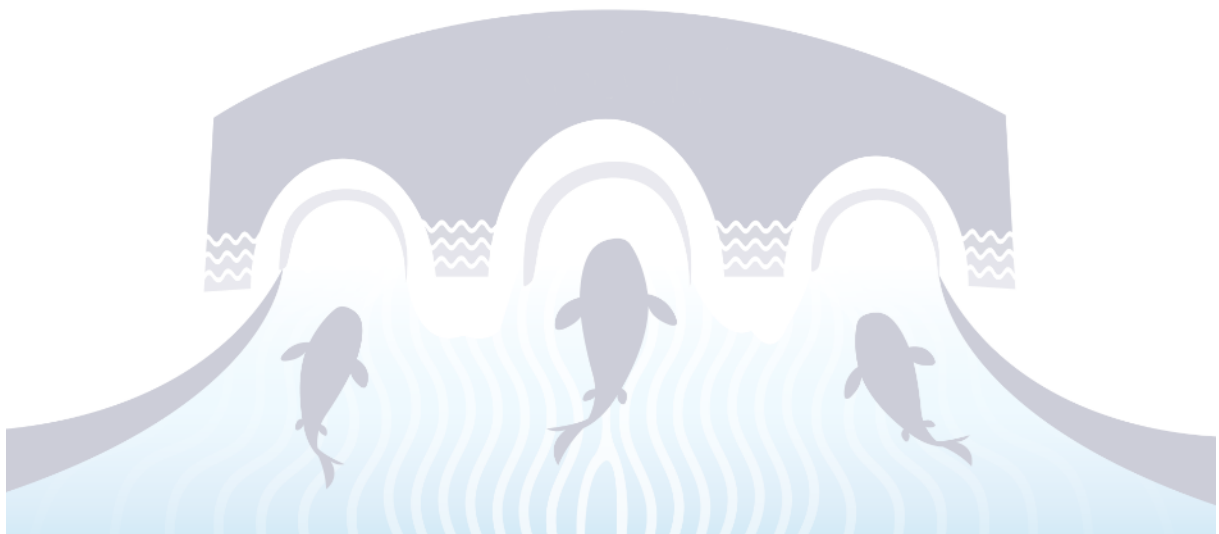




National Barrier Mitigation Programme

Doneraile Weirs Barrier Mitigation Project Doneraile Weirs Barrier Mitigation Project Scope of Integrated Consultancy Services



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1 General Project Details

Inland Fisheries Ireland (the Client) is seeking to appoint an Engineering and Environmental Consultant through an Open Procedure tender, via eTenders, to assist the Client with the delivery of a proposed Barrier Mitigation Project for Doneraile Weirs (detailed in section 1.2), and obtain all statutory consents required, through IFI Project Phases 1 to 3 as detailed in Figure 1 IFI Phases aligned with CWMF key life cycle Stages i-v Figure 1 below.

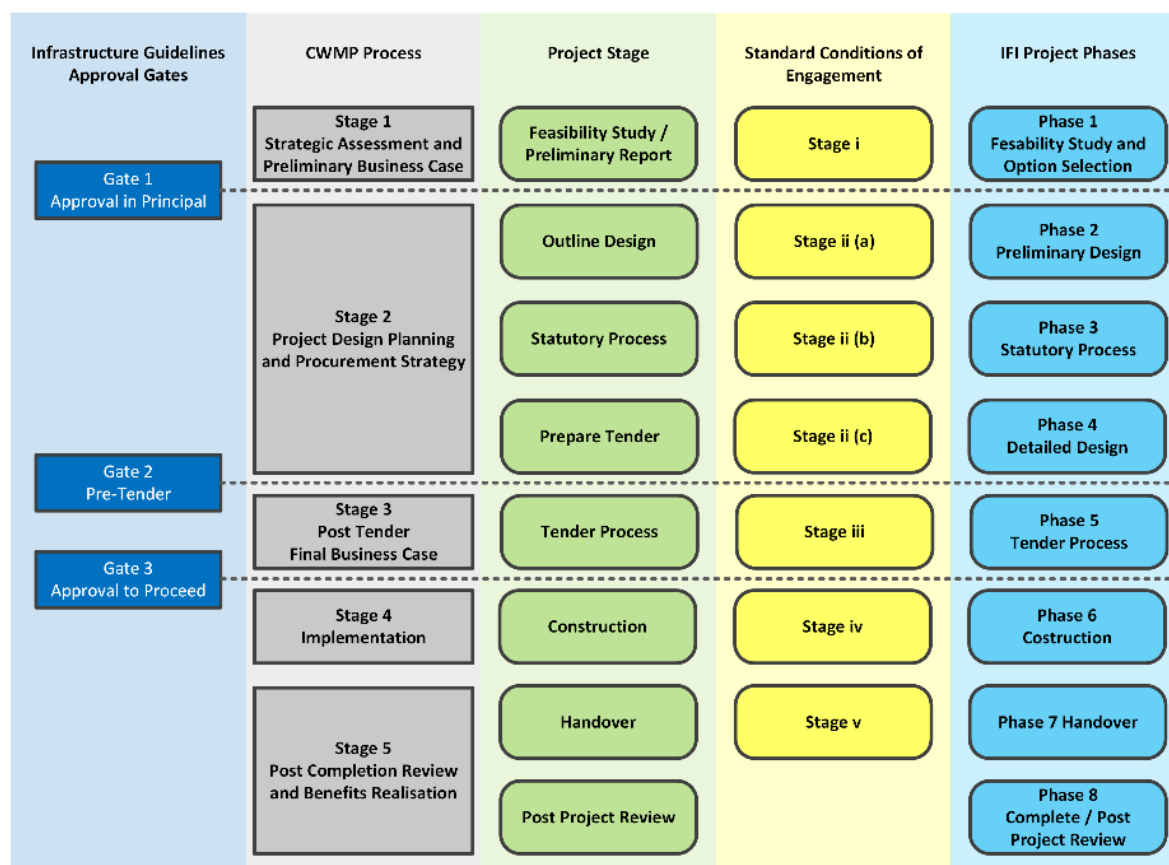


Figure 1 IFI Phases aligned with CWMF key life cycle Stages i-v

As part of this work it is intended that a planning development exemption under Class 35, Part 1, Schedule 2 of the Planning and Development Regulations, 2001 to 2025 is employed. An OPW section 47 application under the Arterial Drainage Act, 1945 will be required for the removal of 2no. weirs

The consultant shall be involved in stakeholders' discussions for the project.

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.

