river lamprey and eel at long term mean flow.
Option is operationally robust with minimal maintenance required.	Will withstand flood and drought conditions. Requires minimal intervention to ensure correct operation and will require limited maintenance over predicted lifespan.
Allows longitudinal connectivity and improved hydromorphology of the watercourse locally, includes sediment transfer and temperature change to comply with Water Framework Directive	Allows all river processes to operate naturally to include the movement of riverbed material, sediment and non-fish biodiversity between above and below the proposed structure.
Flood risk post works is not increased.	A change to the risk of flooding upstream or downstream of the proposed structure.
Impact on Material Assets	The proposed scheme impacts on the material assets in the vicinity.

MCA Objective	Descriptor
Option has minimal impact on or enhances potential for community infrastructure / amenity.	The proposed option enhances the amenity of the weir to the public.
Option positively effects species and habitats protected by the Habitats Directive. Options should consider both temporary (construction impacts) and long-term effects.	No predicted decline in habitat or species range or conditions for the protected species over the option lifespan.
Protects or where possible enhances visual amenity, landscape zones and views into /from designated scenic areas.	Protected views as delineated in the Local Area Plan remain unchanged due to the chosen option.
Option avoids damage to or loss of features of architectural heritage or their settings	Architectural heritage remains unchanged.
Option avoids damage to or loss of features of archaeological value or their settings	The built archaeological heritage as detailed in the report is unimpacted by the predicted works.
Option avoids damage to or loss of features of architectural heritage or their settings	Architectural heritage remains unchanged.
Option avoids damage to or loss of features of archaeological value or their settings	The built archaeological heritage as detailed in the report is unimpacted by the predicted works.
Climate Change Adaptation	The option's carbon footprint and its resilience and adaptability to future flood risk and drought arising from climate change.

Table 7 Sample MCA objectives and descriptor

The MCA scores should be used to guide the selection of the preferred barrier mitigation option and will depend on the Consultant's professional judgement and input from the Client. See Table 8 for an example of the MCA's objective weightings.

No.	Criterion	Weighting	Score	Wtd score	Comment
1	Option improves passage of all relevant fish species during summer flow conditions (30 percentile flow)	1			
2	Option is operationally robust with minimal maintenance required.	1			
3	Option allows longitudinal connectivity and improved hydromorphology of the watercourse locally, includes sediment transfer and temperature change to comply with Water Framework Directive	2			
4	Flood risk post works is not increased. (Floods Directive)	2			
5	Impact on Material Assets	1			
6	Option has minimal impact on or enhances potential for community infrastructure / amenity.	1			

No.	Criterion	Weighting	Score	Wtd score	Comment
7	Option positively effects species and habitats protected by the Habitats Directive.	2			
8	Option protects or where possible enhances visual amenity, landscape zones and views into /from designated scenic areas.	1			
9	Option avoids damage to or loss of features of architectural heritage value or their settings	1			
10	Option avoids damage to or loss of features of archaeological value or their settings	1			
11	Climate Change Adaptation	2			
TOTAL					

Table 8 Example of MCA objective weighting and scoring

The comparative assessment shall comprehensively assess the key relevant criteria in accordance with best industry practice and professional judgement. Arising from this assessment, the Consultant shall identify a preferred option.

5.1.8 Options Selection Report

The Consultant shall prepare an Options Selection Report setting out:

- The Project baseline
- The full option development and assessment process.
- The outcomes of the Multi-Criteria Analysis (with scoring tables and weightings).
- A summary of consultation feedback and how it was addressed.
- Justification for the recommended Preferred Option(s).
- Outline drawings, indicative construction methodologies, and preliminary cost estimates.
- An updated programme and risk register.

The Preferred Option shall be reviewed and agreed with the Client through a formal meeting with the Head of Barrier Mitigation or the Steering Group prior to progression to Phase 2 Preliminary Design. During the meeting, the Consultant will present the options considered and the rationale for the emerging preferred option. Queries raised by the reviewers will be formally addressed by the Consultant within agreed timeframes, with responses incorporated into the final Options Selection Report.

The outcomes of the Options Selection Process will provide the evidence base for the Preliminary Business Case, ensuring that the recommended Preferred Option is fully justified in terms of strategic fit, technical feasibility, environmental sustainability, and value for money.

5.2 Phase 2 Preliminary Design

The Consultant shall undertake the preliminary design necessary to deliver a safe, practical and cost-effective barrier mitigation solution. The design shall comply with relevant Eurocodes and best practice for in river works.

The scope of services required by the Client consists of all services necessary or desirable for the purposeful delivery of the scheme, including but not limited to:

- Provide Project Management services including attending Project Meetings, providing Progress Reports and perform Safety & Health Duties
- Gap analysis of existing documentation including structural, geotechnical, hydrological and environmental surveys to identify any additional surveys that may be required to apply for planning exemptions.
- Provide preliminary civil, structural, hydraulic and any other necessary drawings, design notes and method statements for inclusion in the preliminary design report.
- Undertake a constructability assessment for the proposed mitigations solutions to confirm the projects can be delivered safely, efficiently and with minimal environmental impact. The assessment should consider required access, site logistics and the need for any temporary works.
- Preparation of an outline cost plan in accordance with the CWMF for the preferred barrier mitigation option for each site location.
- Scope and prepare tender and contract documents to procure any additional surveys identified. Manage any Consultant and/or contractor appointed.
- Develop the Preliminary Construction Environmental Management Plan (CEMP).
- Develop an appropriate hydraulic model (1D/2D) to apply for a Section 47/50 license and evaluate the effects of the proposed barrier mitigation measure on river hydraulics and flood risk for each site location.
- Scope, procure and manage an intrusive ground investigation to characterise subsurface and sediment conditions where required. The client will pay the appointed contractor directly (as detailed in section 4.11 Procurement).
- Identify, assess and manage all utility services that may be affected by the barrier mitigation project and liaise with relevant utility providers.
- Identify all land and structure ownership and directly engage with them to secure in-principle access agreements.
- Undertake all necessary environmental surveys.
- Undertake and complete Ecological Surveys and reports Article 6(2) or Appropriate Assessment (AA), Ecological Impact Assessment (EclA)/ Environmental Report, Screening for Environmental Impact Assessment (EIA) and Water Framework Directive Assessment (WFD) for each site location.

