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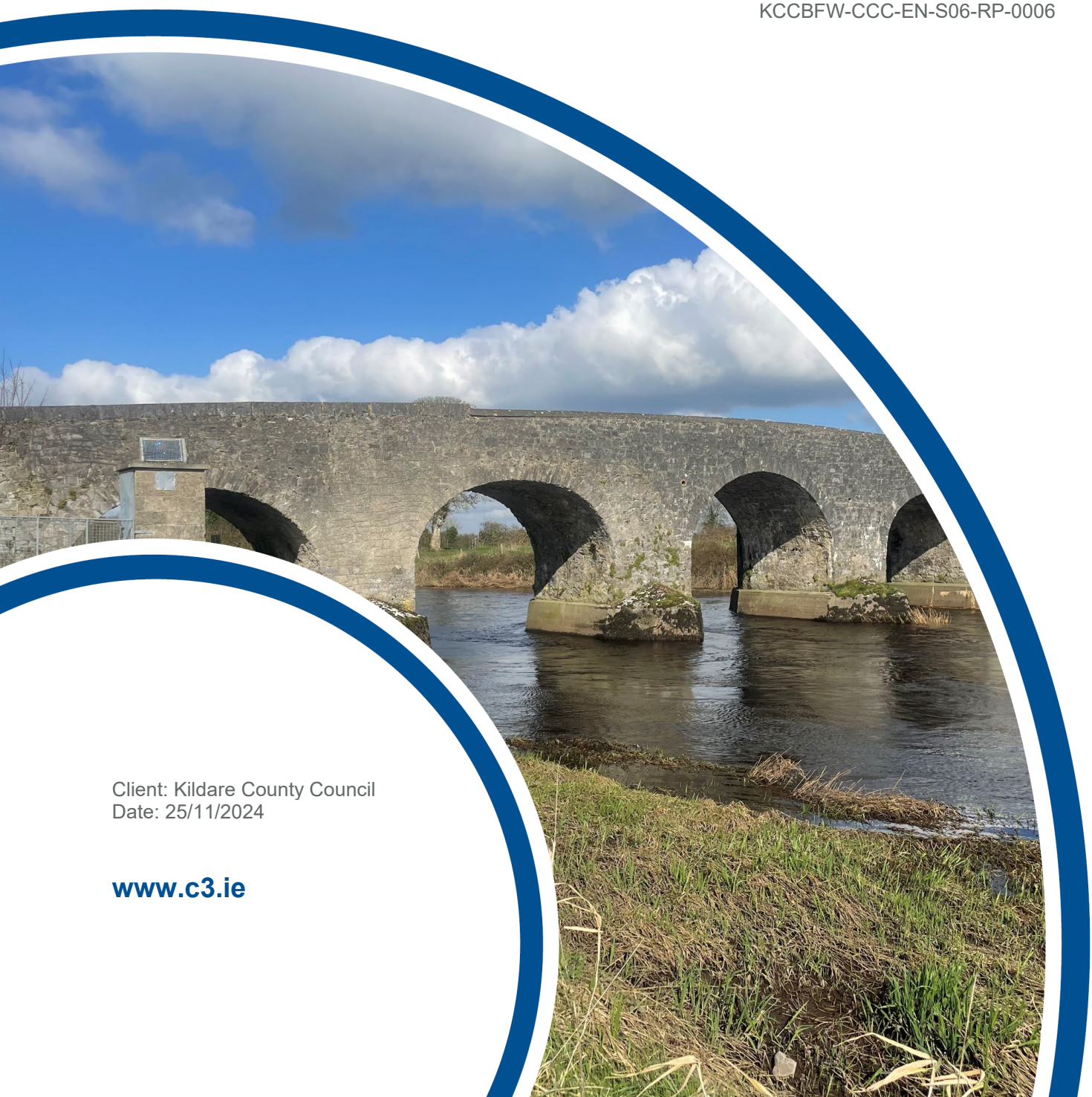
CIVIL CONSULTING

BRIDGE REHABILITATION WORKS AT PASS BRIDGE, PASSLANDS, MONASTEREVIN

Environmental Impact Assessment Screening Report

KCCBFW-CCC-EN-S06-RP-0006



Client: Kildare County Council
Date: 25/11/2024

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Table of Contents

Appendices

List of Figures

Issue and revision record

Date	Rev	Change Description	Author	Checker	Approver
25/11/2024	P01	Issue to Client	RK	HS	SC

Detailed Change Log

Rev	Change Description

1. Introduction

This Environmental Impact Assessment (EIA) Screening Report has been prepared by Clandillon Civil Consulting (CCC) for Kildare County Council (KCC). CCC were appointed by KCC as part of the Framework Agreement for Consultancy Services for Bridge Rehabilitation Works in Co. Kildare. As part of the first call/off under this Framework, CCC will provide technical consultancy services for stages i) preliminary to v) handover for the rehabilitation works of the Pass Bridge at Passlands which crosses the River Barrow in Monasterevin, County Kildare.

The Engineering Inspection (EI) identified the primary structural defects at the bridge together with the secondary issues associated with bridge maintenance. Rehabilitation works for structural elements and maintenance of the bridge are recommended. Details of the proposed works are contained in the Project Drawings.

The purpose of this EIA Screening Report is to determine whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR). This report documents the screening completed to provide a summarised overview of the potential impacts identified on the receiving environment whilst considering relevant statutory requirements.

The report was completed by Ruth Kiely and Dr. Heather Scully (Environmental Scientist and Environmental Coordinator), in conjunction with the Project Manager, Paul Trofimov and Project Director Senan Clandillon.

2. Proposed Works

2.1 General Overview

The purpose of this report is to provide the competent authority (Kildare County Council) the necessary information to enable them to make a determination as to whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR). This report documents the screening completed to provide a summarised overview of the potential impacts on the receiving environment whilst taking cognisance of the relevant statutory requirements.

Documents referred to as part of this assessment include:

- Appropriate Assessment Stage 1: Screening Report (Flynn Furney Environmental Consultants (FFEC) 2024)
- Appropriate Assessment Stage 2: Natura Impact Statement (NIS) (FFEC 2024)
- Construction Methodology CCC
- Archaeological Heritage Impact Assessment (ACSU 2024)

An AA screening was completed for the proposed works to confirm if likely significant effects on European sites will arise from the proposed works either alone or in combination with other plans or projects and also whether or not the proposed development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

The AA Screening Report prepared by FFEC concluded that an Appropriate Assessment of the proposed Project is required as it could not be concluded, on the basis of objective information, that the proposed Project, either individually or in combination with other plans or projects, will not have a significant effect on the following European site(s): River Barrow and River Nore SAC. As part of the Appropriate Assessment process, CCC engaged FFEC to prepare a Natura Impact Statement (NIS). The summary of the NIS was that based on the assessment of the proposed development alone and in combination with other projects and plans, including the implementation of mitigation measures, it can be concluded that no adverse effects on the site's integrity will arise in view of the site's conservation objectives.

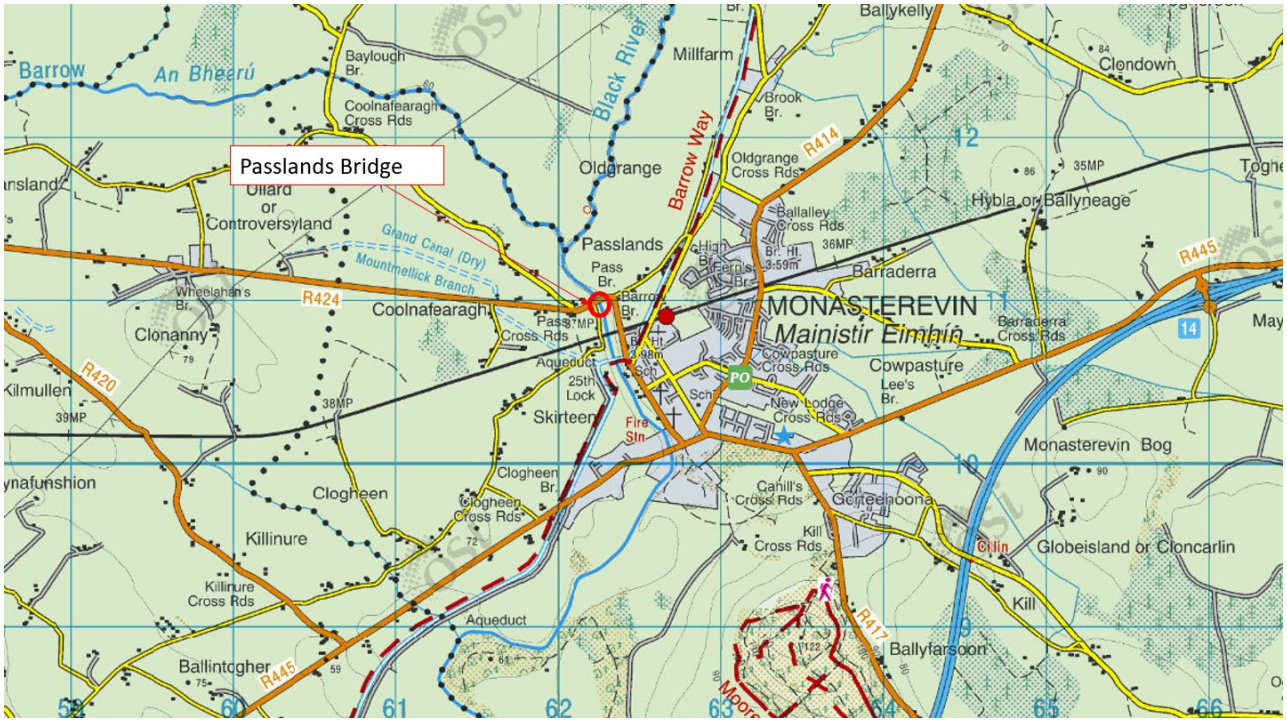
2.2 Site Location

Pass Bridge crosses the River Barrow which flows from North to South at this location. The bridge carries the Regional Road R424 over the river north of Monasterevin town in County Kildare. The road is reduced to one lane over the bridge with traffic lights on both approaches.

The bridge is a five-span masonry arch bridge. The structure is constructed c. 1750 with rubble stone and is a registered heritage structure (NHBS number 11816100). Bridge round arches and parapets are also constructed with rubble limestone. Parapets are finished with cut-stone coping. The spandrels and arch barrels are constructed with random rubble limestone with variable-width lime mortar joints. The arch voussoirs comprise a dressed limestone with thin lime mortar joints. The bridge piers have distinctive full-height V-shape cutwaters with pedestrian refuges at the road level. Concrete skirting is installed to all piers and abutments and terminates approximately 1.0m above water level measured during the inspection.

The river flows through all the five spans. A water level measuring station is located on the southwest embankment immediately to the bridge. The River Barrow is a major river with deep water noted at the bridge during the site visit.

Figure 1: Site Location Map (ITM 662187, 711035)



2.3 Description of Works

CCC completed the Engineering Inspection (EI) and prepared a preliminary design report and detailed design for the recommended works to this structure.

The CCC's scope of work for the Passlands Bridge Rehabilitation Works comprises consultancy design services for Stages i) Preliminary to v) Handover. Currently, Stage i) Preliminary and ii) Detailed Designs have been completed.

2.3.1 Stage i) Preliminary Design work

At Stage i) CCC had completed the Passlands Bridge Preliminary Design Report (PDR) for Kildare Co Co. As part of the PDR, the following works have been completed;

- Site visit and Engineering Inspection (EI) of the structure. The EI focused on the condition of the structure, recorded and rated the defects and identified preliminary rehabilitation measures.
- Desktop studies of utilities, and assessment of the ecology, hydrology, environment, architectural and cultural heritage of the structure. A recommendation was made by CCC for an ecologist site visit and cultural and heritage impact assessment to be completed for this protected structure.
- Additional third-party works have been procured by CCC at this stage such as: Topographical and utility surveys, ecologist site visits and Ecological Appraisal Reports, archaeologist site visits and Architectural Impact Assessment Reports.
- Preliminary rehabilitation proposals for the identified defects, preliminary costing of the rehabilitation works, and review of the H&S during the construction of the proposed rehabilitation works.
- Preliminary design drawings outlining the existing structure layout and geometry, defects and defects photos, preliminary rehabilitation design and the scope of the works with quantities.

Examples of the Preliminary Design drawing are illustrated in **Figure 2**.