In the recent Nature Restoration Regulation 2024, Article 9 sets targets for the restoration of free flowing rivers across the member states of the European Union at 25,000km by 2030. Barrier removal is key to delivery of this target by reinstating longitudinal river continuity.

A central concept across these legislative frameworks is river continuity, which is especially emphasised under the 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.

This project involves mitigating two weirs in Doneraile on the River Awbeg in County Cork. They have been identified as a significant barrier to fish passage under WFD III SNIFFER Barrier assessments. The weirs are on the Awbeg River that is assessed as having Poor Ecological Status under the River Waterbody WFD Status 2019-2024. Removal of the barriers will contribute towards improvement of this status.

1.2 Project Objectives

The project aims to mitigate the impacts of the identified barrier on fish passage and restore more natural river processes at the Doneraile Weirs. The project objectives are as follows:

1.2.1 Restore Longitudinal Connectivity

- Remove/mitigate identified barriers to restore longitudinal connectivity
- Re-establish or improve upstream access for key migratory species including Atlantic salmon (*Salmo salar*), Sea Lamprey (*Petromyzon marinus*), River lamprey (*Lampetra fluviatilis*), Alosa fallax fallax (Twait Shad) and European eel (*Anguilla anguilla*), as well as improving connectivity for resident fish populations which are known to include Brook lamprey (*Lampetra planeri*), and Brown trout (*Salmo trutta*).

1.2.2 Reinstatement of Sediment and Hydromorphological Processes

- Reduce sediment trapping by the weir and restore natural sediment transport processes, contributing to improved channel function downstream.
- Manage and beneficially reuse accumulated impounded sediments in line with waste minimisation principles.
- 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

- Enhance spawning and nursery habitat for salmonids and other native fish species. It should be noted White-clawed crayfish are present on the Awbeg River.
- Contribute to the delivery of Water Framework Directive (2000/60/EC) objectives by supporting “High Ecological Status” classification.

1.2.4 Address Infrastructure Maintenance and Safety Risks

- Reduce long-term maintenance liabilities.

1.2.5 Enable Circular Economy Outcomes

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

1.2.6 Support Policy and Regulatory Compliance

- Ensure compliance with all relevant environmental and planning legislation, including the EU Biodiversity Strategy 2030, the Habitats Directive (92/43/EEC), Water Framework Directive, EU Eel Regulation (1100/2007), EU Floods Directive (2007/60/EC) and the EU Birds Directive (2009/147/EC).
- Align with national and EU climate, biodiversity, and water management strategies, including the Nature Restoration Law and Ireland’s River Basin Management Plan.
- Ensure this barrier mitigation project does not increase flood risk to downstream areas.

1.2.7 Deliver Value for Money and Public Benefit

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

2 Project Description

This commission includes two Barrier Mitigations as detailed in Table 1 below. For the purposes of this tender this project shall be divided into 1 lot.

Lot Number	Project Code	Project Barrier	County	U28 ID	GPS Co-ordinates
1	0823004	Doneraile Weir 1	Cork	18_1724_25	52°13'05.6"N 8°34'49.3"W
	0823005	Doneraile Weir 2	Cork	18_1724_22	52°13'05.4"N 8°34'54.6"W

Table 1 Barrier Mitigation Project and Lot

2.1 Doneraile Weirs

Doneraile Weirs are low-head hydraulic structure located on the River Awbeg in the governance area of Cork County Council. The weirs are on the Awbeg River as shown in Figure 2.



Figure 2 Location Map of Doneraile Weirs

The Awbeg is a fourth-order River under the EPA's classification system for watercourses, draining approx. 256 km². The Awbeg River rises in the Long Mountains to the North of Cork and flows in a Southerly Easterly direction. The river flows through Buttevant and East through Doneraile, turns South near Shanballymore and through Castletownroche to enter the

Blackwater at Poulcormac near Bridgetown Abbey. The upper reaches are predominantly rural with villages Ballheha and Liscarroll in the upper reach. The catchment is shown in Figure 3.