5.2.1 Article 6(2) report

Where the planning exemption route is chosen for one or all site locations, a report/reports shall be prepared to comply with Article 6(2) of the Habitats Directive 92/43/EEC to support the objectives of the exemption. The report(s) will demonstrate that the

proposed barrier mitigation works avoids any disturbance or deterioration of habitats and species within the Natura 2000 site. The report(s) should present a baseline assessment of the species and habitats that are qualifying interests of the SAC. The report(s) should include potential mitigation measures that have taken appropriate steps to avoid significant deterioration of habitats or disturbance of species in the SAC. The Article 6(2) report(s) should provide assurance beyond scientific doubt about the nature and significance of potential impacts arising from the proposed barrier mitigation works. The report(s) should contain the following information:

- Summary of habitats and species of the Natura2000 site including
 - The current state of the habitat type and species present on the site
 - Pressures and threats to habitats and species on the site
 - Relevant Conservation Objectives
 - Identify any other European Sites that may be impacted using the source-pathway-receptor model.
- Description of the proposed barrier mitigation measures, linking the measures to conservation objectives of QI migratory fish species to determine that the project is “directly connected with or necessary to the management of the site”
- Assessment of the impact of the barrier mitigation measures on Conservation Objectives of the site, Integrity of the site, Integrity of the Natura2000 network, and potential Cumulative effects
- Details on any relevant consultation with NPWS
- List any mitigation measures necessary to mitigate impacts on other QI receptors

5.3 Phase 3 Statutory Process

An assessment of the statutory approval process shall be undertaken by the Consultant to determine if each project qualifies as an exempt development under Section 5 of the Planning and Development Act. If any project is deemed to be an exempted development, a formal section 5 application shall be made to the planning authority. Where any project is deemed not to be an exempt development a full planning application shall be prepared and submitted following IFI approval, in accordance with the Project Management guidelines.

The Consultant shall undertake all services necessary to obtain planning from the relevant Local Authority for each project:

- Prepare all planning documentation including application forms, maps, drawings and supporting technical and environmental reports as required to seek an exemption from planning.

- Where Planning exemption is not granted following approval by the Client, prepare all full planning documentation including application forms, maps, drawings and supporting technical and environmental reports as required to seek full planning.
- Attend meetings and workshops with local authorities and statutory consultees (may include but not limited to NPWS, OPW, EPA, DHLGH) and respond to clarifications and further information requests as required.
- Review and report on the outcome of the exemption from statutory approval process and any conditions attached.

6 Civil and Structural Design

6.1 Design General

The Consultant shall undertake the preliminary design of each project to inform the planning process. The Preliminary Design Phase will refine the preferred solutions for each. Building on feasibility assessments and scoping studies, this phase will translate project objectives into design solution necessary to deliver safe, practical, and cost-effective solutions for the removal, modification, or adaptation of the barriers identified. The design shall include condition assessments of the barriers and associated structures, develop a design to include for any demolition, modification or new structure. The design shall include methodologies as necessary, and consideration of sequencing, temporary works, and site access. Risks such as uncontrolled collapse, scour, or bank destabilisation shall be identified and mitigated, and ancillary works such as bank stabilisation, utility protection, and reinstatement shall be incorporated.

Where applicable the [Design Guidance for Fish Passage on Small Barriers](#), produced by OPW in conjunction with IFI should be followed.

Key tasks will include the development of engineering design options for possible demolition, sediment management, and river channel restoration, supported by hydrological and hydraulic modelling. Environmental surveys and assessments, including the Ecological Impact Assessment (EclA)/ Environmental Report, will be integrated into the design process to ensure that environmental constraints and opportunities are fully considered.

The design will also incorporate constructability, health and safety (including asbestos management), and risk management measures. The design shall consider opportunities for reuse of suitable waste material arising from the design in line with circular economy principles, and public safety improvements through removal of redundant hazards. All designs shall align with hydraulic, sediment, ecological, and heritage requirements and comply with relevant Eurocodes, Building codes, relevant standards and codes of practice for in-river works.

The outputs of the Preliminary Design Phase will include preliminary design report, drawings, preliminary construction methodology, updated cost estimates (based on TII's Requirements for Measuring and Pricing), and mitigation measures. These will provide the basis for statutory approvals, subject to confirmation of the appropriate statutory process.

6.2 Design Checking

It shall be the Consultants responsibility to ensure that all permanent and temporary design works undergo an independent check by another engineer who may be from the Design/Assessment Team.

The proposed independent checker(s) shall meet the requirements of the Structural Team Lead. The checker(s) shall be required to sign a certificate to record that they have undertaken an independent check of the design elements. This certificate shall be submitted to the client with the Design Issue as identified below.

6.3 Documents and Drawings

6.3.1 Format

The Consultant shall be required to submit documents and drawings to the Client in digital format and if requested all documents will also be provided in a hard copy format.