Figure 2 Preliminary Design Drawings - Defects

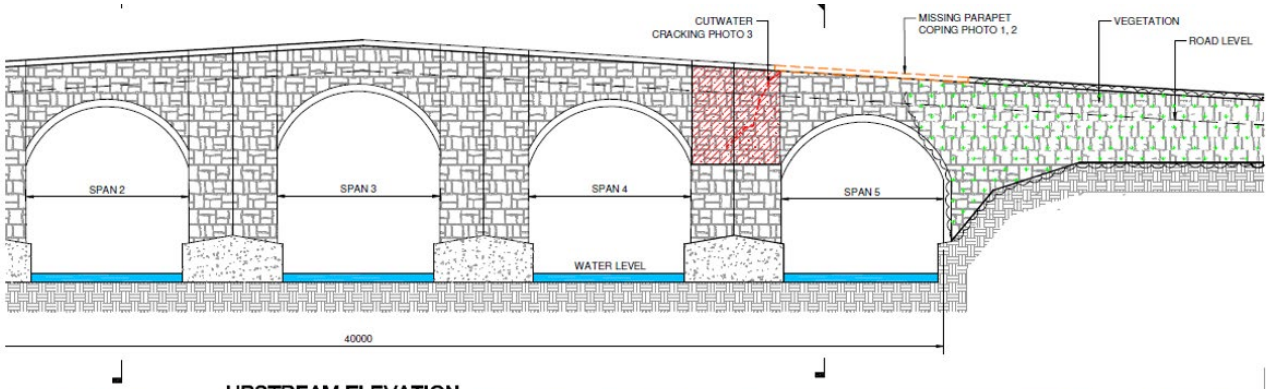


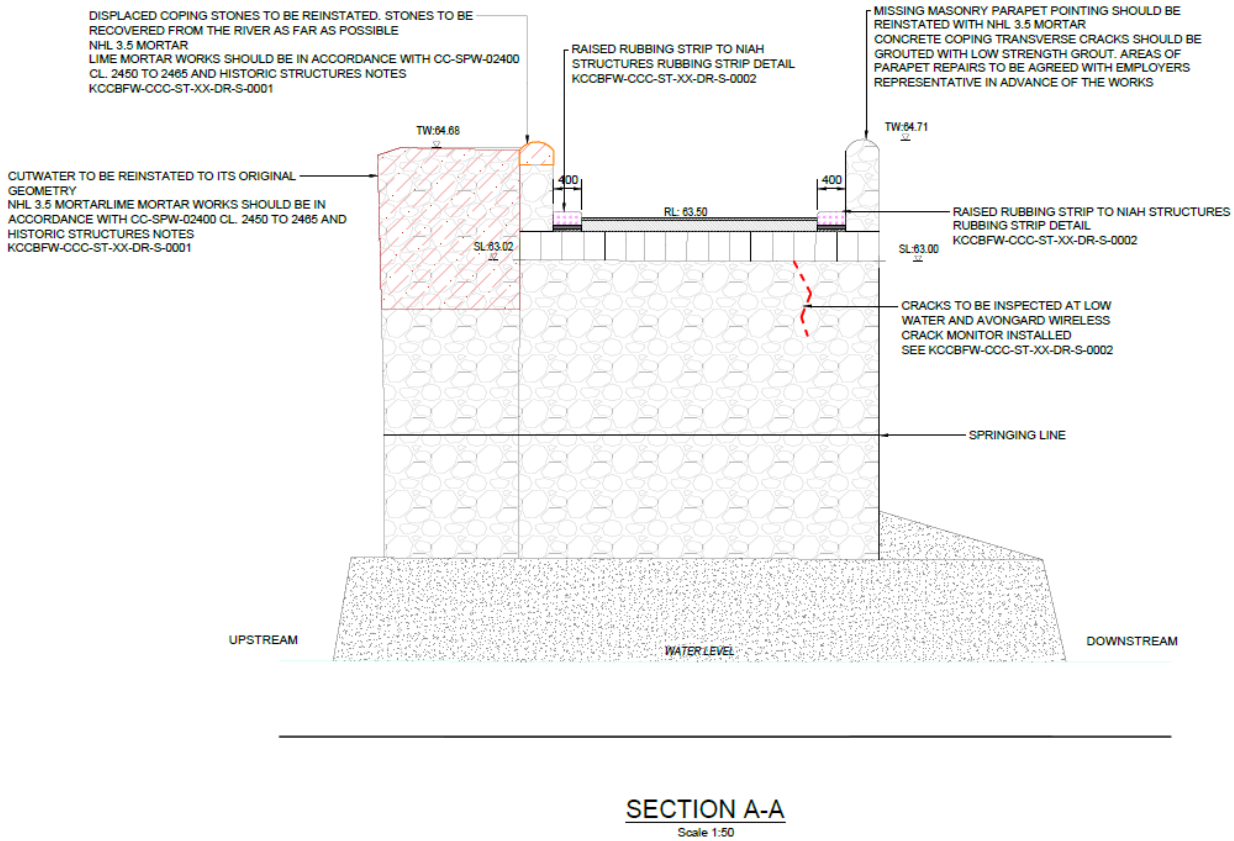
PHOTO 2 (MISSING PARAPET COPING AND CUTWATER CRACKING)

PHOTO 3 (CUTWATER CRACKING)

2.3.2 Stage ii) Detailed Design work

At the Detailed Design stage CCC design team has prepared a set of detailed design documents considering the additional surveys carried out such as topographical/ utilities and Ecological Appraisal. The design of the rehabilitation works considered the conservation principles in order to reduce the impacts of the rehabilitation works on the protected structure while reinstating the original fabric and improving its long-term durability. The examples of the detailed design rehabilitation works proposed for the Passlands Bridge are outlined in **Figure 3**.

Figure 3 Detailed Design - rehabilitation works



SECTION A-A
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In the next Stage iii) Tender, CCC will prepare the comprehensive Tender Pack for procuring the construction contractor to carry out the rehabilitation works. The Tender Pack will contain the third-party surveys, Detailed Design Drawing, Preliminary Health and Safety Report and detailed Specification Document along with other supporting design documentation.

3. Environmental Impact Assessment – Legislative Context and Guidance

The current requirements for EIA for projects are set out by the European Union in Council Directive 2011/92/EU on the Assessment of the Effects of Certain Public and Private Projects on the Environment as amended by Directive 2014/52/EU. Further details are provided in Section 3.1 below.

The Planning and Development Acts 2000 to 2022 and the Planning and Development Regulations 2001 to 2022 were both amended by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) to take account of the requirements of the EIA Directive (Directive 2014/52/EU).

Section 172 of the Planning and Development Acts 2000 to 2022 sets out the requirement for EIA whilst the prescribed classes of development and thresholds that trigger a mandatory EIA are set out in Schedule 5 of the Planning and Development Regulations 2001 to 2022 and Section 50 of the Roads Act 1993, as amended. Further details are provided in Section 3.2 below.

Section 103 of the Planning and Development Regulations 2001 to 2022 and Section 50(1)(b) and 50(1)(c) of the Roads Act 1993, as amended, sets out the requirements for screening a sub-threshold development for EIA. Further details are provided in Section 3.3 below. Finally, the information to be provided by the applicant or developer for the purposes of screening sub-threshold development for EIA is set out in Schedules 7 and 7A of the Planning and Development Regulations 2001 to 2022. Further details are provided in Section 4.1 below.

A review of the above legislation was undertaken for the purpose of this EIA screening report and is further analysed in the sections below.

3.1 EIA Directive

EIA Directive 2014/52/EU provides criteria that are applied in the screening phase to determine if a development is likely to have a significant effect on the environment. The criteria are as follows:

- the Characteristics of the Projects, which must be considered having regard, in particular, to the size and design of the whole Project, the cumulation with other existing and/or approved Projects, the use of natural resources, the production of waste, pollution and nuisances, and the risk of major accidents and/or disasters and the risks posed to human health.
- the Location of the Projects, so that the environmental sensitivity of geographic areas likely to be affected by Projects must be considered, having regards to the existing and approved land use, the relative abundance, availability, quality and regenerative capacity of natural resources and the absorption capacity of the natural environment in particular.
- Type and Characteristics of the potential impact with regards to the impact of the Project on the environmental factors specified in Article 3(1).

The characteristics of the project, its location and potential impact are described and assessed in Section 5 of this report.

3.2 Planning and Development Act

In the context of planning, the EIA Directive is given effect in Ireland through the Planning and Development Act 2000 (as amended). Ireland transposed Directive 2014/52/EU into Irish law, the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, came into operation on 1st September 2018. A strengthened screening procedure was one of the key changes introduced by the 2014 Directive. It sets out new information requirements for the

developer (Annex IIA) and new selection criteria to be used by the competent authority in making their screening determination (Annex III).

KCC has obligations under Article 129 the Planning and Development Act 2000, as amended to undertake mandatory EIA for specified classes of development and Appropriate Assessment (AA) and Environmental Impact Assessment (EIA) screening for sub-threshold development for local authority own development.

Where there is a possibility that the development may significantly affect the environment, KCC must prepare information on the development specified under Annex II and Annex III of the EIA Directive and transposed into Irish legislation under schedule 7A of the Planning and Development Regulations which is the appropriate information necessary to undertake an EIA Screening. This is the information which would typically be presented in a report to inform EIA Screening.

3.2.1 Mandatory EIA

Every project listed in Part 1 of Schedule 5 of the Planning and Development Regulations must be subject to an EIA if the stated threshold set out within that Schedule has been met or exceeded or where no thresholds are set, and accordingly, an EIAR must be submitted to the competent authority with an application for development consent in this regard.

No development types listed in Schedule 5 Part 1 are applicable to the proposed scheme. Accordingly, the project is not subject to a mandatory EIA.

3.2.2 Sub-Threshold EIA

An examination of Parts 1 and 2 of Schedule 5 of the Planning and Development Regulations indicates that the nature and scale of the proposed scheme is such that it would not trigger a mandatory EIA under these Regulations.

3.3 Road Traffic Act, 1993

Section 50 of the Roads Act (1993 to 2015) sets out the types of roads projects for which mandatory EIA is required. The classes of proposed road development automatically subject to an EIA is set out below:

Table 1: Screening Matrix for Mandatory EIA for Road Projects

Screening Matrix for Mandatory EIA for Road Projects		
Mandatory Threshold	Regulatory Reference	Assessment
Construction of a Motorway	S. 50(1)(a)(i) of the Roads Act, 1993, as amended	The proposed development is not a Motorway. Mandatory threshold not reached.
Construction of a Busway	S. 50(1)(a)(ii) of the Roads Act, 1993, as amended	The proposed development is not a Busway. Mandatory threshold not reached.
Construction of a Service Area	S. 50(1)(a)(iii) of the Roads Act, 1993, as amended	The proposed development is not a Service Area and does not incorporate a Service Area. Mandatory threshold not reached.
Any prescribed type of proposed road development consisting of the construction of	Article 8 of the Roads Regulations, 1994 (prescribed type of road development for the	The proposed development does not involve the construction of a new road of four or more lanes, or

Screening Matrix for Mandatory EIA for Road Projects		
a proposed public road or the improvement of an existing road, namely: • The construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area • The construction of a new bridge or tunnel which would 100 metres or more in length.	purposes of S. 50(1)(a)(iv) of Section 50 of the Act	widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area, Mandatory threshold not reached. The proposed development does not involve the construction of a bridge or a tunnel of more than 100m in length. Mandatory threshold not reached.

None of the development types set out in Section 50(1)(a)(i) to (iv) of the Roads Act are applicable to the proposed scheme. Accordingly, the project is not subject to a mandatory EIA.

3.3.1 Sub-Threshold Development

Road projects falling below the thresholds created (i.e., 'sub-threshold' development) need to be screened for EIA on a case-by-case basis.

Section 50(1)(b) and 50(1)(c) of the Roads Act 1993, as amended sets out the requirements for screening a sub-threshold development for EIA.

Section 50(1)(b) of the Roads Act 1993, as amended, states:

'If An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall direct the development be subject to an environmental impact assessment'.

Section 50(1)(c) of the Roads Act 1993, as amended, states:

"Where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies [paragraph (a) relates to development mandatorily requiring EIA]) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development."

Section 50(1)(e) of the Roads Act 1993, as amended states:

"Where a decision is being made pursuant to this subsection on whether a road development that is proposed would or would not be likely to have significant effects on the environment, An Bord Pleanála, or the road authority or the Authority concerned (as the case may be), shall take into account the relevant selection criteria specified in Annex III."

3.4 EIA Guidance

3.4.1 Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment

The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) have transposed Directive 2014/52/EU and are incorporated into the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (the Guidelines). Chapter 3 of these Guidelines deals with the EIA Screening process.

As referred to in Section 3.5 of the Guidelines, the EIA Screening process is based on professional expertise and experience, having due regard to the 'Source - Pathway - Target' (SPT) model, which identifies the source of likely significant impacts, if any, the environmental factors (target) which will potentially be affected, and the route (pathway) along which those impacts may be transferred from the source to the receiving environment.

As per Section 3.1 of the Guidelines, the screening determination "is a matter of professional judgement, based on objective information relating to the proposed project and its receiving environment. Environmental effects can, in principle, be either positive or negative".

The EIA Screening process must also have regard to the European Court ruling that the EIA Directive has a "wide scope and a broad purpose" when determining if an EIAR is required.

The Chapter 3 Guidelines have been considered in developing the assessments and conclusions contained this report.

3.4.2 Guidelines on the information to be contained in Environmental Impact Assessment Report (EPA, May 2022)

The stated primary objective of the guidelines is to improve 'the quality of EIARs with a view to facilitating compliance (with the Directive). By doing so they contribute to a high level of protection for the environment through better informed decision-making processes.' According to the guidelines the start of the EIA process involves making a decision about whether an EIAR needs to be prepared or not. The guidelines note that the decision-making process begins by examining the regulations and if this does not provide a clear answer then the nature and extent of the project, the site and the types of potential effects are examined.

3.4.3 Environmental Impact Assessment Screening OPR Practice Note (PN02) 2021

This Practice Note was published in June 2021 by the Office of the Planning Regulator (OPR) and provides information and guidance on screening for EIA by planning authorities. It includes useful templates and addresses issues that commonly arise. The OPR Practice Note does not have the status of Ministerial Guidelines issued under Section 28 of the Planning and Development Act 2000, but are issued for general information purposes only, in accordance with the OPR's statutory remit to engage in education, training and research activities.

3.4.4 TII: Environmental Planning of National Road and Greenway Projects (RE-ENV-07008) (2023)

Transport Infrastructure Ireland (TII) published this Technical Document in February 2023. The purpose of this Technical Document is to assist those involved in the planning of national road and greenway projects to navigate some of the complex environmental and planning law that they will commonly encounter in their work. It presents the results of research carried out by TII's Environmental Policy and Compliance Section. It constitutes a non-exhaustive and non-definitive guide to relevant legislation.

3.4.5 NTA: Guidance for EIA and AA Screening for Active Travel Projects funded by the NTA (October 2023)

The National Transport Authority have recently published a document on EIA and AA screening, specifically for NTA-funded active travel projects. The document outlines the necessary steps in the screening process, the legislative context underpinning the process, and common pitfalls in report preparation. The objective is to ultimately standardise the EIA and AA screening reports that are being submitted as part of planning applications. These guidelines are aimed at local authorities when completing reports, and reference templates are provided for both local authorities and the organisations carrying out the screening.

3.4.6 Other Guidance

The screening assessment was also undertaken with regard to the following guidance:

- European Commission (2001), Guidance on EIA Screening;
- EPA (2002), Guidelines on the Information to be Contained in Environmental Impact Statements;
- EPA (2003), Advice Notes on Current Practice in the Preparation of Environmental Impact Statements;
- Department of Environment, Heritage and Local Government (2003), EIA Guidance for Consent Authorities regarding Sub-threshold Development;
- EPA (2015), Advice Notes for Preparing Environmental Impact Statements, Draft; and,
- Department of Housing, Planning, Community and Local Government (2017) Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems.

3.5 Conclusion

The proposed scheme is not a type of development listed in Schedule 5 of the Planning and Development Regulations 2001, as amended. Kildare County Council, under Section 50 of the Roads Act 1993 and the Planning and Development Regulations, in considering a local authority own development, must have regard to whether or not such a development is likely to have significant effects on the environment. The purpose of this report is to assist Kildare County Council, as the Competent Authority, in determining whether, the project is likely to have a significant effect on the environment by addressing the criteria and information set out in Annex III and IIA of the EIA Directive and Schedules 7 and 7A of the Planning and Development Regulations 2001-2021, as amended.