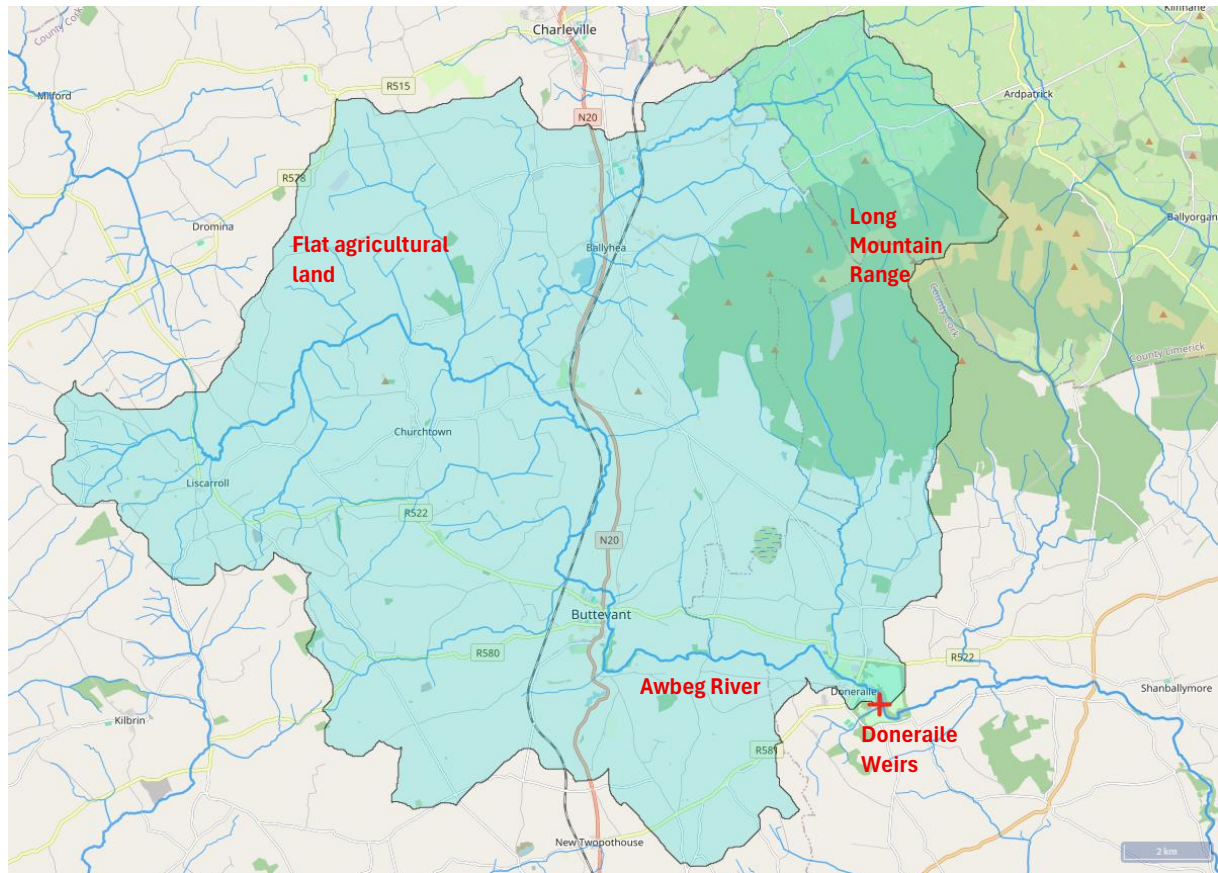


Figure 3 Doneraile catchment map of the Awbeg River

The Awbeg is a breeding ground for otters and supports a significant population of Atlantic Salmon and a population of White-Clawed Crayfish, all of which are protected species.

Doneraile Park is a 160-hectare landscaped parkland and wildlife estate. In 1870, the Doneraile demesne covered approximately 3,200 hectares (8,000 acres) in and around Doneraile, but was gradually reduced in size by the sale of lands. The remaining demesne land, which now comprises Doneraile Wildlife Park, was sold to the government in 1943.

The house, Doneraile Court, was built by the St Leger family around 1645 on the site of a ruined castle. Its associations link to the famous St Leger Stakes in horse racing. Thirteen generations of the St Leger family lived at Doneraile over three centuries. A number of recorded protected structures in Doneraile Park are shown in Figure 4. In 1956, the house and remaining lands were sold to the state's Land Commission. The parklands were designed by Capability Brown and include many water features, a parterre walled garden and gardeners' cottages. There are red deer, fallow deer, sika deer and Kerry cattle that live on the estate.

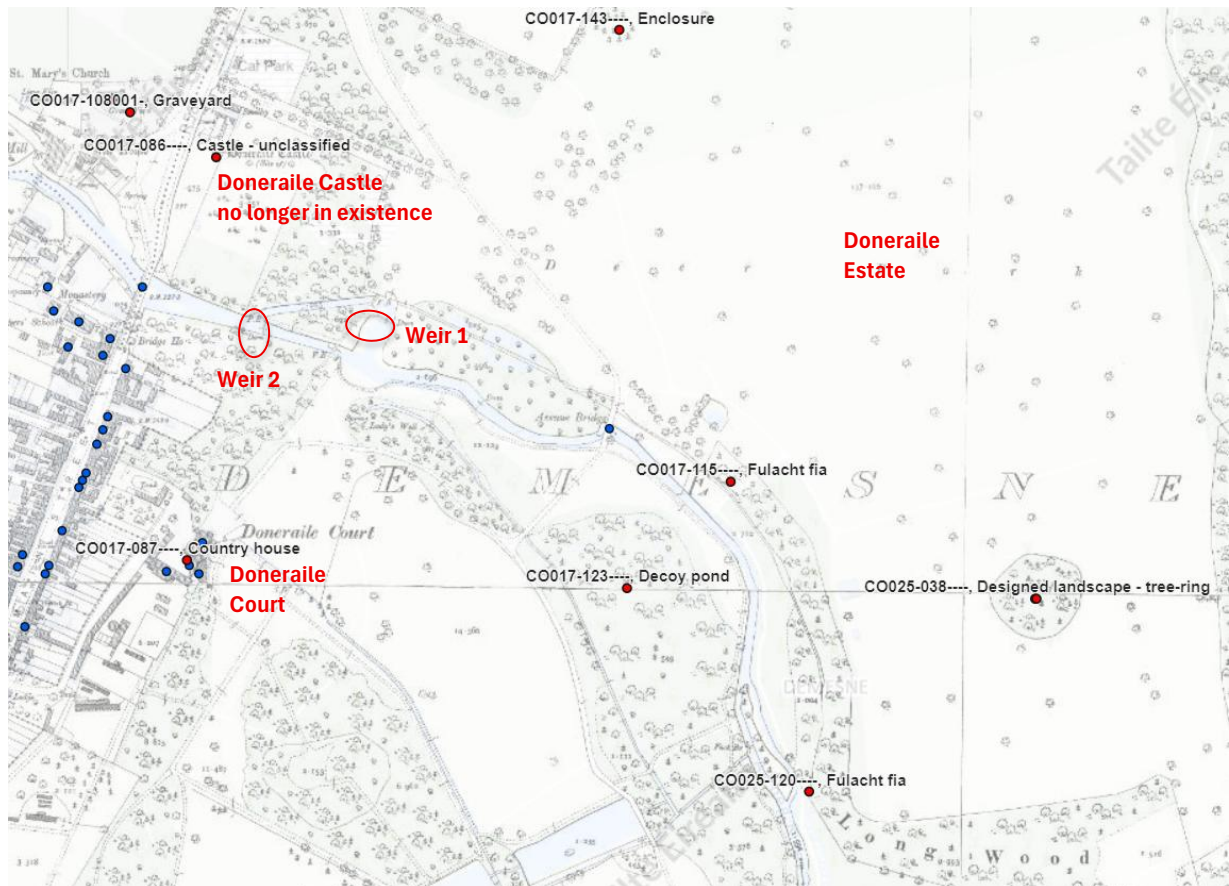


Figure 4 Historic map of Doneraile Park

A WFD 111 SNIFFER barrier assessments has indicated Weir 1 is a high impact issue for adult salmonids and cyprinids due to the depth of water. The slope of the weir and the lip at the foot is an issue for all fish species migration upstream of the barrier.

For Weir 2 the SNIFFER assessment has a hydraulic head issue for adult trout, cyprinids, juvenile eel and juvenile salmon. The central fish pass regularly has debris blocking the structure and high levels of turbulence causing a barrier issue for fish migration.

The weirs are existing barrier that are 11.58 metres wide. Weir 1 is on a secondary channel off the Awbeg River in the Doneraile Estate. Weir 2 is short distance upstream of Weir 1 and is a concrete structure downstream of a road bridge. Both Weirs have an approximate barrier height of 0.64m. Both weirs appear to have only an aesthetic function and their purpose should be established initially as part of this study, to confirm whether they are redundant. They are located in the Blackwater River (Cork/Waterford) SAC (002170).