- All drawings in both PDF and CAD format.
- All documents shall be submitted to the Employer digitally in a Microsoft Office programme (Word, Excel, Project etc.) and in PDF format.
- All documentation shall be in English and Irish where requested.
- S.I. units shall be used in all cases.
- All models/drawings shall be set to Irish Transverse Mercator (ITM) coordinates and Ordnance Datum, Malin

6.3.2 Mapping Information

The Client shall where available, provide to the Consultant, the Tailte Éireann (TÉ) data for the project at the scales and formats for which the Employer holds a licence. The Consultant may avail of the sub-Consultant licence for the dataset for use only on this Project. The Client does not accept any responsibility for errors and omissions in any information or map data provided to the Consultant. The Consultant shall complete a third-party license agreement for the use of TÉ digital mapping under IFI's license from Tailte Éireann (TÉ).

6.4 Utilities

The Consultant shall in co-ordination with the PSDP identify all potential services, within and on the approaches to each site. The Consultant shall also include for undertaking site services search. The Consultant shall liaise and determine temporary or permanent relocation of services if deemed necessary for completion of the permanent works.

7 Hydrology and Sediments

7.1 Hydrology

The Consultant shall prepare a Hydrological Assessment for the barrier mitigation projects to ensure that all hydrological impacts of the proposed barrier mitigation measure(s) are fully understood. The assessment shall establish baseline hydrology using OPW Flood Studies Update (FSU) methodologies, supplemented by gauged flow records, rainfall–runoff analysis, and any available data from the OPW, the client shall assist in sourcing any available data. Design flows and climate change allowances shall be determined in accordance with OPW and national guidance.

7.2 Flood Risk Assessment

A Flood Risk Assessment shall be undertaken in line with *The Planning System and Flood Risk Management Guidelines* (2009) to demonstrate compliance with policy and confirm that works shall not exacerbate flood risk. The study shall assess changes in upstream and downstream water levels, floodplain interaction, and local infrastructure impacts, while also identifying potential benefits such as improved conveyance or floodplain reconnection. The Consultant shall complete a Flood Risk Assessment Report.

7.3 OPW Section 47/50 Approvals

In accordance with the Arterial Drainage Act 1945, consent is required from OPW under Section 47/50 for the erection or alteration of a weir/bridge. The design and construction of these structures should be such that flood risks up- and / or down-stream are not increased, or, where no other viable options exist, are restricted to acceptable levels, and should comply with any flood risk management objectives and plans established for the area.

The Consultant shall undertake all necessary assessments, prepare and submit [applications for Section 47/50](#) approvals to OPW. The Consultant shall include for all necessary consultation with OPW in relation to these approvals. Consultants shall refer to OPW document: [Construction, Replacement or Alteration of Bridges and Culverts – A Guide to Applying for Consent under Section 50 of the Arterial Drainage Act, 1945](#).

7.4 1D Hydraulic Modelling

7.4.1 General Modelling Objectives

The Consultant shall develop a 1D hydraulic baseline model for the specified watercourse, for the purposes of:

- Establishing the existing hydraulic conditions across a range of flows;
- Calibration and validation, of both the hydrological inputs and the hydraulic conditions;
- Identifying flood extents and hazards, such as depths and in-channel flow velocities, for current and potential future scenarios across a range of flows;
- Modelling a suitable channel bed design profile to accommodate fish in low flow scenario;

- For possible future adaptation as a flood forecasting model given climate change predictions.
- For completion of OPW Section 47/50 application

The Consultant shall develop dynamic hydraulic / hydrodynamic model for each watercourse as required for the purposes specified herein. The hydraulic model shall take account of the potential for long duration or multiple flood events and low flows.

The Consultant shall extend the models sufficient distances upstream and downstream, to eliminate the potential impact of any instabilities or other effects, such as downstream boundary effects or upstream overland flow path routes, from within the area of the scheme. Hydraulic modelling software packages other than those listed shall not be used in undertaking this element of the Project, unless agreed in advance by the Client. It shall be the Consultant's responsibility to demonstrate that any alternative modelling software package proposed is of an equivalent standard to those listed above.

7.4.2 Software

The hydraulic models shall be developed using one of the following preferred modelling software packages:

- HEC-RAS
- Flood Modeller Pro, TUFLOW
- Mike 11, Mike Flood
- AutoDesk ICM
- TELEMAT-MASCARET

7.4.3 Model Runs

The Consultant shall run the fluvial models to determine flood levels, low flows, extents, flows and other parameters as necessary for IFI to evaluate the mitigation options.

The Consultant shall run the models for design events of the full range of probabilities for the current scenario, the MRFS (10%, 1% AEPs) and HEFS (0.1% AEP) for fluvial models or as otherwise specified.

Furthermore, the consultant shall provide results for water level and water velocity for Q1, Q5, Q30, Q50 and Q95. Consultants shall also include for the effects of climate change and provide results accordingly.

7.4.4 Hydraulic Model Boundary Conditions

The Consultant shall develop boundary conditions in the hydraulic models based on appropriate flow and/or water level values.

7.4.5 Hydraulic Model Parameters

The Consultant shall determine and input to the model appropriate values for all hydraulic model parameters, including roughness, loss parameters and structure coefficients, based on:

- Survey data;
- Expert modeller judgement;
- All other relevant data and information.

7.5 Geomorphology & Sediment Studies

The accumulation of sediments upstream of barriers is a key constraint in barrier mitigation projects, impounded reaches behind barriers may have significant volumes of trapped fine and coarse material, altering natural channel morphology, reducing habitat quality, and creating management challenges for weir removal or modification. An understanding of the quantity, quality, and behaviour of these sediments shall therefore be critical to the safe and sustainable delivery of the project.