4. EIA Screening Methodology

The approach proposed for completing the screening assessment for the proposed project is to present the necessary information to inform the screening determination by the Competent Authority with reference to the three headings and subheadings of Annex III of the EIA Directive.

4.1 Schedule 7 and Schedule 7A of the Planning and Development Regulations

Annex III of the EIA Directive is transposed into Irish legislation in Schedule 7 of the Planning and Development Regulations 2001-2021. The Criteria as set out in Schedule 7 sets out the criteria for determining whether Development listed in Part 2 of Schedule 5 of the Planning and Development Act 2001-2021 should be subject to an Environmental Impact Assessment. Schedule 7A provides information which a developer must provide to the competent authority to inform a screening determination, as set out in the tables below.

Table 2: Characteristics of the Proposed Development

The characteristics of projects must be considered, with particular regard to:
The size and design of the whole of the proposed development,
Cumulation with other existing development and/or development of the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment.
The nature of any associated demolition works,
The use of natural resources, in particular land, soil, water and biodiversity
The production of waste,
Pollution and nuisances,
The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge,
The risks to human health (for example, due to water contamination or air pollution).

Table 3: Location of the Proposed Development

The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to -
The existing and approved land use,
The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,
The absorption capacity of the natural environment, paying particular attention to the following areas:
• Wetlands, riparian areas, river mouths;
• Coastal zones and the marine environment;
• Mountain and forest areas;

The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to -
• Nature reserves and parks;
• Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;
• Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;
• Densely populated areas;
• Landscapes and sites of historical, cultural or archaeological significance.

Table 4: Type and Characteristics of the Potential Impacts of the Proposed Development

The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2 of this Annex, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—
The magnitude and spatial extent of the impact (for example. Geographical area and the size of the population likely to be affected,
The nature of the impact,
The intensity and complexity of the impact,
The probability of the impact,
The expected onset, duration, frequency, and reversibility of the impact,
The possibility of effectively reducing the impact,
The transboundary nature of the impact,
The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development of the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment

5. EIA Screening Evaluation

5.1 Characteristics of the Project

The Guidelines on the Information to be contained in Environmental Impact Assessment Report (EPA, May 2022) states that the primary objective of the guidelines is describe the information to be considered under this heading as:

'the size of the proposed development, the cumulation with other proposed development, the use of natural resources, the production of waste, pollution and nuisances, the risk of accidents and having regard to substances or technologies used.'

Annex II A (2a) requires a description of the physical characteristics of the whole project and, where relevant, of demolition works.

5.1.1 The size and design of the whole of the proposed development

Pass Bridge carries the R424 over the River Barrow located in the northwestern area of Monasterevin town, Co. Kildare. The bridge is a five-span masonry arch bridge. The structure is constructed c. 1750 with rubble stone and is a registered heritage structure (NHBS number 11816100). Bridge round arches and parapets are also constructed with rubble limestone. Parapets are finished with cut-stone coping. The spandrels and arch barrels are constructed with random rubble limestone with variable-width lime mortar joints. The arch voussoirs comprise a dressed limestone with thin lime mortar joints. The bridge piers have distinctive full-height V-shape cutwaters with pedestrian refuges at the road level. Concrete skirting is installed to all piers and abutments and terminates approx. 1.0m above water level measured during the inspection.

The river flows through all the five spans. A water level measuring station is located on the southwest embankment immediately to the bridge. The River Barrow is a major river with deep water noted at the bridge during the site visit.

The works planned for this project, in relation to this EIA Screening Report include:

- Reinstatement of damaged pier cutwater on the upstream
- Inspection and repair of masonry arch cracking
- Installation of raised rubbing strip along soft verge
- Reconstruction of damaged parapet including repointing
- Vegetation clearance

5.1.2 Other existing or permitted development

Schedule 7 requires that the characteristics of the development include an examination of the potential for cumulative impact of the proposed scheme with other existing developments and nearby consented developments, along with proposed scheme, which are the subject of a consent which require EIA or other enactment e.g., SEA.

A search has been conducted of planning applications within the vicinity of the proposed scheme. This has been done using the Kildare County Council Web Portal map and the Department of Housing, Planning and Local Government EIA portal.

A review of Kildare County Council planning records for the area was undertaken. The review covered projects which are in receipt of a grant of planning within the last 7 years. None of these are to the scale and nature of these works and relate to developments, demolitions, renovations and conversion of building structures with the exception of the bridge remediation project to Monasterevin

Bridge which carries the R445 across the River Barrow approximately 1km downstream of Pass Bridge.

Taking into account the review of planning applications, it is considered unlikely that any of the proposed developments will result in a significant cumulative impact (including potential cumulative traffic impacts, surface water quality, etc). The proposed rehabilitation works are short term by their very nature. Hence no significant potential cumulative environmental impacts have been identified to the proposed development (either during the construction or operational phases), arising from committed developments in the immediate vicinity.

5.1.3 The nature of any associated Demolition Works

Works will involve removing and replacing locally certain elements such as the damaged masonry cutwater. However, demolition of the entire structure will not take place.

5.1.4 The use of Natural Resources

There will be no long-term use of any natural resource as this project by its very nature is of short-term duration and required to provide rehabilitation works to a bridge structure.

5.1.5 Production of Waste

Waste generated during the course of the project will primarily be reused on site where possible e.g. topsoil generated will be reused to provide landscaping and material excavated will be reused upon completion of the works. However, in the case where offsite disposal is required for any material it will be managed in accordance with all relevant waste management legislation. There will be no generation of waste following the completion of the works.

Waste streams typically generated from the construction works are identified in Table 5 below.

Table 5: Typical waste streams arising.

European Waste Code (EWC)	Waste Stream
13 07	Liquid fuels
17 01	Concrete blocks, tiles and ceramic
17 02	Wood, glass and plastic
17 03	Bituminous mixtures, coal tar and tarred products
17 04	Metals (including their alloys)
17 05	Soil and stones
17 09	Mixed construction and demolition (C&D) waste
20 01 01	Paper and cardboard
20 02 01	Green waste
20 02 33 and 20 02 34	Electric and electronic components

Waste management throughout the works will be through best practice methods for disposal and adherence to a Waste Management (Resource Recovery) Plan that should be prepared by the

contractor. The plan will outline methods to achieve waste prevention, maximum reuse, recycling and recovery of waste as well as providing recommendations for the management of each anticipated waste stream. The plan will include details on source segregation, storage and collection of all wastes generated during the construction phase of the proposed works. Guidance will also be provided within the plan on collection and transport of waste to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil or water resources). It is considered there will be no significant effects on the environment given the implementation of the Waste Management (Resource Recovery) Plan.

5.1.6 Pollution and Nuisances

There is potential for pollution and nuisances to arise during the construction and operation phase of the proposed scheme. The main receptors will be residents and road users.

Receptors that are, or have the potential to be, particularly sensitive to noise and/or vibration have been identified.

NOISE AND VIBRATION

There is the potential that there will be a temporary increase in noise during the proposed works. However, they will not exceed levels typical of construction works and are short-term in nature. There will be a slight increase in traffic disturbance during the construction stage of the works, however these will be short term in duration. There will be no pollution or nuisance during operations i.e. following the completion of works.

Sensitive noise receptors have been identified as largely one-off residences within the surrounds of the bridge. The location of the bridge on the outskirts of a major settlement increases the potential for noise disturbance, however, the works are expected to be short in duration and once operational, will not result in long term increases in noise.

Noise and vibration control measures will be implemented throughout the rehabilitation works. Measures will include operating hours, limiting construction to periods which will be determined by the planning authority.

Contractors will be required to comply with requirements on noise control as set out in European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations and the Safety, Health and Welfare at Work (Control of Noise at Work) as well as any conditions imposed by Kildare County Council. All plant items used during construction will comply with standards outlined in the 'Safety, Health and Welfare at Work (Control of Noise at Work) Regulations' and the 'European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations'. Reference will be made to BS 5228: Part 1: 2009 (Noise Control on Construction and Open Sites Part 1. Code of Practice for Basic Information and Procedures for Noise Control).

DUST

It is likely that dust will likely be generated during the works; however, this nuisance will be managed in line with best practice.

Measures for the management of dust during construction shall be implemented. Where appropriate, dust monitoring may be carried out near site boundaries/sensitive receptors. Trucks leaving the site will be adequately cleaned to ensure soil, mud and other site debris is prevented from spilling onto adjoining roads and footpaths. Roads and footpaths will be cleaned on a regular basis as required.

Air pollution will be limited to typical construction nuisance such as dust given the short-term nature of the works and that the works will be conducted in accordance with best practice guidance.

SEDIMENT RUNOFF

There is potential for the accidental release of pollutants into the surrounding environment including the surface and groundwater environment.

The footprint of the works will be limited and works areas will be temporarily dammed by silt fences and sandbags or other IFI approved measures. Appropriate set back distances from sensitive ecological and cultural heritage sites and the River Barrow will be maintained. The main site compound will not be located within 10 m of the river and will be located on dry land.

The employment of good practice construction methodologies will mitigate the risk of sediment runoff to the surface water network. It is particularly important that appropriate control measures are implemented at locations where streams cross or run alongside the route. These measures are set out and addressed in Section 5.3 of this report.

The appointed contractor will need to prepare a site-specific Construction Environmental Management Plan (CEMP) which will clearly set out all of the required environmental control measures needed including those identified in the NIS, including for example, an Emergency Contingency Plan for the removal of sandbags during a flood event.

ODOUR

No odour is anticipated from the construction or operation of the proposed scheme.

5.1.7 The Risk of major Accidents and/or Disasters including those caused by Climate Change

There is minimal risk of major accidents or disasters including those caused by climate change given the small-scale and temporary nature of the construction works. Any risks that are present are associated with typical construction risks including working with machinery. However, the appointed contractor will need to prepare a site-specific Construction Environmental Management Plan (CEMP) which will clearly set out all of the required environmental control measures needed.

Rehabilitation works will be carried out in accordance with the following health and safety regulations and guidelines (or as updated):

- Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2021 (S.I. No. 528 of 2021);
- Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2020 (S.I. No. 102 of 2020);
- Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2019 (S.I. No. 129 of 2019);
- Safety, Health and Welfare at Work (Construction) (Amendment) Regulations 2013 (S.I. No. 291 of 2013);
- Safety, Health & Welfare at Work (Construction) Regulations 2006 to 2013; and
- Safety, Health & Welfare at Work Act 2005.

The appointed Contractor shall be responsible for producing a Traffic Management Plan and this will mitigate risk associated with construction traffic.

5.1.8 Risks to Human Health

Nearby sensitive receptors have been considered. These have been identified as residences and local businesses located in the vicinity of the proposed scheme. As outlined above, any potential for air, odour or noise pollution during the construction phase will be temporary and localised.

Risks to water will be minimised via construction in line with best practice. Contractors will be required to implement construction methods in line with best practice such as storage of fuel and chemicals on site.

From a human health perspective, the nearest reported source protection zone (SPZs) (groundwater) is located 1.63km east of the bridge. The nearest SPZ is Monasterevin PWS.

There are a number of boreholes recorded on the GSI database within 2km of the site however their location accuracy is >2km and therefore their exact location is unknown. They date from 1899 to 1988 and are for private use.

5.1.9 Flood Risk

The bridge traverses the River Barrow north of Monasterevin, located in an area prone to flooding. A Catchment-based Flood Risk Assessment and Management (CFRAM) models flood risk adjacent to the scheme to be moderate (1-in-100-year chance of occurrence). A Strategic Flood Risk Assessment (SFRA) which was prepared in support of the Kildare County Development Plan (2023-2029) indicates a flood risk area on the flatlands upstream of Pass Bridge (Figure 44 below).

Figure 4: Aerial photograph of the bridge location following a 2008 flood event (OPW)

The rehabilitation works will be undertaken almost entirely within the existing footprint. The works will not result in an increase of hardstand that will increase the potential for flood risk elsewhere or within the site. The works will not impact on the hydraulic capacity of the bridge nor change the hydraulic regime.

5.2 Location of the Proposed Works

The setting and location of the proposed works was determined based on a review of the following information sources:

- Historical Ordnance Survey of Ireland (OSI) maps (Tailte Éireann) and National Monuments Service (NMS) viewer
- A review of information held by the Environmental Protection Agency (EPA) EPAMaps online Mapping
- Aerial images available of the site (OSI and Google)
- The Geological Survey of Ireland (GSI) online mapping tools
- The National Parks and Wildlife Service online map tool.
- The Office of Public Works (OPW) flood mapping website www.floodinfo.ie

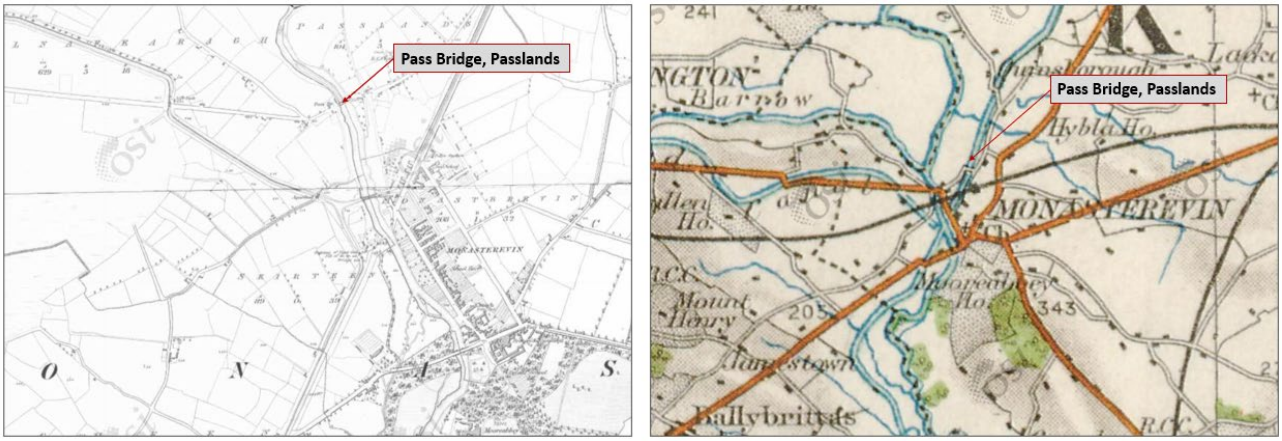
The bridge is located on the northern outskirts of Monasterevin Town, with surrounding lands typically agricultural and residential in nature. The bridge site and surrounds is bordered by the R424, a network of local roads, the Dublin-Cork railway line, and the Grand Canal. Farmland surrounds the site to the north and east, while the area to the west is a mixture of farmland and wetland. The adjacent land uses are listed in Table 6 below.