The weirs are within Doneraile Wildlife Park that is in public ownership of Coillte. The OPW manage the Doneraile Estate on behalf of Coillte.

The structures have resulted in a long-term impoundment of the River. This has facilitated the accumulation of sediment, gravel and silt upstream of the weirs, altered the river's natural sediment regime and reduced downstream sediment conveyance. The project will incorporate restoration of the channel towards its pre-impoundment morphology.

Information on the Awbeg River from the Water Framework Directive Fish Electrofishing survey records is accessible via <https://opendata-ifigeo.hub.arcgis.com/>.

2.2 Barrier Impact

Error! Reference source not found. below is taken from the barrier assessments carried out by IFI on the 24th May 2022. Currently weir 1 has no provision for fish passage. Both weirs represent a barrier to several fish species migrating upstream, disrupting the aquatic ecosystem and reducing biodiversity. This project has the potential to improve river connectivity and restore free passage along the Awbeg River. This would contribute to the EU Biodiversity Strategy 2030 and Nature Restoration Regulation 2024 target of restoring at least 25,000 km of free-flowing rivers. Long term environment and economic benefits are expected through enhanced fish stocks, support to local fisheries and indirect economic benefits to the community through eco-tourism and angling. Improving river connectivity also contributes to climate resilience and supports species adaptation to environmental changes.

Species	Barrier Impact Weir 1	Barrier Impact Weir 2
Adult Salmon	Impassable	High
Salmon Smolt Downstream	High	Impassable
Adult Eel Downstream	None	Low
Eel Elver	High	None
Shad	Impassable	Impassable
Sea Lamprey	High	Impassable
River Lamprey	High	Impassable
Brown Trout	Impassable	High
Pike	Impassable	Impassable
Cyprinids	Impassable	Impassable

Figure 5 Barrier Impact Scores

2.2.1 Emerging Preferred Option

Under expert advice and according to the hierarchy of river barrier mitigation the best practise approach is to remove barriers and restore rivers to their natural state. A planning development exemption for Doneraile Weirs under Article 6(2) of the habitats directive is to be examined by the appointed consultant to advance the project.

3 Project Constraints

There are a number of constraints on the project, 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 Stages and phases used in this brief are those of Inland Fisheries Ireland's National Barrier Mitigation Programme's bespoke Project Management Process. 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 own realistic and achievable programme to meet the timelines as detailed in Table 2 Timeframe for Phase Delivery, and to submit this as part of their tender.

The Consultant shall note that if deemed appropriate, and with the approval of the Client, some phases may run concurrently.

The timeframes shown below in Table 2 align with the Performance Periods in Schedule B to the Form of Tender.

NBMP Phase	Phase Description	Start Date	Length of Phase (months)	Deadline for Completion
1	Feasibility Study & Option Selection	Sept 2026	2	November 2026
2	Preliminary Design	Nov2026	4	March 2027
3	Statutory Process	April 2027	1	May 2027

Table 2 Timeframe for Phase Delivery

3.2 Planning Approvals & Conditions

A preliminary assessment by IFI has concluded that the project may be eligible for a planning exemption under Section 5 of the Planning and Development Act 2001. The consultant will proceed accordingly.

In cooperation with the project partners the consultant will be required to liaise, meet with and cooperate with the relevant planning authorities. In particular, the relevant planning authorities must be consulted in relation to the proposed planning exemptions.

3.3 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. Works may be permitted outside of this window providing all temporary works and any necessary mitigation measures are in place and approvals are received from IFI.

3.4 Construction Works During Changing Weather & Flow Conditions

No construction works shall be undertaken when the river is in flood or close to flood conditions. This condition will be incorporated into the works requirements by the consultant.

It is necessary to include the effects of flood management constraints within any proposed construction programme, and the construction cost estimate. It should also be noted on the project risk register.

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.

The Consultant shall include in their design consideration of how a contractor shall access the project site.

Works may require temporary access routes to be constructed. The temporary access routes will be constructed upon the consultation and agreement from the landowners. IFI will be responsible for seeking legal agreement with the relevant landowners. The land shall be reinstated to its original state upon completion of works.

There will be a requirement for access to the sites from local roads. 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 Doneraile Wildlife Park.

The Consultant should note that non-native invasive plant species such as Cherry Laurel (recorded in the area) may be present within the proposed site area. Care must be taken to prevent the further spread of invasive species 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.

3.6 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.

3.7 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 may include (but is not limited to):

- IFI Barrier Assessment file note outlining the WFD III SNIFFER results survey report
- IFI WFD Fish Research Team electrofishing records accessible via <https://opendata-ifigeo.hub.arcgis.com/>.
- Topographical / bathymetric survey commissioned by IFI.

The Consultant shall verify the suitability of all information for its intended use and identify any gaps that require additional survey or investigation. Where additional survey information is required, and subject to agreement, IFI will cover the direct costs of the specialists employed in accordance with Section 4.13 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 through an Open Procedure tender, via eTenders, to assist the Client with the delivery of the proposed Barrier Mitigation Project through the completion of Phases 1 to 3, as detailed in Figure 1.

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

Further to the general duties outlined below, additional tasks will be required at Phases 1 to 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 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 shall comply with the service requirements as detailed below in Table 3 **Error! Reference source not found.** and Table 4. This is a non-exhaustive list.

	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 project programme agreed with the Client.
GDL.2	Provide a detailed Project Execution Plan for the relevant phases of the project 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.
GDL.3	Establish record management 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) as required by the Client including the

General Duties of Lead Consultant	
	preparation of agendas, progress reports, meeting minutes, technical notes, risk registers etc. 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 Risk Management System for the project. A Project Risk Register shall be established at the start of the project and maintained throughout the project 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 Cost Management System to identify and mitigate, where feasible, all risks to quality, cost, and delivery of the project to the designated completion date. Update as required and inform the Client as appropriate throughout the duration of the contract (process update to form part of the 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. 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 three projects specifically.
GDL.10	Develop a Consultation and Stakeholder Engagement Plan for the project, 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 Local Authority(s) will be the primary Stakeholders. Submit to Client for approval. IFI shall assist with identifying and all landowner engagements. This plan can form a section within the PEP.
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.
GDL.12	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 track changes for final review and approval respectively. An additional version may be required where comments haven't been addressed, or additional comments arise from changes.

	General Duties of Lead Consultant
GDL.13	Fully comply with Irish Language requirements in accordance with the Official Languages (Amendment) Act (2021) as necessary through the course of the project.
GDA.14	Provide all services and resources necessary to deliver services for each Phase as listed under Section 5.
GDA.15	Fully comply with General Data Protection Regulations (GDPR) .