7.5.1 Geomorphology Study

The Consultant shall undertake a Geomorphology Study of the project area to understand the physical processes influencing sediment transport, channel form, and habitat development associated with the river channel upstream and downstream of the barrier. The study shall establish baseline geomorphological conditions and assess how removal or modification of the barrier could potentially affect channel morphology, sediment continuity, and overall river functioning. It shall characterise existing channel conditions (planform, gradient, cross-sections, bank profiles, and floodplain connectivity).

The study shall evaluate the influence of barrier(s) on sediment supply and downstream channel adjustment, identifying evidence such as bed degradation, bank erosion, or habitat simplification, and shall analyse long-term changes using field data, survey outputs, and historic mapping or imagery. It shall assess potential risks and opportunities arising from barrier mitigation, such as sediment mobilisation, or localised bank instability and provide particle size distribution to support hydraulic and sediment modelling.

Deliverables shall include a Geomorphology Report with mapping, cross-sections, longitudinal profile, particle size distribution and photographic records for integration into the Preliminary Design Report.

7.5.2 Sediment Sampling and Analysis

The Consultant shall scope, procure, and manage a programme of Sediment Sampling and Laboratory Analysis to characterise the physical and chemical properties of sediment wedges impounded by the barrier(s) (potentially combined with the Ground Investigation if practicable). Results of the sediment analysis (particle size distribution) shall be used as a modelling input for sediment models used to establish the risk of sediment redistribution associated with barrier mitigation. Results of the chemical analysis shall be used to develop appropriate management, reuse, or disposal strategies and to ensure compliance with environmental and waste legislation. The Client shall pay directly for field sampling and laboratory testing, while all scoping, procurement, supervision, interpretation, and reporting costs shall be included within the Consultant's fee.

The investigation shall quantify the volume, composition, and distribution of sediments impounded upstream of the barrier, distinguishing between fine and coarse fractions. It

should confirm sediment depth, extent, and stratigraphy using boreholes, cores, or test pits as appropriate; undertake particle size distribution (PSD) testing (including d15, d50, d85, and d100 gradations) to inform sediment transport modelling and restoration design; and analyse for hydrocarbons, heavy metals, nutrients, and other contaminants in line with EPA guidance. Screening for hazardous materials, including asbestos fibres, shall also be undertaken given potential legacy contamination. Results shall be compared with EU Waste Acceptance Criteria, EPA sediment quality guidelines, and local authority thresholds to determine sediment suitability for reuse in river restoration, fish-pass construction, or landscaping, or the need for licensed off-site disposal. Recommendations for additional or confirmatory sampling and pre-construction monitoring shall also be provided as required.

IFI have access to a 15 lb AMS bottom dredge sampler, the Consultant if they wish and is available for use may use this for sediment sampling. The Consultant shall give at least 4 weeks notice to IFI if this sampler is required for use.

8 Ecological Surveys

The purpose of these surveys is to establish baseline conditions, and ensure that the potential for impacts on animals, flora and fauna, especially protected species are fully considered. The Consultant shall undertake the ecological surveys as detailed below, as a minimum, to help understand the impact of the proposed barrier mitigation on the species.

All surveys shall be undertaken by a suitably qualified ecologist/specialist in accordance with best practice guidelines and statutory requirements for the particular survey being undertaken. The Consultant shall be responsible for obtaining of any licenses required to undertake such surveys.

The Consultant shall undertake as a minimum, an ecological site surveys of the following in the proposed works area to inform the Ecological Impact Assessment (EclA):

- Fossitt Habitat Survey
- Invasive and Non-Native Flora Survey (INNS)
- Mammal Survey
- Bat Roost Assessment
- Nesting and Breeding Bird Survey
- Wintering Bird Survey
- Arborist & Tree Survey
- Amphibians Survey
- Fish Spawning and Nursery Habitat
- Terrestrial Invertebrates

The Consultant shall be responsible for determining the extent of the survey area potentially affected by the proposed barrier mitigation measures selected from Phase 1 and ensure the survey area for each survey is appropriate for assessing potential impacts. The survey areas shall as a minimum, include for 200m of the river channel upstream and downstream of the barrier, as well as the riverbanks, riparian zone and floodplain, as well as the proposed construction access routes.

The Consultant shall for all site ecological surveys, map their spatial extent (using GPS or other mapping tools) within and/or adjacent to the project site and submit GIS data to the client.

8.1 Fossitt Habitat Survey

The Consultant shall undertake a Fossitt Habitat Survey in accordance with the Heritage Council's *Guide to Habitats in Ireland* (Fossitt, 2000). The survey will provide a standardised classification and mapping of habitats within the project area, using the recognised Level 1–3 categories to identify and describe terrestrial, freshwater, and riparian habitats.

8.2 Invasive and Non-Native Flora Survey^[OBJ] (INNS)

The Consultant shall survey invasive and non-native flora and identify any invasive species listed under relevant legislation (e.g., the Third Schedule of S.I. No. 477/2011 in Ireland, or species of Union concern under Regulation (EU) No. 1143/2014) that occur within or near the project site.

8.3 Mammal Survey

The Consultant shall carry out a survey for signs of mammals (badger, otter, stoat, pine martin, etc.) within the proposed works area that may use the site for breeding, feeding, foraging, commuting, etc. along the section of the river likely to be affected by the proposed works. With otter (*Lutra lutra*) being a species of primary concern due to being listed under Annex IV of the Habitats Directive 92/43/EE, otter activity survey shall include, but not be limited to, the identification of holts, couches, spraints, latrines, slides and prints, together with any other evidence of otter activity within the study area.