Table 6: Land use in the area of the bridge

Boundary	Land use
North	Regional and local road network, extensive farmland and one-off residential dwellings
South	The urban townland of Monasterevin, characterised by dense residential areas, commercial, retail, educational, healthcare and recreational facilities. The Dublin-Cork railway line runs east-west through the town, south of the bridge location, and the M7 runs in a similar direction, south of the town.
East	Residential/farmland mixed area in the east, between Monasterevin and Kildare town.
West	Farmland to the west and depositing/lowland river habitats along the Barrow. Small area of wetland approx. 1km west of Pass bridge.

The site has not seen many significant changes in land use over time. The 6” historical map (1837-1842) shows the bridge and the surrounding areas of residential, forested areas and farmlands (refer to Figure 5).

Figure 5: Approximate location of the proposed rehabilitation on 1829-1929 6-inch OS Map (left) and 1888-1913 25 Inch OS Map (Source: Ordnance Survey Ireland).



Very little change occurred within the proximity of the site throughout the 1800's until the in the latest aerial images, where more residential and industrial development occurred. Refer to Figure 5 above.

5.2.1 The existing and approved land use

The proposed scheme is located on the northern extent of Monasterevin, Co. Kildare. The area falls within the remit of the Kildare County Development Plan (2023-2029), while Monasterevin is subject to its own Local Area Plan, to be published in 2025. Land Use Zoning Objectives set out in the interim LAP for Monasterevin do not extend beyond Pass Bridge. However, land at the intersection between the bridge and the canal is zoned as 'Open Space and Amenity' and as 'Agricultural'. Closer to the town but still bordering the Grand Canal, land is zoned for 'New Residential', with the addition of footpath/cycle paths proximate to the bridge.

Monasterevin Local Area Plan will be published in 2025, and land use zoning objectives will be revised as appropriate.

5.2.2 The relative abundance, availability, quality and regenerative capacity of natural resources in the area and its underground

Limited natural resources will be required to complete the works. It is proposed that material generated during the works is reused on site, where possible. The relevant natural resources have been looked at in more detail in the following sections.

LAND AND SOIL

The regional topography of the area is generally quite varied in elevations with the River Barrow carving a small valley through the area via a network of meanders in the river course.

Geological Survey Ireland indicates the bedrock underlying Monasterevin town consists of thick-bedded limestone of the Allenwood Formation. The Allenwood Formation consists of pale-grey massive shelf limestones and dolomite. Pass Bridge is located on the border between this formation and the Lucan Formation, which consists of dark argillaceous and cherty limestone and shale. Both formations originate in the Carboniferous.

According to the Teagasc Soil Information System, the topsoil and subsoil beneath the site has been classified as Alluvium (mineral origin) and peaty poorly drained mineral. This is expected given the nature of the site consisting of the floodplain of the River Barrow itself. The topsoil of the surrounding area consists of a number of various soil type, including surface water and groundwater gleys to the southwest, grey brown Podzolics and brown earths to the northwest, and Renzinas and lithosols to

the east. Topsoil south of the site is made ground, and CORINE (Coordination of Information on the Environment) Land Cover categorises the area south of Pass Bridge as continuous urban fabric. Surrounding the bridge itself, CORINE indicates that the area is predominantly heterogeneous agriculture.

The primary Groundwater Body (GWB) groundwater aquifer beneath the site is classified as Locally Important – Bedrock which moderately productive only in local zones. Directly south of the bridge location, the aquifer is Karstified and is regionally important. The bedrock aquifer directly underlying the scheme is composed of Dinantian Upper Impure Limestones, while the area directly south is composed of Dinantian Pure Bedded Limestones.

The impact of the proposed project on the aquifers beneath the site will be negligible. The proposed works will not alter or impede groundwater flow as the proposed project does not include a deep excavation or drilling to impact the aquifer beneath.

WATER

The River Barrow is the primary hydrological feature in the area. The Barrow is the second longest river in Ireland, extending to 192km through counties Laois, Kildare, Kilkenny, Carlow, Wexford and Waterford. The Barrow Catchment (WFD Code: 14) drains a total area of 3,025km^2, including all streams entering tidal waters between Great Island and Ringwood, Co. Kilkenny.

Pass Bridge is located north of the town of Monasterevin in County Kildare. The confluence of the Barrow with the Figile River is approximately 400m north of Pass Bridge. The Grand Canal Barrow Line crosses the Barrow approx. 370m from Pass Bridge.

The EPA monitor biological water quality in this stretch of the River Barrow with a station located on Pass Bridge (Station Code S14BO11000). This site was rated as being Q3-4 (Moderate) in 2017. The Monasterevin Wastewater Treatment Plant is located on the right bank of the river, approx. 1km downstream of Pass Bridge.

Rehabilitation proposals include the reinstatement of pier cutwater to its original geometry and vegetation removal will be required throughout the project. The project could pose a moderate potential impact to both the status and risk status of the watercourse underfoot of the bridge, during the construction phase and also for a period of time following completion. Potential impacts are discussed in Section below.

The site is located within the floodplain of the River Barrow.

BIODIVERSITY

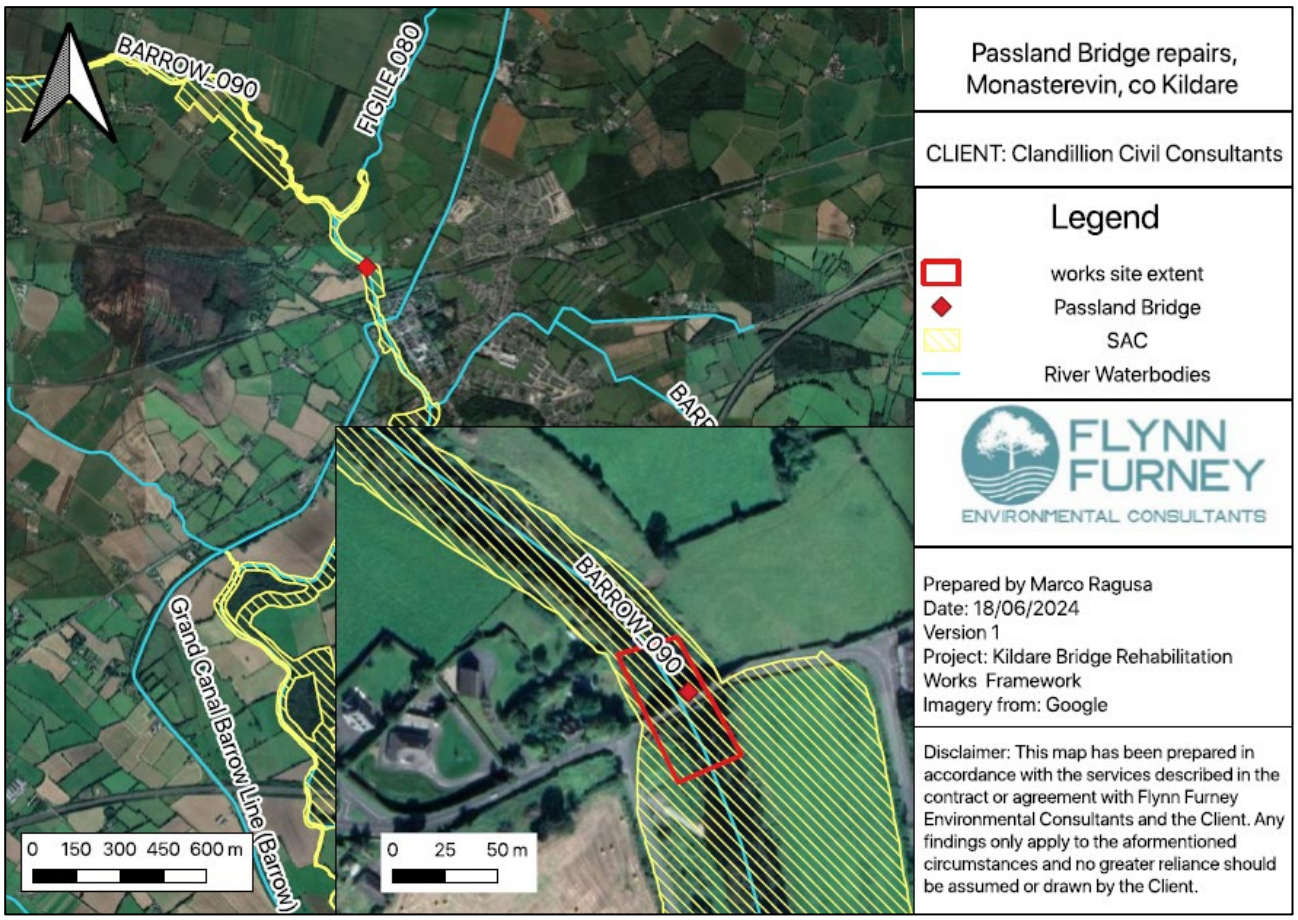
The Stage 1 Appropriate Assessment for the proposed works (Appendix B) stated that the project would have a significant effect on European Designated Sites and concluded that a Natura Impact Statement (NIS) must be undertaken. An NIS has been completed by Flynn Furney Ecological Consultants (2024) and can be found in Appendix C.

Pass Bridge is located within the River Barrow and River Nore SAC (site code: 002162). Table 7 below summarises the Qualifying Interests of the Designated Sites adjacent to the bridge.

Table 7: Qualifying Interests of the River Barrow and River Nore SAC, located within the site location.

Site Name and Code	Qualifying Interests	Distance from Scheme
River Barrow and River Nore SAC (002162)	• Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Reefs [1170] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] • European dry heaths [4030] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Petrifying springs with tufa formation (Cratoneurion) [7220] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] • Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016] • Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] • Austropotamobius pallipes (White-clawed Crayfish) [1092] • Petromyzon marinus (Sea Lamprey) [1095] • Lampetra planeri (Brook Lamprey) [1096] • Lampetra fluviatilis (River Lamprey) [1099] • Alosa fallax fallax (Twaite Shad) [1103] • Salmo salar (Salmon) [1106] • Lutra lutra (Otter) [1355] • Trichomanes speciosum (Killarney Fern) [1421]	0m

Figure 6: SAC & SPA Locations (FFEC, 2024)



The NIS produced by Flynn Furney Ecological Consultants (Appendix C) concluded that

"Based on the assessment of the proposed development alone and in combination with other projects and plans, including the implementation of mitigation measures, it can be concluded that no adverse effects on the sites integrity will arise in view of the sites conservation objectives"

Strict water quality protection measures (outlined in Section 5.3) will be implemented throughout the project to mitigate impacts on all aquatic Annex II species in the affected area, including Atlantic Salmon, Otter, Lamprey. White-clawed crayfish may be present downstream but were not present at the site; it is known that crayfish plague is present in the River Barrow. The only Annex I habitat that may be affected by the proposed works is Floating River Vegetation, which although is not present at the site, may be present downstream and therefore could be impacted by water quality.

Habitats in the surrounds of the scheme, following Fossitt's Habitat Guide (2000), were identified and categorised as follows:

- Depositing/Lowland Rivers (FW2)
- Canals (FW3)
- Improved agricultural grassland (GA1)
- Hedgerow (WL1)
- Stone walls and other stonework (BL1)

There are no records of terrestrial mammals or mammal refugia directly at the site location, according to the National Biodiversity Data Centre mapping tool. There have been sightings of the Greater White-toothed Shrew (*Crocidura russula*) along the canal, northeast of Pass Bridge, and in green

spaces within Monasterevin town. This species of shrew is invasive in Ireland and adversely impacts on native shrew species, such as the Pygmy shrew. The records of shrew are at sufficient distance from the site and there is no risk of spreading of the species. There are no other records of invasive species in proximity to the bridge.

The Crayfish Plague was highlighted as a potential issue in an AA screening and NIS produced for this project. Measures outlined in Section 5.3 below address the potential impact of the project on the spread of the disease.

There have been sightings of a number of bird species within 2km of the site, including Yellowhammer (*Emberiza citrinella*), Grey Wagtail (*Motacilla cinerea*) and Common Buzzard (*Buteo buteo*). Given the location of the bridge adjacent to a trafficked road, and on the outskirts of an urban settlement, a bird survey was not deemed necessary. It must be noted that all birds are awarded protection in Ireland under the Wildlife Acts (1976, 2000 as amended). Any vegetation clearance to accommodate works is not permitted outside of the breeding season (March – August, inclusive).

5.2.3 The absorption capacity of the natural environment

The absorption capacity of the natural environment has, in accordance with Regulations, been screened paying particular attention to the following:

a) wetlands, riparian areas, river mouths;

b) coastal zones and the marine environment;

c) mountain and forest areas;

d) nature reserves and parks;

e) areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;

f) areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;

g) densely populated areas; and

h) landscapes and sites of historical, cultural or archaeological significance.

The project will be mainly confined to works to the site, located in a semi-urbanised/agricultural landscape which would generally be considered as a robust environment in terms of its absorption capacity.

WETLANDS, RIPARIAN AREAS, RIVER MOUTHS

There are no Ramsar sites adjacent to the bridge.

There is low-lying riparian vegetation on the banks of the watercourse, upstream and downstream of Pass Bridge. Species present include common reed (*Phragmites australis*), Greater Tussock-sedge (*Carex paniculata*) and reed sweet grass (*Glyceria maxima*). Vegetation on the embankments will not be removed to accommodate works. Vegetation impeding on the bridges structural integrity will be removed. The impact on riparian vegetation will therefore be limited to immediate site.

There are no river mouths proximate to the scheme that have the potential to be impacted by the proposed works.

The proposed works is for the rehabilitation of an existing bridge structure and largely involves the repointing of arches and the filling of cracks. In this regard, additional run-off as a result of the works is not foreseen and there is no potential for surface water contamination following the rehabilitation works.

Appropriate mitigation measures are outlined in Section 5.3.

COASTAL ZONES AND THE MARINE ENVIRONMENT

The River Barrow, running underfoot of Pass Bridge, drains into the Celtic Sea at Waterford harbour, Co. Waterford, approx. 130km downstream of the proposed site.

Table 8: Waterbodies downstream of the bridge site.