Table 3 General Duties of Lead Consultant

	Health & Safety/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.
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 the 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 if required.
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 ' Guidelines on the Procurement, Design and Management Requirements of the Safety Health and Welfare at Work (Construction) Regulations 2013 '
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 shall submit a Preliminary Safety and Health Plan, compliant with legislative requirement. The Preliminary Safety and Health Plan shall outline key safety issues and site hazards and identify safety measures. The plan may be issued with the tender documents to potential contractors and will form the basis of the Construction Stage Safety and Health Plan prepared by the PSCS.
HSA.7	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.8	Assist the Client in identifying, obtaining and collating the pre-construction information and provide pre-construction information to designers.

	Health & Safety/PSDP
HSP.9	Ensure that all designers including that of temporary work designers and permanent work designers comply with their duties and co-operate with each other.
HSP.10	Maintain a single register of all designers involved in the commission, with project specific information clearly outlined in the document.
HSP.11	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.
HSP.12	Attend all project health and safety meetings during the design phase.

Table 4 Health & Safety Duties of Lead Consultants

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 preliminary Health and 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.

The Consultant shall assess the competency of a PSCS for any proposed site survey/investigation works, where required, prior to the appointment of same.

The Consultant shall submit an up-to-date and relevant Safety Statement, compliant with legislative requirement, within 10 days of appointment. The Safety Statement should cover all aspects of work that may be encountered during the Project as described in the Project Brief. The Client does however reserve the right to seek Method Statements from the Consultant concerning specific tasks where deemed necessary.

4.4 Accidents & Dangerous Occurrences

The Consultant 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.

4.5 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. 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.

4.6 Project Management

The Consultant shall provide Project Management Services for the project. This shall include but not limited to,

- Progress meetings and progress reports
- Workshops
- Notification of potential change orders, and maintenance of a schedule of additional fee items
- Reporting standards and quality assurance
- Comply with all relevant National & European Legislation, guidance, and best practice.

4.7 Progress Reports

The Consultant shall prepare progress reports for presentation at each monthly progress meeting. Progress reports shall be issued three working days prior to the applicable progress meeting. Progress reports shall include as a minimum detail on the progress/issues under the following headings as a minimum:

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

4.8 Meetings & Workshops

The Consultant shall attend monthly progress meetings with the Client. Meetings are to include the preparation and issue of progress reports, minutes and Action/Decision lists of meetings

with financial updates. Minutes are to be taken by the Consultant, and draft minutes are to be issued to attendees within 5 working days of the meeting. Meetings to be attended by Project Director, Project Manager and other key personnel as required.

Monthly progress meetings shall be held online via MS Teams. Assume two in-person meetings with the Client in Macroom or other location to be agreed.

The Consultant shall also allow for 2 no. in-person meetings with the landowner, Cork County Council, OPW and Coillte each respectively.

4.9 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 4.8).

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

- Cork County Council
- Uisce Éireann
- OPW
- 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

4.10 Programme

It is anticipated that the project will commence in September 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 project that will outline the various components of each phase at commencement. The master programme shall be in Microsoft Office Project or a format agreed with the Client. The programme shall align with the performance period(s) in Schedule B of the Form of Tender and Schedule.

The master programme shall be updated and reissued to the Client on the completion of each Phase or Sub-Phase and as when requested by the Client. 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 with 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.

4.11 Public Relations

The Consultant shall assist in to provide media relations services to deal with issues that arise throughout the project. Specialists should also be available to prepare specific statements to the media. Specialists and 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.

A public information day to brief the public shall be required to discuss the project objective in the preliminary design phase once an option is identified.

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

4.12 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 Strategic Assessment and Preliminary Business Case.

The Consultant shall where appointed include for the completion of the Clients standard Business Case template provided in the background information folder.

- 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 i.e. 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.

4.13 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 service provider or contractor or utility provider shall be paid separately by 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	Publish RFT to receipt of responses	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

4.14 Documents and Drawings

4.14.1 Format

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

- All drawings in both PDF and CAD format.
- All documents shall be submitted to the Client digitally in a Microsoft Office programme (Word, Excel, Project etc.) and in PDF format.
- All documentation shall be in English and Irish where required.
- 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

4.14.2 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)

4.15 Licenses and Copyright

Royalty-free, perpetual, non-exclusive, irrevocable, license to amend/reproduce and/or use all information, drawings and reports prepared by the Consultant and their subconsultants/specialists during the course of the project without liability to the original Designer(s) is to be included in the cost of the commission.

4.16 Public Information Day

The Consultant shall undertake a non-statutory public information day in relation to any proposed works the preliminary design phase. The purpose of this shall be to clearly communicate the details of the proposals and to elicit feedback on any issues or concerns arising in relation to them.

The Consultant shall assume that one Public Information Day in person event open to the public shall be held at a suitable venue within the locality of the scheme commencing at 3pm and finishing at 8.00pm on a weekday. The Consultant shall be responsible for all organisation, publicity and running of the public consultation in person event. The Client will provide a list of suitable venues.

The Consultant shall be responsible for the preparation of information, posters, pull-ups, drawings, and brochure, including provision of publicity information. Include for attendance and recording and analysis of information gathered. The cost of venue and printing of brochures are to be borne by the Consultant. IFI will supply the mounting boards for A1 size drawings and information panels (10 no).

The Consultant will develop four number photomontages of the proposed works for display at the Public Information Day.

4.17 Business Cases

The Consultant shall prepare a Developed Business Case and Final Business Case relevant to each project phase in accordance with the Infrastructure Guidelines 2023, incorporating the requirements of the Strategic Assessment stage. The Business Case will confirm the strategic rationale for intervention, demonstrate alignment with national and sectoral policy, and assess the identified preferred option. It will include environmental analysis, a structured appraisal of costs, benefits, risks and sensitivities, and an outline procurement and implementation strategy. The Business Case will also allow for optimism bias, and set out the proposed governance, monitoring, and evaluation framework.

4.18 Statutory Consent

4.18.1 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 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 Carlow, Wexford and Wicklow County Councils, 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.

4.18.2 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, drydock 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:

1. Preparation of a planning exemption

2. 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.

4.18.3 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

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 solution. The design shall comply with relevant Eurocodes and best practice for in river works.