Where otters are recorded, the Consultant shall ensure compliance with relevant licensing requirements and recommend appropriate mitigation or enhancement measures, such as exclusion zones, timing restrictions, or riparian habitat restoration.

8.4 Bat Roost Assessment

The Consultant shall undertake a Bat Survey to identify any potential or confirmed roosting sites within trees, structures, or other features in the vicinity of the structure and its associated works area, including possible construction access routes. Seasonally timed surveys shall employ dusk/dawn transects, static detectors, and roost inspections where appropriate.

The Consultant shall recommend mitigation or enhancement measures such as timing restrictions, sensitive lighting design, and roost protection or creation, and shall obtain all required derogation licences before undertaking any works that may affect roosts.

8.5 Nesting and Breeding Bird Survey

The purpose of the survey is to establish baseline conditions, and ensure that the potential for impacts on nesting or breeding birds and in particular any protected bird species are fully considered. The Consultant shall carry out a site survey during the breeding season, typically March–July with at least two visits in line with BTO and CIEEM guidance to identify physical signs that indicate the presence or potential presence of nesting or breeding birds in riverbanks within the vicinity of the proposed works. This may include banks and associated nest holes/burrows used by birds nesting in the riparian zone of key species, particularly Annex I and Red/Amber-listed such as Kingfisher and Sandmartin. The survey should focus on detecting features such as burrow entrances, excavation spoil, feathers, droppings, nest material, or other field signs associated with species that utilise soft or vertical banks for breeding.

The Consultant shall assess the potential sensitivity of breeding birds to project works, identify any required seasonal restrictions or mitigation measures, and recommend opportunities for habitat enhancement.

8.6 Wintering Bird Survey^{[08][08]} (if deemed required)

The Consultant shall undertake a Wintering Bird Survey to determine the presence and distribution of wintering bird species during the winter period. Surveys shall be carried out during the main wintering period (October–March), with multiple visits to capture early, mid, and late winter usage. The survey shall record species composition, numbers, and behaviour, paying particular attention to Annex I and Red/Amber-listed species known or likely to occur within or in close proximity to the survey site. The assessment shall assess potential project impacts such as disturbance, habitat loss, or changes in prey availability, and recommend mitigation or enhancement measures, including seasonal restrictions or buffer zones where appropriate.

8.7 Arborist & Tree Survey

The Consultant shall commission and manage an Arborist and Tree Survey to identify, map, and assess all trees potentially affected by the project, including but not limited to impounded reaches, riparian corridors, and all proposed access, compound, and construction areas. The survey shall record species, dimensions, age class, and condition, identify trees of ecological, landscape, or heritage importance, and assess potential impacts from construction or restoration works. Trees shall be categorised in accordance with *BS 5837:2012 – Trees in relation to design, demolition and construction*, with root protection areas and canopy constraints clearly defined.

The Consultant shall make recommendations for protection, management, and replanting with native species where necessary. Where tree removal is unavoidable, the Consultant shall ensure compliance with the Forestry Act 2014 and the Wildlife Acts 1976–2023, including adherence to seasonal restrictions for nesting birds.

8.8 Amphibians Survey

The Consultant shall undertake an Amphibian Survey to determine the presence, distribution, and breeding activity of amphibian species within the project area(s) and associated riparian or wetland habitats. The assessment shall identify breeding and foraging sites, record population activity and life stages during appropriate seasonal periods (spring–summer) and evaluate potential impacts from potential sediment mobilisation, or bank regrading. The Consultant shall recommend suitable avoidance, mitigation, and enhancement measures including timing restrictions, protection of breeding sites, creation of refuges, and reinstatement of wetland features.

8.9 Fish Spawning and Nursery Habitat

The Consultant shall undertake surveys of fish spawning and nursery habitat along the sections of the watercourse likely to be affected by the proposed mitigations, noting that spawning often occurs immediately downstream of barriers as fish often cannot continue further to upstream habitats. All surveys shall be undertaken at appropriate times of year (e.g. salmonid spawning habitat surveys in late autumn/winter, nursery habitat surveys in spring/summer), and in accordance with Inland Fisheries Ireland (IFI) protocols and relevant CEN/ISO standards.

8.10 White Clawed Crayfish Survey

The Consultant shall undertake a White-clawed Crayfish (*Austropotamobius pallipes*) survey to determine the presence, distribution, and status of this Annex II species. Surveys shall record habitat quality, substrate type, flow regime, and refuge availability.

The assessment shall evaluate potential impacts of potential sediment mobilisation or construction disturbance, and recommend suitable mitigation and biosecurity measure, including timing of works, dewatering procedures, and crayfish-plague prevention protocols.

8.11 Terrestrial Invertebrates

The Consultant shall undertake a terrestrial macroinvertebrate survey to survey for the presence of Annex IV species. The survey shall be sufficient to recommend mitigation measures that may be required to protect the species during construction works. All surveys shall be undertaken by a suitably qualified Ecologist and shall be conducted under a Regulation 54 Derogation license for Annex IV species and in accordance with NPWS guidelines where relevant.