Waterbody	Type	Quality Status	Risk Status
River Barrow	River	Poor	At Risk
Barrow Suir Nore Estuary	Transitional	Moderate	At Risk
Waterford Harbour	Transitional	Moderate	At Risk
Celtic Sea	Coastal	High	Not at Risk

The proposed works is for the rehabilitation of an existing bridge structure. Works will largely involve the repointing and filling of cracks, and thus, there is minimal potential for surface water contamination during operation. measures are outlined in Section 5.3.

Mountain and forest areas

There are no mountain or forest areas affected by the proposed scheme.

Nature reserves and parks

There are no nature reserves or parks in proximity to the proposed scheme.

Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive

The Appropriate Assessment (AA) Screening Process was completed for the proposed scheme. The screening process, carried out by Flynn Furney Environmental Consultants, concluded that there is potential for there to be Likely Significant Effects (LSE's) on any Natura 2000 sites. The AA screening was informed by an extensive desktop survey and a field survey. The screening conclusions were as follows:

"The proposed development would have a significant effect on European Designated Sites and progression to a Stage II Appropriate Assessment is required."

DENSELY POPULATED AREAS

Census 2022 have recently released updated information including population snapshots for areas which can be categorised by Electoral District, Town, County or Small Area. The proposed scheme is located on the outer extent of Monasterevin town. The population density in an approximate 2km radius around the centre point of the scheme is 6,482.

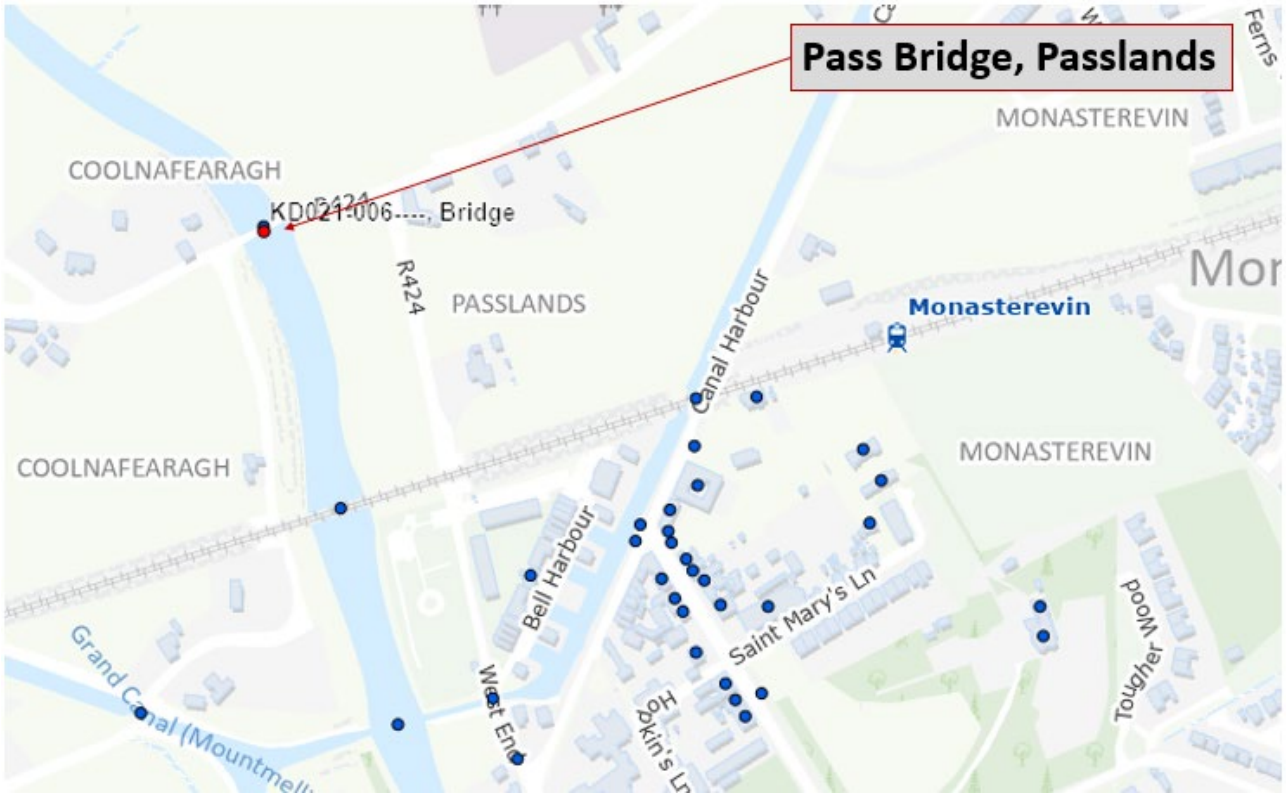
LANDSCAPES AND SITES OF HISTORICAL, CULTURAL OR ARCHAEOLOGICAL SIGNIFICANCE

Pass Bridge is both a Protected Structure (B21-02 in Appendix 6 of the Kildare County Development Plan 2023–2029) and a recorded archaeological monument (RMP KD021-006----), and it is listed in

the National Inventory of Architectural Heritage (NIAH Reg. No. 11816100) as being of Regional significance. Structures with a Regional Rating are those that make a significant contribution to the architectural heritage of their region. They also bear comparison with similar structures in other regions in Ireland. Increasingly, structures that warrant protection make a significant contribution to the architectural heritage of their locality. The River Barrow and Nore are also a Special Area of Conservation (SAC-002162), a Natura 2000 site established under the EU Habitats Directive (European Directive 92/43/EEC).

The bridge is located on the northern extent of Monasterevin. Other protected structures adjacent to the bridge are located in Monasterevin to the east and to the southeast of the site. These should not see effects due to the nature of the proposed works.

Figure 7: Protected Sites and structures in the locality of Pass Bridge.



The proposed works will involve rehabilitation of a protected structure, Pass Bridge, listed in the National Inventory of Architectural Heritage.

5.3 Types and Characteristics of Potential Impacts

5.3.1 The magnitude and spatial extent of impact

This project relates to rehabilitation works to Pass Bridge, Monasterevin, County Kildare which is a protected structure. An architectural and cultural heritage assessment was completed in respect of the proposed works (Appendix A).

Primary concerns pertain to the architectural significance for the bridge as a listed structure in national databases. Nonetheless, the works required will be confined to the immediate bridge site with an adjacent site compound. The bridge is not located within the Monasterevin Architectural Conservation Area (ACA).

Impacts are not predicted downstream of the site.

As Pass Bridge is located within a Special Area of Conservation (SAC), the project was screened for Appropriate Assessment (Appendix B). The screening report recommended that the project be subject to Appropriate Assessment (AA) and a Natura Impact Statement (NIS) was prepared (Appendix C). Rehabilitation measures identified in the NIS shall be included in the CEMP and completed during the site works. It was determined that no residual impact will remain following the completion of works, and, with the implementation of mitigation measures, there will be no adverse effects on the integrity of the environment surrounding the bridge.

5.3.2 The Nature of the Impact

This project relates to bridge rehabilitation works, a relatively minor project in magnitude and extent. Any potential impacts are not likely to be significant.

POPULATION AND HUMAN HEALTH

During the construction phase of the works it is likely that nearby sensitive receptors (residential, agriculture and road users) will be affected by noise and visual impacts.

However, given the nature and scale of the works coupled with the implementation of mitigation measures during construction as outlined within a Contractors CEMP, the risks to human health is considered low. No significant negative effects are considered likely to occur as a result of the construction of the proposed scheme.

LANDSCAPE AND VISUAL

It is anticipated that some potential minor localised landscape and visual effects may result from the implementation of the proposed works. During the construction phase, effects will arise due to works which are likely to involve moving machines and construction works.

The proposed works will not require land take and there will be no modification of the existing landscape. In landscape and visual terms, it is anticipated that potential effects will be limited to the immediate surroundings and occur during the construction phase only without impacting on the wider landscape. As a remediation project it is not anticipated that there will be any alteration to the landscape character.

Due to the location, nature, and size of the proposed scheme, no impacts are expected to result on scenic views including RB6 (view along the Barrow)and prospects of places of natural beauty or interest located in the surrounding environs as a consequence of the activities of the construction phase or during the operational phase.

MATERIAL ASSETS

No buildings except for the bridge structure are located within the footprint of the proposed scheme; therefore, there will be no requirement for significant demolition works. No significant effects are anticipated as a result of the realignment, addition, or replacement of services and utilities during the construction phases of the project. The EPA monitor biological water quality along the River Barrow with a station located at Pass Bridge (Station Code S14BO11000). This site was rated as being Q3-4 (Moderate) in 2017. The Monasterevin Wastewater Treatment Plant is located on the right bank of the river, approx. 1km downstream of Pass Bridge.

LAND AND SOILS

The extent of potential impacts to land and soils will be limited to the immediate receiving environment of the proposed works. The proposed works will avoid demolition and will rehabilitate the existing structure.

Site clearance during the construction phase may impact on soils around the structure. Underlying soils and aquifer could be at risk of contamination from accidental spillages of oils and chemicals. To reduce this risk, use of appropriate secondary containment for the storage of fuels, oils, paints and other potentially hazardous materials on the site during the construction phase will be required.

A Resource Management Plan (RMP) should be prepared by the contractor outlining methods to achieve waste prevention, maximum reuse, recycling and recovery of waste and provides recommendations for the management of the various anticipated waste streams. It will include source segregation, storage and collection of any/all wastes generated during the course of the construction phase of the proposed scheme. The RMP will provide guidance on collection and transport of waste to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil or water resources). It is considered there will be no significant effects on the environment given the implementation of the RMP.

Best practice construction techniques, and adherence to the standard construction mitigation measures outlined below, will prevent sediment/pollutant releases during the construction phase.

Where appropriate, secondary containment for the storage of fuels, oils, paints and other potentially hazardous materials on the site will be provided. Fuelling of plant is anticipated to be in a designated fuelling area within the site compound.

With the inclusion of the above mitigation, any residual impacts are temporary, and no significant effects are anticipated on soils or groundwater from the construction or operation of the proposed works.

WATER AND HYDROLOGY

The potential for spillage or the accidental release of pollutants into the watercourse is possible. Mitigation measures are outlined below:

- Materials and equipment to implement the Spill Response and Control Plan (for example, spill kits and booms) must be available adjacent to the watercourse. These should be clearly marked response points that can be accessed by all staff.
- Any diesel or fuel oils stored on site must be bound to 110% of the capacity of the storage tank. Fuel tank design and installation must follow best practice guidelines BPGCS005, oil storage guidelines
- Drip trays will be utilised on-site for pumps and equipment situated within 25m of the watercourse, and spill kits will be disposed of using a hazardous waste disposal contractor and in accordance with all relevant EU and Irish waste management legislation
- No storage of equipment should take place within 15m of the river
- All hazardous substances on-site shall be controlled within an enclosed storage compound that shall be locked when not in use to prevent theft and vandalism
- No refuelling should occur within 25m of the river
- Concrete mixing will not occur within 25m of the river
- No washings or waste materials of any kind can be directed into the nearby drains or into the river (including concrete washout)
- No stockpiling of excavated material should take place anywhere on site, given the steeply sloping nature of the banks. All excavated material should be removed from the site immediately
- All excavation equipment should be in good working order

BIODIVERSITY

Mitigation measures set out in the NIS prepared by qualified ecologists at Flynn Furney Ecological Consultancy should be put in place to avoid any impact on the integrity of the local and regional ecology, and also on Natura 2000 Sites within and downstream of the site of works. Some of these mitigation measures largely pertain to the release of pollutants into the stream network. Additional measures are as follows;

Any area of exposed soil left after the works are completed should be replaced with an appropriate native hedge row species at the end of the project. Vegetation is not permitted during breeding season (March – August, inclusive).

To control the spread of the Crayfish Plague, the following measures are to be followed:

- All equipment must be thoroughly cleaned and disinfected, including boots, fishing gear, and boats. Use appropriate disinfectants such as Virkon Aquatic or a bleach solution (2%)
- Ensure all equipment is dried completely for at least 48 hours before being used in a different water body.
- Do not transfer water, plants, or animals between water bodies. Always empty and clean bait buckets and containers away from any water sources.
- Check, Clean, Dry Campaign – follow the 'Check, Clean, Dry' steps:
  - Check: Remove any visible plants, mud or animals from equipment and clothing
  - Clean: Wash equipment thoroughly, paying special attention to crevices
  - Dry: Dry everything for as long as possible

NOISE AND VIBRATION

In terms of noise, the construction phase may lead to a temporary increase in background noise levels through operation of plant machinery.

Mitigation measures are outlined below.

Measures will include operating hours, limiting construction to agreed daytime periods. No work shall be planned for outside the agreed hours including weekend or Public Holidays. Working hours will be decided in conjunction with the local council.

Adherence to noise and vibration limits will be required at all times during the construction phase of the proposed scheme. It is recommended that a Contractors CEMP be produced for the proposed scheme. Noise and vibration limits will be outlined within the Contractors CEMP which will also include any other mitigation measures required to reduce any potential impacts and associated effects of noise and vibration on sensitive receptors, such as those described in the NRA's 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (NRA, 2014).

The Contractor shall employ the best practical means to minimise noise produced by his activities and shall comply with the contents and recommendations of BS 5228: Code of Practice for Noise Control on Construction and Open Sites and European Communities (Construction Plant and Equipment) Permissible Noise Regulations 1988.

With the inclusion of the above mitigation, any residual impacts are temporary, and no significant effects are anticipated on noise from the construction or operation of the proposed works.

AIR QUALITY AND CLIMATE

The main air quality impacts will be associated with construction works. Fugitive emissions of airborne particulate matter are readily produced through the action of abrasive forces on materials

and therefore a wide range of site preparation and construction activities have the potential to generate this type of emission, including:

- Land clearing;
- Earthworks;
- Equipment movements and materials transport;
- Vehicular transport;
- Construction activities; and

It is anticipated the Contractor will comply with all relevant environmental legislation, published standards, accepted industry practice, national guidelines, and codes of practice appropriate to the proposed scheme during the construction phase. The implementation of appropriate mitigation measures and best practice measures will reduce the generation of dust during this phase. With the adoption of these measures, it is anticipated that the dust produced would not cause a significant effect on the environment. Due to proximity to potentially sensitive receptors such as waterbodies, ecologically sensitive sites and residential areas, further consultation should be undertaken by the contractor prior to any construction works to identify whether additional mitigation measures are required.

Climatic impacts are expected to arise from minor emissions of GHG to the atmosphere from equipment and vehicular movements and the operation of site construction equipment. No significant negative effects in relation to climate are considered likely to occur given the size and scale of the proposed bridge works.