- a) Visiting the sites and carrying out an initial appraisal.
- b) 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.
- c) Assisting development of the Initial Project Brief including consideration of:
 - Project Outcomes
 - Quality Objectives
 - Sustainability Aspirations
 - Project Budget
 - other parameters or constraints
- d) Undertaking development of Project Risk Register.
- e) Assisting assembly of project team including contributions to the Design Responsibility Matrix, Information Exchanges and the Project Execution Plan.
- f) Compiling, revising and editing the Initial Project Brief on behalf of the Client.
- g) Carrying out Preliminary Ecological Assessment Report (PEAR) and investigations necessary for development of the Feasibility and Option Selection Report.
- h) Development of proposed mitigation options for the barriers, to include a hierarchy of preferred mitigation measures:
 - Full removal
 - Partial Removal or Breach
 - Rock Ramp or Pool and Boulder Pass
 - Bypass Channels
 - Technical Fish Pass
- i) 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.
- j) Completion of the Business Case – Preliminary (to incorporate both weirs)

5.1.1 Option Selection Process

The Consultant shall undertake an Options Selection Process to identify, evaluate, and recommend the preferred approach to barrier mitigation at the four 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.

5.1.2 Options Development

The Consultant shall develop a comprehensive set of feasible options to address fish passage barriers at each of the four 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.

5.1.3 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, inter alia:

- 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.

5.1.4 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, inter alia:
 - 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.

MCA Objective	Descriptor
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
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.

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			
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			

No.	Criterion	Weighting	Score	Wtd score	Comment
10	Option avoids damage to or loss of features of archaeological value or their settings	1			
11	Climate Change Adaptation	2			
TOTAL					

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.

5.1.5 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:

- a) Provide Project Management services including attending Project Meetings, providing Progress Reports and perform Safety & Health Duties
- b) Gap analysis of existing documentation including topographical and bathymetric surveys, civil, structural, geotechnical, hydrological and environmental surveys to identify any additional surveys that may be required to apply for planning exemptions.
- c) Provide preliminary civil, structural, hydraulic and any other necessary drawings, design notes and method statements for inclusion in the preliminary design report.
- d) 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. A key task will include the development of the weir demolition stages.
- e) Preparation of an outline cost plan in accordance with the CWMF.
- f) Scope and prepare tender and contract documents to procure any additional surveys identified. Manage any consultant and/or contractor appointed.
- g) Develop the Preliminary Construction Environmental Management Plan (CEMP). A key task will include silt/sediment management.
- h) The design will also incorporate constructability, health and safety and risk management measures.
- i) Perform a Multi Criteria Assessment on the options for barrier mitigation.
- j) Develop a hydraulic model to evaluate the effects of the proposed barrier mitigation measure on river hydraulics and flood risk.
- k) Scope, procure and manage an intrusive ground investigation to characterise subsurface and sediment conditions at the barrier locations. The client will pay the appointed GI contractor directly (as detailed in section 4.13 Procurement).
- l) Identify, assess and manage all utility services that may be affected by the barrier mitigation project and liaise with relevant utility providers.
- m) Identify all land and structure ownership and directly engage with them to assist IFI in securing in-principle access agreements.
- n) Undertake all necessary environmental surveys.
- o) Examine river channel restoration and produce drawings on proposals.
- p) Prepare all report required to obtain Statutory consent for the project.
- q) Undertake and complete Ecological Surveys and reports Article 6(2) or Appropriate Assessment (AA), Ecological Impact Assessment (EclA), Screening for Environmental Impact Assessment (EIA) and Water Framework Directive Assessment (WFD).

5.3 Phase 3 Statutory Process

The consultant shall undertake all services necessary to seek exemptions from planning from the relevant Local Authority:

- a) Prepare all planning exemption documentation including application forms, maps, drawings and supporting technical and environmental reports as required to seek exemptions from planning.
- b) Where the planning exemption route is chosen a report shall be prepared to comply with Article 6(2) of the Habitats Directive 92/43/EEC to support the objectives of the exemption. See Section 8.2 on the requirements of the Article 6(2) Report.
- c) Where a 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 via the traditional planning consent process.
- d) Attend meetings and workshops with local authorities and statutory consultees (may include but not limited to NPWS, OPW, Coillte, EPA, DHLGH, LAWPRO, DECC) and respond to clarifications and further information requests as required.
- e) Review and report on the outcome of the exemption from statutory approval process and any conditions attached.
- f) Obtain Section 47 approvals from OPW under the Arterial Drainage Act 1945

6 Hydrology and Sediments

6.1 Hydrology

The Consultant shall prepare a Hydrological Assessment for the barrier mitigation project 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.

6.2 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.

6.3 OPW Section 47 Approvals

In accordance with the Arterial Drainage Act 1945, consent is required from OPW under Section 47 for the erection or alteration of a weir and Section 50 for any construction/ alteration works on bridges and culverts. 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](#).

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

6.4 1D Hydraulic Modelling

6.4.1 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

- Mapping velocity and depth distributions across the proposed design for determining suitability for a range of species;
- Modelling a suitable channel bed design profile;
- For completion of OPW Section 47 application
- 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 above and below the structure;

The Consultant shall develop dynamic hydraulic / hydrodynamic model for the 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 in Section 6.4.2 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.

6.4.2 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
- TELEMAC-MASCARET

6.4.3 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.

6.4.4 Hydraulic Model Boundary Conditions

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

6.4.5 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 Ecological Surveys

The purpose of these surveys are 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 and this shall be included in the survey cost.

The Consultant shall undertake as a minimum, 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
- Nesting and Breeding Bird Survey
- Tree Survey
- Fish Spawning and Nursery Habitat
- White-clawed Crayfish Survey
- Freshwater Pearl Mussel

The Consultant shall be responsible for determining the extent of the survey area potentially affected by the proposed barrier mitigation measure 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 river banks, riparian zone and floodplain, as well as the proposed construction access route(s).

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.

7.1 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 shall 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.

7.2 Invasive and Non-Native Flora Survey (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.

7.3 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 at each location 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 mammals 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.

7.4 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 river banks 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.

7.5 Tree Survey

The Consultant shall commission and manage a Tree Survey to identify, map, and assess all trees and woodland areas 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.

Coillte, and NPWS where required, shall be consulted and the appointed consultant shall reach agreement with them on the tree survey works and proposal for the barrier's mitigation.

7.6 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.

7.7 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.