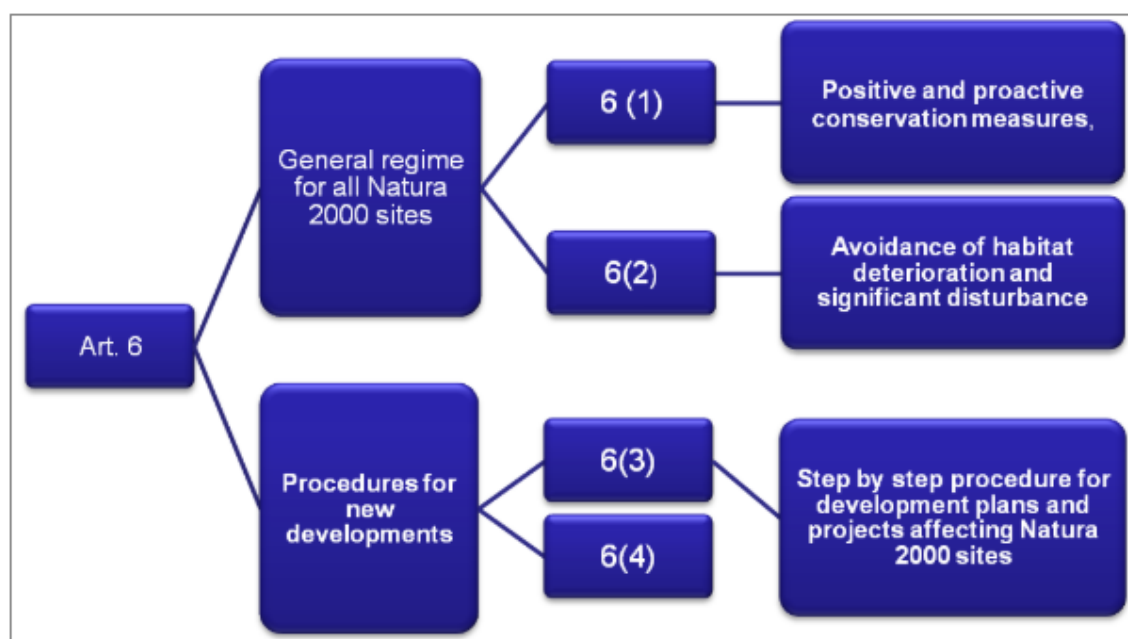
9 Environmental Reports & Data

9.1 Habitats Directive

The Consultant shall engage in early discussions with the NBMP Environmental Specialist, and where necessary, the National Parks and Wildlife Service (NPWS) to establish whether this project can be considered "directly connected with or necessary for the management" of the relevant SAC. If so, the assessment shall fall within the requirements of Article 6(1) and 6(2). Article 6(2) of the Habitats Directive 92/43/EEC, which states:

"Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive."

If the project is not considered "directly connected with or necessary for the management" of the site, the Appropriate Assessment (AA) Screening process shall be followed, and if required, a Natura Impact Statement (NIS) shall be prepared as detailed below in Section 9.3 Appropriate Assessment (AA) Article 6(3).



Article 6 of the Habitats Directive

Source: Source: Joseph van der Stegen, DG Environment, European Commission

Figure 3 Article 6 of the Habitats Directive

9.2 Article 6(2) Report

A report shall be prepared to comply with Article 6(2) of the Habitats Directive 92/43/EEC, to ensure that the proposed barrier mitigation works avoids any disturbance or deterioration of habitats and species within the Natura 2000 site. The report should present a baseline assessment of the species and habitats that are qualifying interests of the SAC. The report should include potential mitigation measures that have taken appropriate steps to avoid significant deterioration of habitats or disturbance of species in the SAC. The Article 6(2)

report should provide assurance beyond scientific doubt about the nature and significance of potential impacts arising from the proposed barrier mitigation works. The report should contain the following information:

- Summary of habitats and species of the Natura2000 site including:
- The current state of the habitat type and species present on the site.
- Pressures and threats to habitats and species on the site.
- Relevant Conservation Objectives.
- Identify any other European Sites that may be impacted using the source-pathway-receptor model.
- Description of the proposed barrier mitigation measures, linking the measures to conservation objectives of QI migratory fish species to determine that the project is “directly connected with or necessary to the management of the site”
- Assessment of the impact of the barrier mitigation measures on Conservation Objectives of the site, Integrity of the site, Integrity of the Natura2000 network, and potential Cumulative effects.
- Details on any relevant consultation with NPWS.
- List any mitigation measures necessary to mitigate impacts on other QI receptors.

9.3 Appropriate Assessment (AA) Article 6(3)

An Appropriate Assessment shall be prepared for the projects under this commission following the guidelines set out in Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities (DEHLGH, 2009). An AA screening will need to be prepared as part of any geotechnical investigation procurement documentation.

9.3.1 AA Screening Report

AA Screening Reports shall be prepared and shall assess the likely significant impacts on the qualifying interest of a Natura 2000 site via the pathways of air, water, or land, and recommend whether an AA/NIS Report is necessary. The AA Screening should provide assurance beyond scientific doubt about the nature and significance of potential impacts arising from the proposed barrier mitigation works.

If the project is screened out, a determination on the need for AA will be published on IFI’s database for AA Determinations following the recommendation of the AA Screening Report.

9.3.2 Natura Impact Statement (NIS)

If the findings of the Appropriate Assessment (AA) Screenings determine that the proposed works are likely to have a significant effect on a Natura 2000 site (Special Area of Conservation (SAC) or Special Protection Area (SPA)), either alone or in combination with other plans or projects, the Consultant shall prepare a Natura Impact Statement (NIS) in accordance with Article 6(3) of the EU Habitats Directive (92/43/EEC) and relevant national guidance, including the Department of Housing, Local Government and Heritage (2009) “Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.”

9.4 Ecological Impact Assessment (EcIA)^(OBJ)/Environmental Report

An EcIA/Environmental Report shall be prepared for each of the project locations. The EcIA/Environmental Reports shall present a robust baseline assessment of the ecology of the site, evidenced by a desktop assessment and site walkover survey(s).