CULTURAL HERITAGE

Pass Bridge is set within a semi-urban landscape, on the outskirts of a town where there are a number of protected sites and structures. The area has undergone previous development which will have impacted any sub-surface archaeological remains which may have been present.

The proposed works are to be carried out on a protected structure (RPS site) and mitigation is required to ensure that the works are compliant with legislation and protection measures already in place.

All work should be completed in accordance with conservation best practice guidelines. If there is any ground disturbance to any of the areas adjacent the bridge this may require monitoring by a suitably qualified archaeologist working under licence from the Department of Housing, Local Government and Heritage. Should any archaeological features be exposed, further mitigation may be sought by the National Monuments Service.

5.3.3 The Transboundary Nature of the Impact

There is no potential for transboundary impacts.

5.3.4 The Intensity and Complexity of the Impact

The project involves rehabilitation works to an existing bridge. A small area is affected as part of the works and any potential impacts are not likely to be significant.

5.3.5 The Probability of the Impact

The area affected will be to the embankment growth/vegetation removal and associated river channel works. The probability of impacts on the receiving environment has been assessed and is

considered to be low. Localised impacts such as dust generation, noise nuisance and temporary traffic management during the proposed works are probable but these will cause a temporary impact.

The probability of impacts is low taking into account the following considerations:

- A project specific method statement will be prepared by the appointed contractor prior to the commencement of works, detailing how it will incorporate and comply the mitigation measures set out in the NIS (Appendix C).
- The contractor will be required to implement a Health and Safety Plan to ensure no risks to the population working on or adjacent to the site during the construction phase.
- Mitigation measures outlined in Section 5.3 will be strictly adhered to, and will reduce the probability of the impact.

5.3.6 Expected Onset, Duration, Frequency and Reversibility of the Impact

A small area will be affected by the proposed worked, namely the bridge subject to the works. Any impacts are limited to the rehabilitation works identified. The duration will be outside of sensitive ecological seasons and it is anticipated that works will be completed within a short timeframe. The works will be permanent.

5.3.7 The Cumulation of the Impact with the Impacts of other Existing and/or Future Developments

There are no cumulative impacts arising from this project based on a review of planning.

5.3.8 The Possibility of Effectively Reducing the Impact

A CEMP will be prepared by the appointed contractor taking into account all of the site details and required mitigation measures, regarding the environmental and ecological protection parameters.

Potential exists, particularly at the construction stage for an amount of nuisance associated with localised traffic disruption and construction noise and dust. However, for the most part construction works related to this project are likely to be low impact and temporary.

Mitigation measures outlined in Section 5.3 will be strictly adhered to and will increase the possibility of effectively reducing any impacts.

6. EIA Screening Conclusions

This EIA Screening Report has been completed to provide Kildare County Council as the competent authority, with the supporting information to allow a determination to be made on whether the proposed scheme is likely to have significant effects on the environment or not.

This Report provides an assessment of whether the development would or would not be likely to have significant effects on the environment by addressing the criteria and information set out in Annex III and IIA of the EIA Directive and Schedules 7 and 7A of the Planning and Development Regulations 2001 (as amended).

The Report has concluded that the proposed scheme would not be likely to have significant effects on the environment for the following reasons:

- the nature and scale of the proposed scheme, which is not a development type listed in Schedule 5 Part 1 or 2;
- the rehabilitation works will be confined to the immediate site and will not have downstream impacts
- appropriate mitigation measures have been proposed and in addition, a CEMP and Resource Recovery Plan will be prepared which will prevent /minimise impacts on the environment.

This Environmental Impact Assessment Screening Report therefore concludes that the proposed rehabilitation works on Pass Bridge, Monasterevin, when taken individually and cumulatively with associated existing and approved development, will not result in the potential for significant impacts to arise on the environmental receptors as a result of the proposed scheme. As such it is concluded that the preparation and submission of an EIAR is not required.

CLANDILLON
CIVIL CONSULTING

EIA Screening Report

APPENDIX A - ARCHITECTURAL AND CULTURAL HERITAGE ASSESSMENT

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Architectural Impact Assessment Report Pass Bridge Rehabilitation Works, Monasterevin, Co. Kildare

Ian Russell
September 2024

Report Status: Final

ACSU Ref.: 24138

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PROJECT DETAILS

Project	Pass Bridge Rehabilitation Project, Monasterevin, Co. Kildare
Report Type	Architectural Impact Assessment
Townland(s)	Coolnafearagh, Passlands
RPS No.	B21-02
NIAH Reg. No.	11816100
RMP/SMR No.	KD021-006----
ITM Ref.	662185, 711037
Consultant	Archaeological Consultancy Services Unit, 21 Boyne Business Park, Greenhills, Drogheda, County Louth
Archaeologist	Ian Russell
Report Author(s)	Ian Russell
Report Status	Final
Report Date	September 2024
ACSU Ref.	23138

VERSION CONTROL

Revision	Date	Description	Status	Author	Reviewed	Approved
1.0	30.08.2024	Architectural Impact Assessment	Final	I.R.	K.C.	D.M.
1.1	14.10.2024	Architectural Impact Assessment	Final	I.R.	K.C.	D.M.

NON-TECHNICAL SUMMARY

This report details the results of an Architectural Impact Assessment of Pass Bridge, Monasterevin, Co. Kildare (ITM 662185, 711037). This five-arch masonry bridge, also known as Ballagh Bridge and previously Essex Bridge, carries a minor road, the R424, over the River Barrow north of Monasterevin. It was built c. 1750 of roughly coursed, undressed limestone blocks, and is the earliest surviving bridge in the locality of Monasterevin.

The proposed rehabilitation and remediation works to the bridge will include vegetation clearance from the parapets, spandrels and carriageway verges, some repointing and mortar repairs where there are localised masonry defects and cracking, reconstruction of a missing section of parapet coping and repair to a cracked cut-water and a collapsed abutment at the west side of the north face.

Pass Bridge is included in both the *Record of Protected Structures* (B21-02 in Appendix 6 of the *Kildare County Development Plan 2023–2029*) and the *Record of Monuments and Places* (RMP KD021-006----) and is therefore protected by both the National Monuments Acts 1930–2014 and the Planning and Development Acts 2000 (as amended). This report was prepared as part of a planning application to An Board Pleanála pursuant to Section 177 (appropriate assessment of local authority development) of the Planning and Development Act, 2000, as amended.

All work should be completed in accordance with conservation best practice guidelines. If there is any ground disturbance to any of the areas adjacent the bridge this may require monitoring by a suitably qualified archaeologist working under licence from the Department of Housing, Local Government and Heritage. Should any archaeological features be exposed, further mitigation may be sought by the National Monuments Service.

CONTENTS

List of Figures

List of Plates

1. INTRODUCTION

This report details the results of an Architectural Impact Assessment of Pass Bridge, Monasterevin, Co. Kildare (Figures 1–2, ITM 662185, 711037). The assessment was carried out by Ian Russell of Archaeological Consultancy Services Unit Ltd (ACSU) on behalf of Clandillon Civil Consulting, Naas, Co. Kildare in September 2024.

Pass Bridge, also known as Ballagh Bridge and previously Essex Bridge, is a five-arch masonry bridge that carries a minor road, the R424, over the River Barrow north of Monasterevin. It was built c. 1750 of roughly coursed, undressed limestone blocks, and is the earliest surviving bridge in the locality of Monasterevin.

The development consists of rehabilitation and remediation works to the bridge, which is on both the *Record of Protected Structures* (RPS) and the *Record of Monuments and Places* (RMP) and is therefore protected by both the National Monuments Acts 1930–2014 and the Planning and Development Acts 2000 (as amended). The proposed works include vegetation clearance from the parapets, spandrels and carriageway verges, some repointing and mortar repairs where there are localised masonry defects and cracking, reconstruction of a missing section of parapet coping and repair to a cracked cut-water and a collapsed abutment.

This assessment provides a comprehensive written and illustrated record of Pass Bridge, including a general history of the bridge, a description of its setting, details of the footprint of the bridge at water level (e.g. piers and abutments) and road level (e.g. parapets, approach walls), and a rectified photographic survey of the bridge, including upstream and downstream elevations. It was prepared as part of a planning application to An Board Pleanála pursuant to Section 177 (appropriate assessment of local authority development) of the Planning and Development Act, 2000, as amended.

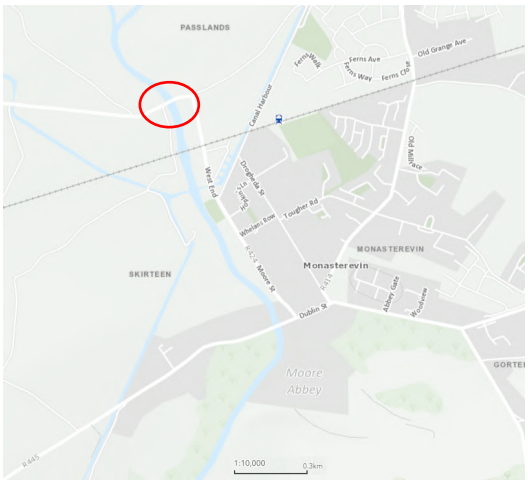

Figure 1: Location of Pass Bridge (© Tailte Éireann)

Figure 2: Location of Pass Bridge on north side of Monasterevin town (2022 Google Earth aerial image)

2. THE DEVELOPMENT

It is proposed to conduct rehabilitation and remediation works to the bridge as part of Kildare County Council's annual bridge programme. The following is a summary of the defects and proposed rehabilitations:

Defects	Rehabilitations
1. Permeable soft verges on both sides of the carriageway pavement	1. Raised rubbing strips to replace the soft verges
2. Vegetation growth- parapets, spandrels	2. Vegetation clearance
3. Localised areas of masonry defects- missing pointing, loose stones	3. Repointing path repairs with NHL mortar in accordance with series 2400 for Historical Structure
4. Cutwater damage- missing section of parapet coping and diagonal cracking in cutwater	4. Masonry reconstruction of the cracked cutwater section and the parapet coping.
5. Longitudinal cracking in the arches	5. Monitoring- installation of crack gauges
6. Undermined and collapsed abutment – flood relief span	6. Masonry reconstruction
7. Parapet cracks in concrete coping	7. Local crack repairs with repair mortar

3. STATUTORY PROTECTION

Pass Bridge is both a Protected Structure (B21-02 in Appendix 6 of the *Kildare County Development Plan 2023–2029*) and a recorded archaeological monument (RMP KD021-006----), and it is listed in the *National Inventory of Architectural Heritage* (NIAH Reg. No. 11816100) as being of Regional significance. Structures with a Regional Rating are those that make a significant contribution to the architectural heritage of their region. They also bear comparison with similar structures in other regions in Ireland. Increasingly, structures that warrant protection make a significant contribution to the architectural heritage of their locality. The River Barrow and Nore are also a Special Area of Conservation (SAC-002162), a Natura 2000 site established under the EU Habitats Directive (European Directive 92/43/EEC).

The *Record of Monuments and Places* (RMP) is compiled and updated by the National Monuments Service and the National Historic Properties Service. The RMP is comprised of manuals that list all known archaeological sites and monuments in a county with accompanying maps (based on Ordnance Survey (OS) six-inch maps) locating these sites. All sites included in the RMP are protected under the National Monuments Acts (1930–2014). They are depicted on the National Monuments Service database (Historic Environment Viewer) as dots surrounded by a zone (Figure 3). The zones, referred to as a 'zone of notification', do not define the exact extent of the monuments but rather are intended to identify them for the purposes of notification under

Section 12 of the National Monuments (Amendment) Act 1994, which requires two months written notice of proposals to carry out works at or in relation to an RMP.

Figure 3: Zone of Notification around RMP KD021-006----, Pass Bridge (© Tailte Éireann)

The NIAH identifies, records, and evaluates the post-1700 architecture of Ireland in order to protect and conserve our built heritage. It is under the administration of the Department of Housing, Local Government and Heritage. Under Section 53 of the Planning and Development Act 2000, all sites in the NIAH Building Survey are recommended by the Minister to the elected members of the relevant local authority for their consideration for inclusion on the Record of Protected Structures (RPS). Under Section 10 of the Planning and Development Act 2000, as amended, every local authority in Ireland must keep an RPS in their development plans. A Protected Structure is a structure that a planning authority thinks is of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social, or technical point of view. The structure is recognised as important and is protected from harm under legislation contained in Part IV of the Planning and Development Act 2000. The main way that historic urban sites are protected is therefore through inclusion in the RPS (Section 51) and/or within an Architectural Conservation Area or ACA (Section 81). Pass Bridge is not within the Monasterevin ACA. Under Section 57, work on a protected structure requires the submission of a written request to the Planning Authority to issue a declaration as to the type of works which it considers would or would not materially affect the character of the structure or any element of the structure, thereby clarifying which works would be considered exempted development and those which would require planning permission.

Pass Bridge also lies within the administrative functional area of Kildare County Council where development is guided by the provisions of the *Kildare County Development Plan 2023–2029*. Detailed policies for the protection of archaeological and architectural heritage area are set out in Chapter 11: Built Cultural Heritage. The *Monasterevin Local Area Plan 2016–2022* also sets out in greater detail the Council's requirements for new

development within the overall framework of the County Development Plan, including the core strategy and other overarching policies and development management objectives and standards. The plan also seeks to protect and enhance the unique architectural and natural heritage of the town including the River Barrow Special Area of Conservation (cSAC), the Grand Canal Heritage Area (pNHA) and Moore Abbey Demesne, with an emphasis on the retention of the industrial architecture associated with the waterways to ensure the character of the town remains intact.

4. HISTORICAL BACKGROUND

4.1 Monasterevin

The town of Monasterevin is situated on the east bank of the River Barrow and includes the Barrow Line canal, a branch of the Grand Canal. Monasterevin derives its name from *Mainister Eimhím*, the fifth/sixth-century monastery founded by St Emin or Evin at 'Rosglas na Muimneach' (Gwynn and Hadcock 1970, 398). The Countess of Drogheda recorded that '… the old Yew Tree Cemetery [in Clogheen townland to the far north of Monasterevin town, was] where there was once a branch of St. Evin's Monastery, and here was kept for long afterwards St. Evin's bell as a swearing relic' (SMR file). The original monastery likely fell during the Viking raids in the ninth and tenth centuries and no visible surface trace survives. Other hints at early medieval occupation of the surrounding lands include a possible ringfort or rath (LA005-009----) on the west bank of the Black River, a tributary of the Barrow, c. 500m north of Pass Bridge in the townland of Inchacooly in County Laois, while an enclosure (KD026-015----) just over 1km to the southwest of the bridge in the townland of Clogheen may represent a similar site (SMR files).