7.8 Freshwater Pearl Mussel

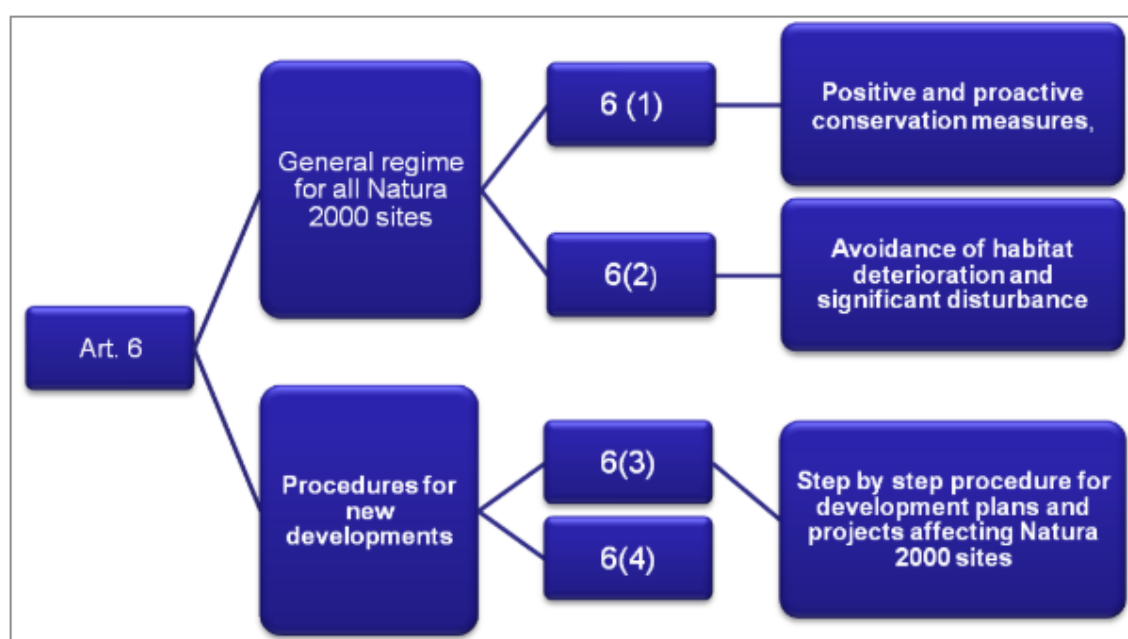
The Consultant shall undertake a Freshwater pearl mussel survey following NPWS Guidelines¹. The survey shall establish whether mussels are present within or downstream of the proposed works area. The survey shall be sufficient to recommend mitigation measures that may be required to protect the species during construction works. All surveys shall be undertaken by a suitably qualified Ecologist and shall be conducted under license in accordance with NPWS and the requirements of the Wildlife Act (as amended).

8 Environmental Reports & Data

8.1 Habitats Directive

The Consultant shall engage in early discussions with the NBMP Environmental Specialist, and 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 Article 6(2) of the Habitats Directive 92/43/EEC (Figure 6).

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 7.3 Appropriate Assessment (AA) Article 6(3).



Article 6 of the Habitats Directive

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

Figure 6 Article 6 of the Habitats Directive

8.2 Article 6(2) Report

A new process has been developed by IFI in conjunction with NPWS to assess works that are undertaken for the purpose of conservation where the qualifying interests are migratory fish species. This report is intended to assist IFI in its role as a Competent Authority when providing a determination for works that are undertaken for the purpose of conservation of QI fish species within an SAC.

A report shall be prepared to ensure that the proposed barrier mitigation works avoids any disturbance or deterioration of other habitats and species within the Natura 2000, where the barrier mitigation work has the potential to impact on other QIs. 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 should be taken to avoid significant

deterioration of habitats or disturbance of species in the SAC. The 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.

8.3 Appropriate Assessment (AA) Article 6(3)

Should it be determined that an Article 6(2) is not applicable, the consultant shall prepare an Appropriate Assessment following the guidelines set out in [Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities \(DEHLGH, 2009\).](#)

8.4 AA Screening Report

AA Screening Report(s) shall be prepared where required, e.g. Geotechnical Investigations/main works, 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 shall be published on IFI's database for AA Determinations following the recommendation of the AA Screening Report.

8.5 Natura Impact Statement (NIS)

If the findings of the Appropriate Assessment (AA) Screening 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 (2021) “Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.”

8.6 Ecological Impact Assessment (EcIA)

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

The EcIA 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.

The EcIA 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 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 of the Wildlife Act.

For invasive species, the EcIA 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 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.

8.7 Environmental Impact Assessment (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. In the first instance the Consultant shall prepare a report for the Client addressing whether an Environmental Impact Report may be required for the scheme on the basis that the scheme does 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 the scheme.

Where the conclusion is that an EIA is not required, the Consultant shall provide a EIA Screening report 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.

8.8 Water Framework Directive (WFD) Screening

A WFD Screening Assessment shall be prepared to determine whether the proposed project has 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 project.

8.9 Preliminary Construction Environmental Management Plan

The Consultant shall prepare a Preliminary Construction Environmental Management Plan (CEMP) to support the planning and design development of the barrier mitigation project. 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

8.10 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 **Error! Reference source not found.**

9 Design

9.1 Design General

The Consultant shall undertake the civil and structural design necessary to deliver safe, practical, and cost-effective solutions for the removal, modification, or adaptation of the barrier(s) identified. The design shall include condition assessments of the barrier(s) and associated structures (i.e. sluices, aprons, abutments, river walls and millraces), 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 shall be followed.

The design shall consider opportunities for reuse of suitable waste material arisings 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.

Reference: [EPA Best Practice Guidelines for the preparation of resource & waste management plans for construction & demolition project](#).

9.2 Utilities

The Consultant shall in co-ordination with the PSDP identify all potential services, within and on the approaches to the site(s). The Consultant shall also include for undertaking site(s) services search. The Consultant shall liaise and make arrangements for temporary or permanent relocation if deemed necessary for completion of the permanent works. Cost for utility provider(s) shall be paid separately by Client.

9.3 Land and Structure Ownership

The Consultant shall liaise with Coillte and the OPW, and the PRAI to establish wayleaves, access points, etc. IFI will establish landowner consents for the proposed barrier mitigation project.

9.4 River Restoration Design

The Consultant shall prepare a river restoration design to reinstate riffle–pool morphology and natural bank form. The design shall incorporate bank stabilisation and planting using native species. Drawings shall illustrate proposed channel form, bank regrading, and reinstatement of the riparian zone.

9.5 Constructability Assessment

The Consultant shall undertake a constructability assessment of proposed works to the Weir and associated river restoration works to confirm that the project can be delivered safely, efficiently and with minimal environmental impact.