The EcIA/Environmental Reports shall present a map of the habitats found on site following the Fossitt (2000) classification. It shall identify any potential impacts to habitats with emphasis on impacts to any protected or threatened habitats listed as Annex 1 or Priority Annex 1 of the Habitats Directive.

The EcIA/Environmental Reports shall address potential impacts and recommend mitigation (if required) to any species protected under Annex IV (namely otter, bats) and their breeding/resting places. The EcIA/Environmental Reports shall specify the nature of any derogation licenses or wildlife licenses that may be required in order to undertake the proposed works in compliance with Regulation 54 and Articles 12 and 16 of the Habitats Directive which requires member states to establish a system of strict protection and derogation for the animal species listed in Annex IV.

For invasive species, the EcIA/Environmental Reports shall assess potential risks in terms of spread (through water, soil, equipment, transport etc.), ecological impact (native biodiversity, habitats, water quality), and legal obligations. The EcIA/Environmental Reports shall recommend management, mitigation, or control measures and best practices to prevent introduction or further spread, or to eradicate/control where established, in order to protect native species, habitats, and compliance with legislation. It should inform design and implementation of the proposed works so that invasive species are considered early to avoid unnecessary disturbance or spread.

9.5 Environmental Impact Assessment^(OBJ) (EIA) Screening

The Consultant shall take account of the EU Directive on Environmental Impact Assessment (EIA) transposed into Irish Law. The Consultant shall conduct an EIA screening of all project locations. In the first instance the Consultant shall prepare reports for all projects, for the Client, addressing whether an Environmental Impact Report may be required for all projects on the basis that the schemes do not exceed the EIA threshold. If subsequently requested by the Client, the Consultant shall produce a report of sufficient standard for the Client to forward to An Coimisiún Pleanála seeking a Direction whether a statutory EIA is required for either/all projects.

Where the conclusion is that an EIA is not required, the Consultant shall provide an EIA Screening report for all projects, with a robust justification to withstand legal and regulatory scrutiny. Where an EIA is deemed necessary, the Consultant shall outline the likely scope of the Environmental Impact Assessment Report (EIAR) including details of any necessary additional surveys and associated cost estimates for review by the client. The Client shall determine the course of action and issue any necessary instructions in accordance with the Conditions of Engagement.

9.6 Water Framework Directive (WFD) Screening

A WFD Screening Assessment shall be prepared to determine whether the proposed projects have the potential to cause a deterioration in the waterbody status of any waterbody, in terms of the overall Ecological Status, or at the scale of individual quality elements. The screening should conclude whether a further detailed assessment is required based on potential deterioration, or potential significant impact that may arise as a result of the proposed projects.

9.7 GIS Data

The Consultant shall compile and submit all GIS shapefiles generated or collected during the baseline ecology surveys. All spatial data must be provided in the format, attribution structure, and file organisation specified by the client. Deliverables shall include fully attributed, clean, and georeferenced shapefiles compliant with the client's data standards. Details of GIS Data standards to be used are contained in Appendix A.

10 Cultural Heritage

10.1 General

The Consultant shall undertake a programme of cultural heritage assessments to establish a clear baseline of archaeological and architectural features, evaluate their significance, and assess the potential impacts of proposed barrier mitigation and river restoration works.

10.2 Archaeological Assessment

The Consultant shall undertake an archaeological assessment to ensure that any potential archaeological constraints are identified at an early stage of the projects. The assessment shall be undertaken by a suitably licensed Archaeologist in accordance with the National Monuments Acts 1930–2014, and Principles for the Protection of the Archaeological Heritage (1999), and current guidance from the National Monuments Service.

The assessment shall include:

- A desk-based review of the Record of Monuments and Places (RMP), National Inventory of Architectural Heritage (NIAH), and other relevant archives to establish whether recorded archaeological, architectural or cultural heritage sites are located within or adjacent to the project footprints.
- A site walkover survey to confirm the presence or absence of visible features of archaeological interest in the vicinity of the barrier, impoundment, and associated works areas.
- Preparation of a short Archaeological Assessment Report summarising baseline conditions, identifying any potential risks to archaeological heritage, and setting out recommendations for avoidance, mitigation, or further investigation if required. The report shall include where appropriate photographs and mapping.

The archaeological assessment will be proportionate to the scale of the proposed works and sufficient to inform the planning process. Where necessary, the Consultant shall liaise with the National Monuments Service and County Council's Heritage Officer to ensure statutory requirements are addressed.

10.3 Architectural and Cultural Heritage Assessment

The Consultant shall undertake an Architectural and Cultural Heritage Assessment of the project area to identify, record, and evaluate built heritage features that may be affected by the proposed works. The assessment shall be undertaken by a suitably qualified architectural heritage specialist in accordance with the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999, the Planning and Development Acts 2000–2023, and DHLGH guidance. The assessment shall include:

- A review of relevant datasets including the RPS, NIAH, and local authority development plans.
- A field survey to verify existing data, assess the condition and setting of known assets, and identify additional unrecorded features of merit.
- Evaluate potential impacts of the proposed barrier mitigation works on the character and setting of any heritage structure(s) and recommend mitigation or enhancement measures such as design avoidance, sympathetic repair, recording prior to alteration, or heritage interpretation.
- Preparation of a short Architectural and Cultural Heritage report summarising baseline conditions, identifying any potential risks to architectural and cultural heritage, and setting out recommendations for avoidance, mitigation, or further investigation if required. The report shall include where appropriate photographs and mapping.