Sometime between AD 1177 and 1181, Dermot O'Dempsey, chief of Clanmalier and Lord Of Offlay, founded the subsequent Cistercian Abbey of Rosglass, probably on the same site as the earlier monastery. It soon became known as the Cistercian Abbey of Rosglas or 'de Rosea Vallis', dedicated to SS Mary and Benedict (Gwynn and Hadcock 1970, 142). No trace of that abbey survives either, although some of its foundations and/or stone fabric may have been incorporated into the present Moore Abbey House (SMR file).

With the sixteenth-century Dissolution of the Monasteries, the Abbey and its possessions were granted to George Lord Audley, who assigned it to Adam Loftus, Viscount of Ely. With the marriage of Jane Loftus, daughter of Arthur Loftus, the third Viscount Loftus of Ely, to Charles Lord Moore, son of Henry Hamilton Moore, the third Earl of Drogheda, the Abbey and its possessions passed to the Drogheda family. The family made their seat at Monasterevin and later built Moore Abbey House. A 1596 lease on the Manor of Evon

(Monasterevin) lists, ' … a fair hall, a stable, kitchen, and other rooms, an orchard, watermill ...' (SMR file). Their eldest son Henry became the fourth Earl of Drogheda in 1714. Henry inherited the estate of Monasterevin from his grandfather, Lord Loftus in 1725. He was later succeeded by his brother Edward, who had to sell much of the estate lands in County Louth to meet Henry's debts.

In 1767, Edward's son and the sixth earl (also created first Marquess of Drogheda in 1791), Charles Moore, is reported to have demolished what remained of the Cistercian Abbey and used the stones to build a new parish church. On a 1759 survey map of Monasterevin Demesne by Scalé (NLI Ms. 21. F. 37 (131-71) Map 147), a church is depicted to the north of Moore Abbey House, but no visible surface trace of this church survives (SMR file). A medieval font decorated with eight arcaded, can be found in a nearby modern chapel, however, and this may have come from the levelled parish church but originally from the Cistercian Abbey. Furthermore, in the mid- and late-nineteenth century, burials discovered just east of the house were probably associated with the former monastery and in 1996, archaeological investigations revealed further burials in this area, as well as ironworking debris, sherds of medieval pottery and a timber-lined pit (possibly representing a sluice, drain or dock) located on the original bank of the River Barrow and also of possible medieval date (Mullins 1996; 1997).

In addition to the new parish church, Moore also built a neo-Gothic style mansion known as Moore Abbey. According to Bence-Jones (1978, 210), the present Moore Abbey House is a 1767 rebuilding of a sixteenth/seventeenth-century house. The entrance incorporates a fine seventeenth-century surround of the Lofus family, and the later porch shows the coat of arms of the Moore family (SMR file). A date stone of 1607, and two sixteenth-century jamb stones, reused in a window, are incorporated into the east wall, with the latter possibly coming from the earlier house or from the abbey.

The Moore family were also largely responsible for laying out the town of Monasterevin in a typical eighteenth-century gird format, with the area, which had previously consisted of a single long street called Main Street, undergoing extensive planning and development between 1790 and 1860. This included the construction of the Grand Canal in 1786 and the railway in 1847, while a new Town Bridge was built in 1832 on the edge of Moore Abbey Demesne (Lewis 1837). Monasterevin has an unusual number of Bridges giving rise to the appellation 'the Venice of Ireland'. This includes a single-arch rubble stone foot bridge over the canal, built c.1785 (NIAH Reg. No. 11816101); a single-arch rubble stone hump back road bridge over the canal, built c.1800 (NIAH Reg. No. 11816005); a three-arch rubble stone canal aqueduct over the river, built c.1825 (NIAH Reg. No. 11816004); a five-arch bridge over the river, built 1832 (NIAH Reg. No. 11816057); a three-span railway bridge over the canal, built 1847 and renovated c.1950 (NIAH Reg. No. 11816105); a nine-span railway

viaduct over river and roads, built 1847 (NIAH Reg. No. 11816001), and a three-span railway viaduct over canal and road, built 1847 (NIAH Reg. No. 11816026). The following is an extract from Lewis' *A Topographical Dictionary of Ireland* of 1837:

> *The street is intersected by the Dublin road; and a bridge of six arches over the Barrow was erected in 1832, in a direct line with the road, by which the former sharp and dangerous turn is avoided. A new street has recently been laid out in a direction parallel with the back of the principal street, at the private expense of the Rev. Henry Moore; and great improvements have been made on the line of the Grand Canal by that company, among which may be noticed the construction of an elegant cast iron drawbridge over the canal, in 1829, and the carrying of the canal over the Barrow by an aqueduct of three arches of 40 feet span, handsomely built of hewn limestone, and surmounted by an iron balustrade; a branch canal from this place has also been extended to the thriving town of Portarlington. The extensive brewery, distillery, and malting concern of Mr. Cassidy, whose dwelling-house is highly ornamental to the town, afford employment to many of the working class; and a small tobacco and a tobacco-pipe manufactory are also carried on. The traffic arising from its situation as a great thoroughfare on one of the branches of the great southern road from the metropolis adds to the support of the town. Its situation in the midst of a vast extent of turbary affords eminent advantages for the establishment of manufactures; and its facilities of communication with Dublin, Shannon harbour, and Waterford, by means of the Grand Canal and the Barrow navigation, render it peculiarly favourable to the carrying on of a very extensive inland trade*.

There are many notable eighteenth- and nineteenth-century buildings still surviving across Monasterevin town today. Archaeological monitoring of groundworks associated with the restoration of one such building, the eighteenth-century Grove House (NIAH Reg. No. 11816047), previously revealed a deposit of 'garden soil' likely corresponding to the long, narrow rear gardens depicted on the earliest maps of Monasterevin and representing burgage plots (Ó Drisceoil 2003). Although it is not yet clear if a medieval settlement existed in Monasterevin at the same time as the Cistercian monastery, it can be speculated that if it did it would probably have been located somewhere near the present centre of the town (ibid.). A barrel-vaulted culvert built partly of brick, but predominantly of stone and mortar, was also uncovered during these works and likely represented a post-medieval sewer or wastewater culvert depositing waste into the River Barrow some 110m to the west.

The tenth Earl of Drogheda abandoned Moore Abbey House in the early twentieth century and it was later sold to the Sisters of Charity of Jesus and Mary. The railway station at Monasterevin closed in 1976 but it remains intact, displaying typical Great Southern & Western Railway (GSWR) architecture but with brick chimneys (NIAH Reg. No. 11816094).

4.2 Pass Bridge

Pass bridge forms part of the development of the road network in the town of Monasterevin during the mid-eighteenth century. It spans the townland boundary, defined by the River Barrow, between Passlands and Coolnafearagh and is located in the Civil Parish of Monasterevin and the Barony of West Offaly. Passlands (*Fearann Áth an Bhealaigh*) is referred to as 'Passford' on Noble and Keenan's 1752 map, as 'Pass' in the second edition of the Directory of Postal Towns in 1814, and as 'Pass Lands' in the 1837 Ordnance Survey Parish Namebooks (https://www.logainm.ie/25214.aspx). Coolnafearagh (*Cúil na Fiarach*) was recorded as Cowlynefidraghe alias Disertane as early as 1567 with a reference to Cullynferragh in 1601 and various versions used throughout the seventeenth and eighteenth centuries, including Collnafera on Noble and Keenan's 1752 map, with O'Donovan recording *Cúl na fiarach* as 'back of the back' in the 1837 Ordnance Survey Parish Namebooks (https://www.logainm.ie/25202.aspx).

While Hermann Moll's 1728 map, *King's County, Queen's County and Kildare County*, depicts 'Monsterevan' and the River Barrow it does not include any bridges (Figure 4), Noble and Keenan's 1752 map, however, does illustrate a bridge over the river north of the town that likely represents the Pass Bridge (Figure 5). Indeed, this bridge is also depicted on Taylor and Skinner's 1777 Maps of the Roads of Ireland, on the Portarlington Road (Figure 6), as well as on Taylor's 1783 map, where it is labelled Pass Bridge (Figure 7).

Figure 4: Extract from Hermann Moll's 1728 map, showing Monasterevin and the River Barrow (© Bibliothèque nationale de France)

Figure 5: Extract from Noble and Keenan's 1752 map (North), showing bridge over river in area of Pass Bridge (© The Placenames Branch)

Figure 6: Extract from Taylor and Skinner's 1777 map (sheet 96), showing Pass Bridge on the Portarlington Road (© archiveorg)

Figure 7: Extract from Taylor's 1783 map (centre-west segment), showing 'Pass Bridge' (Creative Commons Attribution)

The first edition 6-inch Ordnance Survey (OS) map surveyed in 1836 shows the bridge with up to four arches or piers and it is clearly depicted as 'Pass Br.' (Figure 8). At least four houses/buildings are illustrated on the east side of the river adjacent to the canal, while up to three others are depicted on the west side of the river. Griffith's Valuation of 1847–64 records the land on both sides of the bridge and river as owned by the Marquis of Drogheda, with the four buildings and land to the east leased by Timothy Brennan, who also sub-let two of the houses and their associated gardens to Michael Finnigan and Owen Mallen, while the land and three buildings to the northeast was leased by Arthur Rooney. A similar layout of structures is also illustrated on the third edition 25-inch OS map surveyed in 1908, though this time the railway line is illustrated to the south as are several small islands or linear deposits within the River Barrow, which has also changed course slightly (Figure 9). The bridge is named as 'Pass Bridge'. The last edition 6-inch OS map surveyed in 1942 also shows the bridge as 'Pass Bridge', while the 'Pass Cross Roads' is illustrated for the first time to the west (Figure 10).

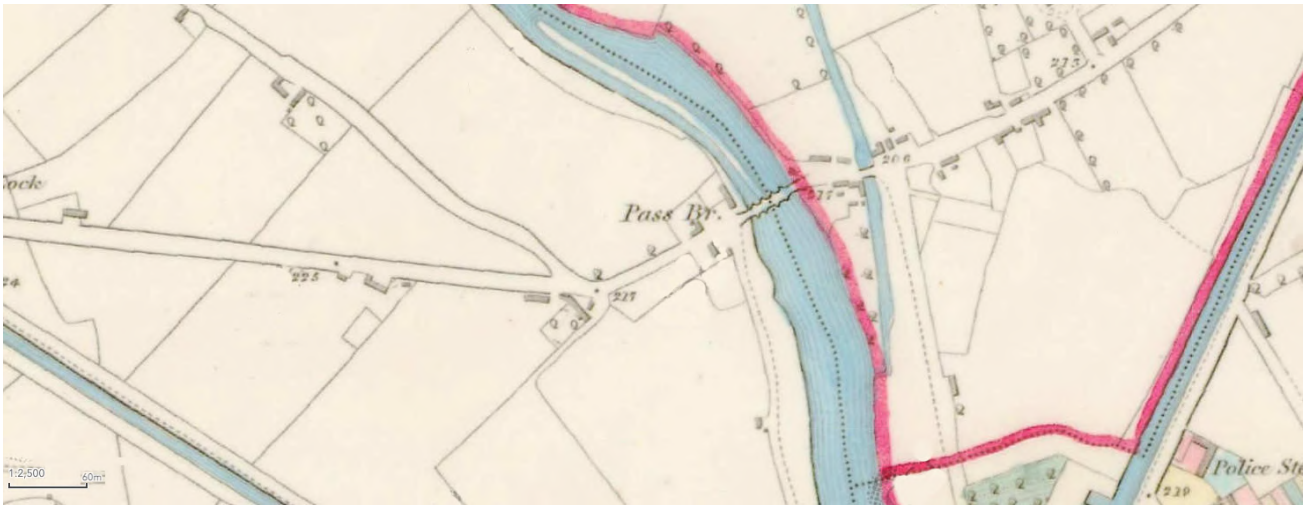

Figure 8: Extract from first edition 6-inch Ordnance Survey map (surveyed 1836 – published 1839), showing triangular cut-waters and five arches and labelled 'Pass Br.' (© Tailte Éireann)

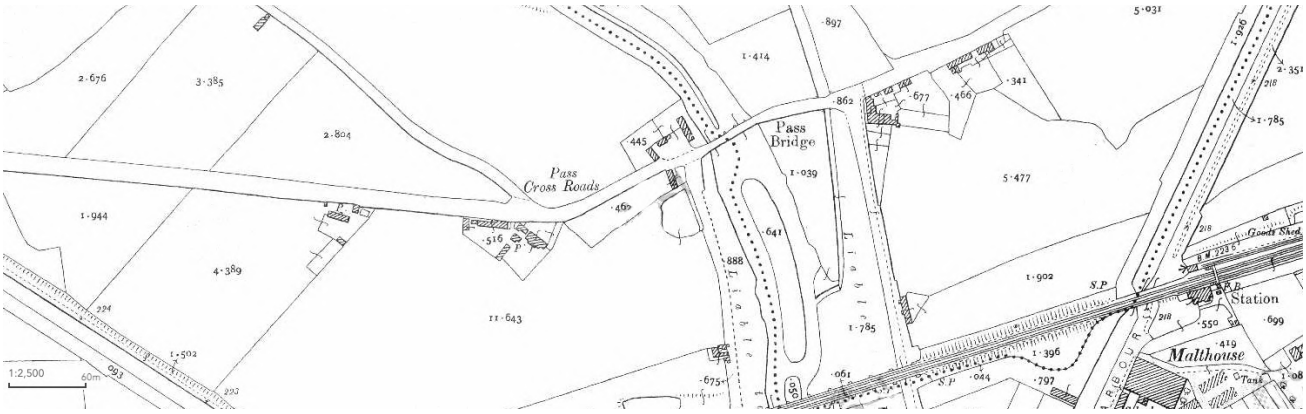

Figure 9: Extract from third edition 25-inch Ordnance Survey map (surveyed 1908 – published 1909), depicting 'Pass Bridge' and 'Pass Cross Roads' (© Tailte Éireann)

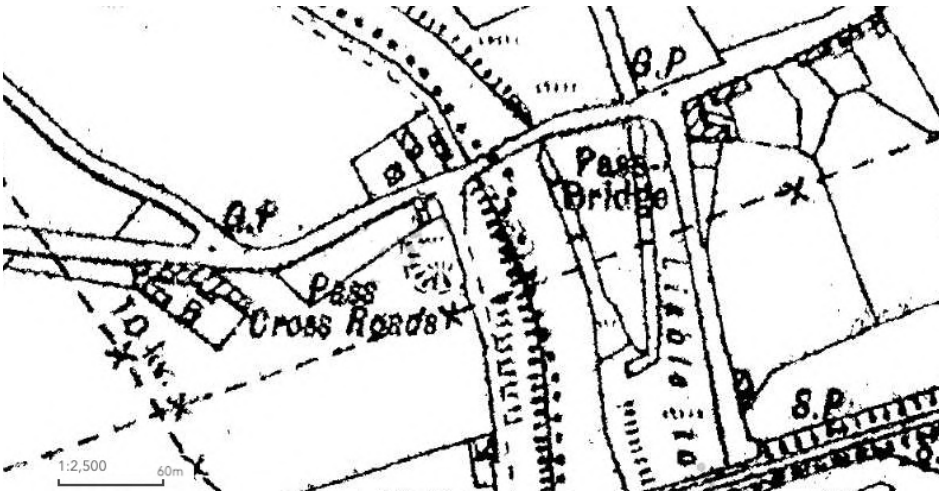

Figure 10: Extract from final edition 6-inch Ordnance Survey map (surveyed 1942 – published 1943), depicting 'Pass Bridge' and 'Pass Cross Roads' (© Tailte Éireann)

A review of available aerial photography for the area was also undertaken as part of this assessment. Aerial photographs dating between 1995 and 2018 from the Ordnance Survey of Ireland (OSi) and Google Earth imagery dating between 2006 and 2023 were assessed. The bridge is shown crossing the River Barrow and is visible within an unchanged or unaltered landscape on all examined aerial images.