The assessment shall address access and egress arrangements, site logistics and site compound locations, the need for and feasibility of temporary works (including flow diversion and bank stabilisation), identification of construction demobilisation trigger rainfall events within the catchment area and the sequencing of demolition and restoration to avoid uncontrolled drawdown or sediment release. This will inform the ecological assessments and relevant environmental processes.

It is necessary to include the effects of flood management constraints in a proposed construction programme. A project risk register shall be created and included noting the above risk. This assessment shall incorporate seasonal and ecological constraints and health and safety requirements under the Construction Regulations.

9.6 Cost, Value and Risk Management

The Consultant shall prepare a cost plan for the proposed option in accordance with the Capital Works Management Framework (CWMF), using TII's Requirements for Measuring and Pricing (RMP, 2022) adapted to reflect the scope of works (demolition of hydraulic structure, sediment management and river restoration). The cost plan will provide order-of-magnitude estimates benchmarked against comparable projects, with allowances for risks, inflation, and optimism bias, as recommended in the Infrastructure Guidelines 2023.

9.7 Landscape Design

The Consultant shall design landscape mitigation and enhancement proposals (e.g., re-vegetation, screening) which shall be integrated into the river restoration design.

9.8 Design Report

The design report shall consolidate the results of all surveys, analyses, and investigations undertaken to inform the design and shall include, but not be limited to, the following:

- **Description of the Proposed Project:** A clear description of the design/works at the weir, including methodology for works, river realignment, bank stabilisation, sediment management and restoration of the natural river channel morphology.
- **Survey and Investigation Outcomes:** Full details of the surveys and investigations undertaken (structural, hydraulic, geotechnical, environmental (provided by others), and utility-related etc). The report shall demonstrate how the findings of these surveys have been incorporated into the proposed design.
- **Impact Assessment:** An assessment of the potential impacts of the proposed works, including:
 - Effects on fish species and wider aquatic ecology, with reference to improved longitudinal connectivity.
 - Impacts on river hydrology and sediment transport, including the management and classification of impounded silts and the reuse of concrete and other demolition arisings in line with circular economy principles.
 - Impacts on landscape, amenity, and recreation in the local area.
- **Constructability Assessment & Construction Methodology**

- Indicative Programme: A timeline for the overall construction programme, with sequencing of key activities (e.g. demolition, sediment management, channel restoration, landscaping and monitoring).
- Cost Estimate
- Include for any future maintenance requirements
- Risk Register: An updated risk register identifying technical, environmental, safety, and programme risks, with associated mitigation measures.
- Alignment with Policy and Guidance: Confirmation that the proposed project aligns with the Capital Works Management Framework, Infrastructure Guidelines 2023, and applicable national and EU environmental legislation (WFD, Habitats Directive, Biodiversity Strategy).

The Consultant shall develop and prepare the design drawings in accordance with good industry practice, taking cognisance of all relevant legislation and information particularly the planning exemption application.

9.9 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 shall 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 Consultant shall prepare a Waste Plan in line with the Waste Management Acts 1996–2023 and City Council/EPA guidance. The plan shall address reuse of demolition arisings (e.g. crushed concrete), beneficial reuse of sediments, and licensed disposal where reuse is not feasible.

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.

Reference: [EPA Best Practice Guidelines for the preparation of resource & waste management plans for construction & demolition project](#)

10 Geomorphology & Sediment

10.1 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 (potentially combined with the Ground Investigation if practicable). Results of the sediment analysis (particle size distribution) will be used to establish the risk of sediment redistribution associated with barrier mitigation. Results of the chemical analysis will 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 and restoration design; and analyse for hydrocarbons, heavy metals, nutrients, and other contaminants in line with EPA guidance. Screening for hazardous materials, 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.

The Client shall pay for the sediment sampling and analysis.

10.2 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 of the barrier could potentially affect channel morphology, sediment continuity, and overall river functioning, and in particular considering the sediment that has built up behind the weir. This shall include an estimate of the volume of this sediment. It shall characterise existing channel conditions (planform, gradient, cross-sections, bank profiles, and floodplain connectivity).

The study shall evaluate the influence of the barrier 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.

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

10.3 Sediment Model

The Consultant shall undertake Sediment Modelling to assess how the removal, modification, or adaptation of the barrier(s) shall influence sediment transport, deposition, and channel adjustment within the watercourse. The model shall be developed using an industry recognised standard approved software capable of simulating bedload transport (e.g. HEC-RAS Sediment Transport, TUFLOW-SED, MIKE 21 ST), incorporating outputs from topographical and bathymetric surveys, the geomorphology study, and sediment sampling and analysis.

The modelling shall simulate baseline (existing), construction phase (e.g. staged demolition, sediment release), and post-mitigation scenarios (restored sediment continuity), assessing the fate of impounded sediments, downstream deposition patterns, channel morphology, and flood conveyance. It shall evaluate short-term risks such as sediment plumes or siltation of sensitive habitats, and long-term outcomes such as channel stabilisation, re-established sediment balance, and habitat improvement. This shall inform the overall Design and Waste management & Circular Economy evaluation.

11 Cultural Heritage

11.1 General

Watercourse corridors often have a long history of industrial and community use, reflected in the presence of historic mills, bridges, fords, and associated structures along their course. The barrier(s) are directly linked to former industrial activity, and several recorded archaeological and architectural heritage sites are located within or adjacent to the project area.

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 works.

11.2 Archaeological Assessment

The Consultant shall undertake an archaeological assessment to ensure that any potential archaeological constraints are identified at an early stage of the project. The assessment shall be undertaken by a suitably licensed Archaeologist in accordance with the National Monuments Acts 1930–2014, the Framework 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 footprint.
- 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 shall 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.

11.3 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 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 an 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.

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.

Annacottyweir_Habitats_04112025.shp

Field name	Data Type	Description
Project	Text	Project name, e.g. Annacotty weir
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, e.g. IFI

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_SurveyDate.shp, e.g.

Annacottyweir_otter_survey_04112025.shp

Field name	Data type	Description
Project	Text	Project name, e.g. Annacotty weir
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, e.g. IFI

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.

Annacottyweir_pbr_survey_04112025.shp

Field name	Data Type	Description
Project	Text	Project name, e.g. Annacotty weir
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, e.g. IFI

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. Annacottyweir_INNS_04112025.shp

Field name	Data Type	Description
Project	Text	Project name, e.g. Annacotty weir
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, e.g. IFI

Appendix A Table 4 List of attributes for INNS Survey Shapefiles