11 Preliminary Construction Environmental Management Plan (CEMP)

The Consultant shall prepare a Preliminary Construction Environmental Management Plan (CEMP) to support the planning and design development of the barrier mitigation projects. IFI's Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (2016) shall be incorporated into the design of the works and CEMP where appropriate. The preliminary CEMP shall as a minimum consider the following areas:

- Roles, Responsibilities & Communication
- Environmental Risk Assessment
- Ecology & Biodiversity Protection Measures
- Water Management & Pollution Prevention Measures
- Sediment Management Measures
- Waste & Materials Management Measures
- Air Quality & Dust Control Measures
- Noise & Vibration Management
- Working hours and Seasonal Restrictions
- Traffic & Transport Management
- Monitoring, Inspections & Reporting

12 Waste Management & Circular Economy

The Consultant shall consider as part of the design and for inclusion as part of the preliminary CEMP a waste and circular economy plan for the project, setting out how construction and demolition arisings, retained sediments, and other materials will be managed sustainably in accordance with the Waste Management Acts 1996–2023, the European Communities (Waste Directive) Regulations 2011, and relevant EPA guidance. The Consultant as part of their design prioritise waste prevention, reuse, and recycling in line with Ireland’s Circular Economy Act 2022 and the Waste Action Plan for a Circular Economy (2020–2025), ensuring that project delivery aligns with national sustainability and climate objectives.

The plan shall identify and quantify all waste streams likely to arise from the works, including masonry, concrete, metals, sediments, vegetation, soils, and potential hazardous materials such as asbestos or contaminated sediments. It shall assess opportunities for reuse and recycling, such as incorporating suitable demolition arisings into river restoration or fish-pass construction, or beneficial reuse of uncontaminated sediments in landscaping and floodplain enhancement and set out a materials management hierarchy identifying disposal routes only where reuse or recycling is not feasible. The Consultant shall ensure full compliance with waste permitting and licensing requirements (EPA, local authority, NPWS) and integrate pollution prevention and waste minimisation measures into the Preliminary CEMP.

Appendix A GIS Data Standards

Habitat Shapefiles

Layer geometry: Polygon and/or line layer

Coordinate system: Irish Transverse Mercator EPSG:2157

Layer name: Projectname_Habitats_SurveyDate.shp, e.g.

Lyrelane_Habitats_01062026.shp

Field name	Data Type	Description
Project	Text	Project name
Surveyor	Text	Surveyor initials, e.g. ER
Date	Text	Date of survey, e.g. DD/MM/YYYY
Fossitt	Text	Fossitt code, i.e. GA1, WS1
Habitat	Text	e.g. Improved agricultural grassland, Scrub
Annex	Text	Potential Annex 1 Habitat codes as set out under the EU Habitats Directive (92/43/EEC), or NA, e.g. 3260 floating river vegetation In the case of mosaic habitats, use pipe () separated entries, e.g. '111023 sandbanks 1130 estuaries ...
Comments	Text	Any additional observations or notes
Photo_ref	Text	File name or photograph reference (if applicable)
Org	Text	Survey company initials

Appendix A Table 1 List of attributes for Habitat Survey Shapefiles

Otter Shapefiles

Layer geometry: Point layer

Coordinate system: Irish Transverse Mercator EPSG:2157

Layer name: Projectname_Otter_Survey_SurveyDate.shp, e.g. Lyrelane
_otter_survey_01062026.shp

Field name	Data type	Description
Project	Text	Project name
Surveyor	Text	Surveyor initials, e.g. ER
Date	Text	Date of survey, e.g. DD/MM/YYYY
Feature_type	Text	e.g. slide, latrine, holt, couch, sighted otter, path, etc.
Status	Text	e.g. active, potentially active, not recently active, abandoned
Signs	Text	e.g. paw print, spraint/jelly, etc.
Comments	Text	Any additional observations or notes
Photo_ref	Text	File name or photograph reference (if applicable)
Org	Text	Survey company initials

Appendix A Table 2 List of attributes for Otter Survey Shapefiles

Preliminary Bat Roost Shapefiles

Layer Geometry: Point layer

Coordinate System: Irish Transverse Mercator EPSG:2157

Layer Name: Projectname_PBR_Survey_SurveyDate.shp, e.g. Lyrelane_pbr_survey_01062026.shp

Field name	Data Type	Description
Project	Text	Project name
Surveyor	Text	Surveyor initials, e.g. ER
Date	Text	Date of survey, e.g. DD/MM/YYYY
Structure_type	Text	Structure where PBR is found e.g. tree, bridge, etc.
Feature_type	Text	Roost feature type, i.e. crack under stone bridge, tree tear out
Roost_pot	Text	Roost potential, e.g. negligible, low, moderate, high, confirmed
Roost_type	Text	Roost type, e.g. day, night, maternity, hibernation, unknown
Signs	Text	Signs of habitation, e.g. individuals present, droppings, staining
Comments	Text	Any additional observations or notes
Photo_ref	Text	File name or photograph reference
Org	Text	Survey company initials

Appendix A Table 3 List of attributes for Preliminary Bat Roost Survey Shapefiles

INNS Shapefiles

Layer Geometry: Point layer and/or Polygon layer

Coordinate System: Irish Transverse Mercator EPSG:2157

Layer Name: Projectname_INNS_SurveyDate.shp, e.g. Lyrelane_INNS_01062026.shp

Field name	Data Type	Description
Project	Text	Project name
Surveyor	Text	Surveyor initials, e.g. ER
Date	Text	Date of survey, e.g. DD/MM/YYYY
Species	Text	e.g. Himalayan balsam, Giant hogweed
Comments	Text	Any additional observations or notes
Photo_ref	Text	File name or photograph reference (if applicable)
Org	Text	Survey company initials

Appendix A Table 4 List of attributes for INNS Survey Shapefile