The Schools' Collection, a collection of folklore compiled by school children in Ireland in the 1930s, includes a note on Pass Bridge made in 1937 by Dorethy Bryan (aged 14), who got the account from her father, a farmer aged 66 and 'living in Old Grange, Monasterevan, where he was born, and spent all his life' (Volume 0780, Page069a):

> *The Pass Bridge is situated in Passlands, Monasterevan, about half a mile from Monasterevan town. Pass Bridge is built over the river Barrow and it is only there since the time of Cromwell. Before this the people crossed the river at the shallow part. Cromwell was marching from the south to Dublin. When he came to the river he did not cross at the ford because he was not accustomed to crossing the water on horse-back, so he built the bridge. This bridge has never been altered since that time, although it was blown up in the time of the Black and Tans, and rebuilt again. It is so narrow at the top, that two vehicles could not pass side by side.*

A second entry in *The Schools' Collection* (Volume 0780, Page 006) records similar folklore about Cromwell, adding that 'He planted an elder tree in Monasterevan at a place now known as the Pass bridge or Cromwell's Pass' but that this 'elder tree was destroyed in 1922 when the bridge was blown up by the Republican forces'. According to the Countess of Drogheda in 1902–3, however, the bridge was also reported to have been crossed by the Earl of Essex in 1599, and only later by Cromwell on his way to destroy Lea Castle in Co. Laois (SMR file). Sir Robert Devereaux, Earl of Essex, was one of several occupants in the area during the Elizabethan era (AD 1558–1603) and the bridge was originally named Essex Bridge after him but came to be commonly known as the Pass Bridge, reportedly because he passed over it on his way to his disastrous campaign against the native Irish in Munster (The County Kildare Federation of Local History Groups). Accordingly, these accounts suggest that an earlier, sixteenth-/seventeenth-century bridge, may once have stood here.

Notably, a much earlier presence in the area is also attested by several archaeological objects recovered from the River Barrow, including in the vicinity of Pass Bridge, particularly between the years 1929 and 1931. These include at least eight stone axeheads (NMI 1929:1198; 1931:176, 177, 184, 189; 1932:6648, 7040; 1940:311), several of which are recorded as polished or partly polished and most are likely Neolithic (3900–2450 BC) in date. A well-preserved, Class 1 bronze sword (NMI 1940:310) of Late Bronze Age date (1100–700 BC), was also recovered from this area during drainage operations (Eogan 1965, 25, fig. 4, no. 8).

5. ARCHITECTURAL SURVEY

5.1 Survey Methodology

Pass Bridge was examined, photographed and surveyed. The survey included a written description of the bridge and its setting. A desk-based review of various written, cartographic and photographic sources was undertaken alongside a site visit. The bridge was photographed in plan and both upstream and downstream elevations were surveyed using rectified photography using a UAV (DJI Phantom 4 Drone with RTK capability). The results of the surveys are presented in Plates 4–13.

5.2 Description Overviews

Appendix 6 of the *Kildare County Development Plan 2023–2029* details Pass bridge as follows:

RPS No.	NIAH Ref.	Structure Name	Townland	Description	6" Map
B21-02	11816100	Pass Bridge	Coolnafearagh	Bridge	21

The *National Inventory of Architectural Heritage* entry is as follows:

Reg No.	Rating	Categories of Special Interest	Original Use	In Use As	Date	Coordinates	Date Recorded
11816100	Regional	Architectural, Historical, Social, Technical	Bridge	Bridge	1725–1775	262248, 210994	29/05/2002
Description: Five-arch rubble stone road bridge over river, c.1750, with triangular cut-waters, rubble stone voussoirs and cut-stone coping to parapet walls. Random rubble stone walls. Rubble stone triangular cut-waters. Rubble stone parapet walls with cut-stone coping. Five round arches. Rubble stone voussoirs. Rubble stone soffits with render over. Sited spanning River Barrow with grass banks to river. **Appraisal**: Pass Bridge is a fine stone bridge that forms an imposing feature on the River Barrow and is one of a group of bridges on the section of that river that passes through County Kildare – the bridge is of considerable interest as the earliest surviving bridge in the locality of Monasterevin. The construction of the arches that have retained their original shape is of technical and engineering merit. The bridge exhibits good quality traditional stone masonry. The bridge is of considerable historical and social significance as a reminder of the road network development in Ireland in the mid eighteenth century.							

The *Record of Monuments and Places* entry is as follows:

KD021-006----	Bridge	Coolnafearagh, Passlands
According to the Countess of Drogheda (1902–3, 235), the bridge was possibly crossed by the Earl of Essex in 1599, and later by Cromwell on his way to destroy Lea Castle in Co. Laois (LA005-006----). A five-arch bridge (L c. 40m; Wth 4.1m) spans the S-flowing River Barrow, just N of Monasterevin. It is constructed of roughly coursed, undressed limestone blocks and, although rebuilt in places, appears to contain a good deal of original fabric. It has been extensively repointed and the bases of the piers are of concrete. Four triangular cutwaters on the N, upstream, face rise the full height and are incorporated into the parapet as small refuges. Similar cutwaters on the S-face are only the height of the base of the piers. Traces of a sixth, lower, blocked-up, overgrown arch are visible on the S-face of the bridge at its W end. It is also known as 'Ballagh Bridge'. Compiled by: Gearóid Conroy. Date of upload: 20 October 2011. **Six-Inch First edition**: 'Pass Br.' **Six-Inch Latest edition**: 'Pass Bridge' **ITM Coordinates**: 662189 , 711028 **Latitude and Longitude**: 53.146132 , -7.070383		

5.3 Survey Results

A site inspection was carried out on Tuesday, 3 September 2024, by Ian Russell of Archaeological Consultancy Services Unit (ACSU) Ltd.

The Pass Bridge is a five-arch road bridge over the River Barrow (Plates 1–2), which was built c. 1750, although there may also have been an earlier iteration of the bridge. It is constructed of roughly coursed, undressed limestone blocks, with triangular cut-waters (Plates 3–16). It is recorded as approximately 40m in length and 4.1m in width. The five arches of the bridge increase in height towards the middle (Plates 4–5), giving rise to a strongly humped deck that is also relatively narrow, meaning this bridge requires a traffic light system (Plate 3).

Each arch ring is composed of cut-stone voussoirs (Plates 17–18) and the stone soffits are rendered (Plates 15 and 18). The parapet wall has flat, slightly rounded concrete coping that changes to upright or vertical cut-limestone blocks just before the final pier/cut-water on both the east and west sides (Plates 24, 26, 27 and 29). This change also corresponds to a slight increase in the height of the parapet wall (Plates 4–5). This upper course of upright or vertical blocks also extends over the approach walls on both sides of the bridge, which

consist of roughly coursed limestone blocks (Plates 23 and 25). On the east side of the bridge, the north wall also curves down where it is joined by a lower approach wall (Plate 29). This is the only area where this feature was observed.

Condition

Much of the original fabric remains, although it has been rebuilt in places, repointed and the bases of the piers are encased in concrete as part of previous improvement works (Plate 16). Between 1926 and 1934, the River Barrow was the subject of an arterial drainage scheme, with 210 km of main rivers and tributaries and 175 km of smaller drains deepened and widened to improve conveyance (Shaffrey and Kehoe 2020). The concrete could date from this period, but this would need to be verified. The abutment/side wall on the west side of the south face also appears to have been repaired in the past (Plates 8 and 21). A modern water treatment or testing facility was also constructed in this area in the past, including steps, metal railing and a concrete pillar (Plates 8, 12 and 21).

In recent times, the cut-stone coping to the north parapet wall on the west side of the bridge has been damaged and is now missing (Plate 26). This damage is not visible on Google Earth imagery dating to May 2023 (Figure 11). This has also impacted the adjacent cut-water, which shows extensive cracking (Plate 27).

Areas of vegetation growth, including lichens, moss and ivy, were also observed on the bridge, particularly around the base of the piers, on the spandrels, abutments and along the parapet, including in the area of the missing coping and damaged cut-water (Plates 19 and 20).

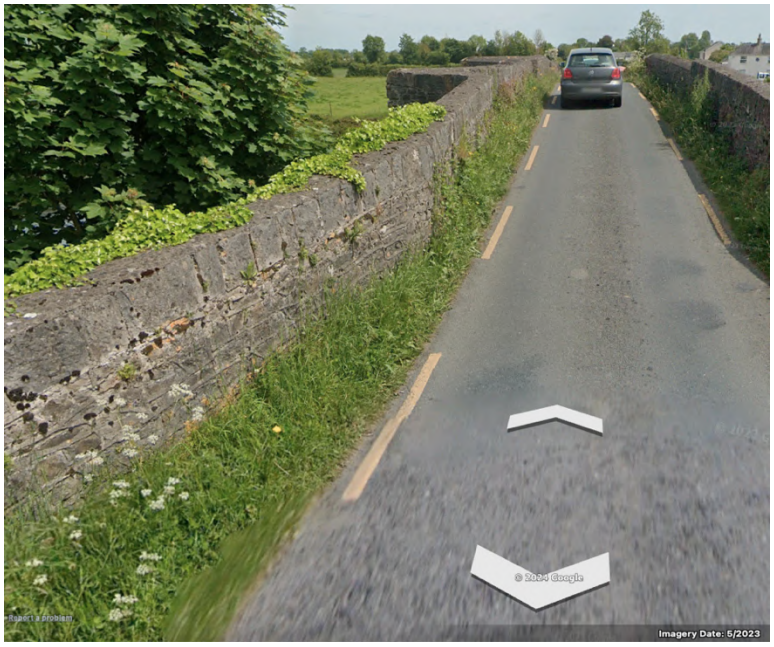

Figure 11: North wall and parapet on west side of Pass Bridge still intact (May 2023 Google Earth street view image)

6. ARCHITECTURAL HERITAGE IMPACT ASSESSMENT

This section addresses the impact of the proposed works relating to the Protected Structure and RMP site, having regard to compliance with statutory policies, designations and guidance as outlined in Section 3 of this report.

Repair and reconstruction to the masonry walls, including the damaged coping on the approach wall, parapet and cut-water, will alter the fabric of the structure, however, these works are necessary to minimise further damage, particularly in the area where the wall core is exposed to water penetration and therefore at risk for further deterioration. These represent localised invasive work but will be designed to minimise impact, both visually and physical, by using appropriate materials that are compatible with the existing historic fabric of the bridge. Conservation best practice guidelines should be adhered to for all repair and reconstruction works.

The clearing of vegetation from the parapets and spandrels is also a necessary removal alteration as it may be hiding additional structural damage as well as increasing existing cracks, particularly regarding plants with woody roots such as ivy. The removal of vegetation without proper consideration can also increase the risk of masonry collapse. All vegetation removal should therefore be carried out in accordance with best conservation practice guidelines and advice. The latter includes the 2010 advice series by the then Department of Environment, Heritage and Local Government (e.g. *Ruins: The Conservation and Repair of Masonry Buildings*).

The proposed works include alteration to the soft verges on both sides of the carriageway pavement. If the tarmac is to be removed during any such works (or there is any other ground disturbance to any of the areas adjacent the bridge) it is recommended that the work is monitored by a suitably qualified archaeologist under licence from the Department of Housing, Local Government and Heritage. This is to ensure that any earlier road surface or structures are recorded. Should such features be uncovered, further mitigation may be sought by the National Monuments Service.

7. RECOMMENDATIONS

Pass Bridge is protected by both the National Monuments Acts 1930–2014 and the Planning and Development Acts 2000 (as amended). Undertaking work on such sites, including vegetation removal, requires permission that will be accounted for by the Section 177 application to An Board Pleanála (if such an application is not progressed, however, such work may require the submission of a Section 57 declaration

to the Planning Authority and a Section 12 notification to the Minister for Housing, Local Government and Heritage).

All work should be completed in accordance with conservation best practice guidelines. If there is any ground disturbance to any of the areas adjacent the bridge this may require monitoring by a suitably qualified archaeologist working under licence from the Department of Housing, Local Government and Heritage. Should any archaeological features be exposed, further mitigation may be sought by the National Monuments Service.

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The Schools' Collection (https://www.duchas.ie/en/cbes/schools?).

Plate 1: General view of Pass Bridge, looking south, with Barrow Bridge visible in background

Plate 2: General view of Pass Bridge, looking north

Plate 3: Plan view of Pass Bridge

Plate 4: North-facing elevation

Plate 5: South-facing elevation

Plate 6: Detail of north-facing elevation, east side

Plate 7: Detail of north-facing elevation, west side

Plate 8: Detail of south-facing elevation, west side

Plate 9: Detail of south-facing elevation, east side

Plate 10: North-facing elevation, oblique view looking southwest

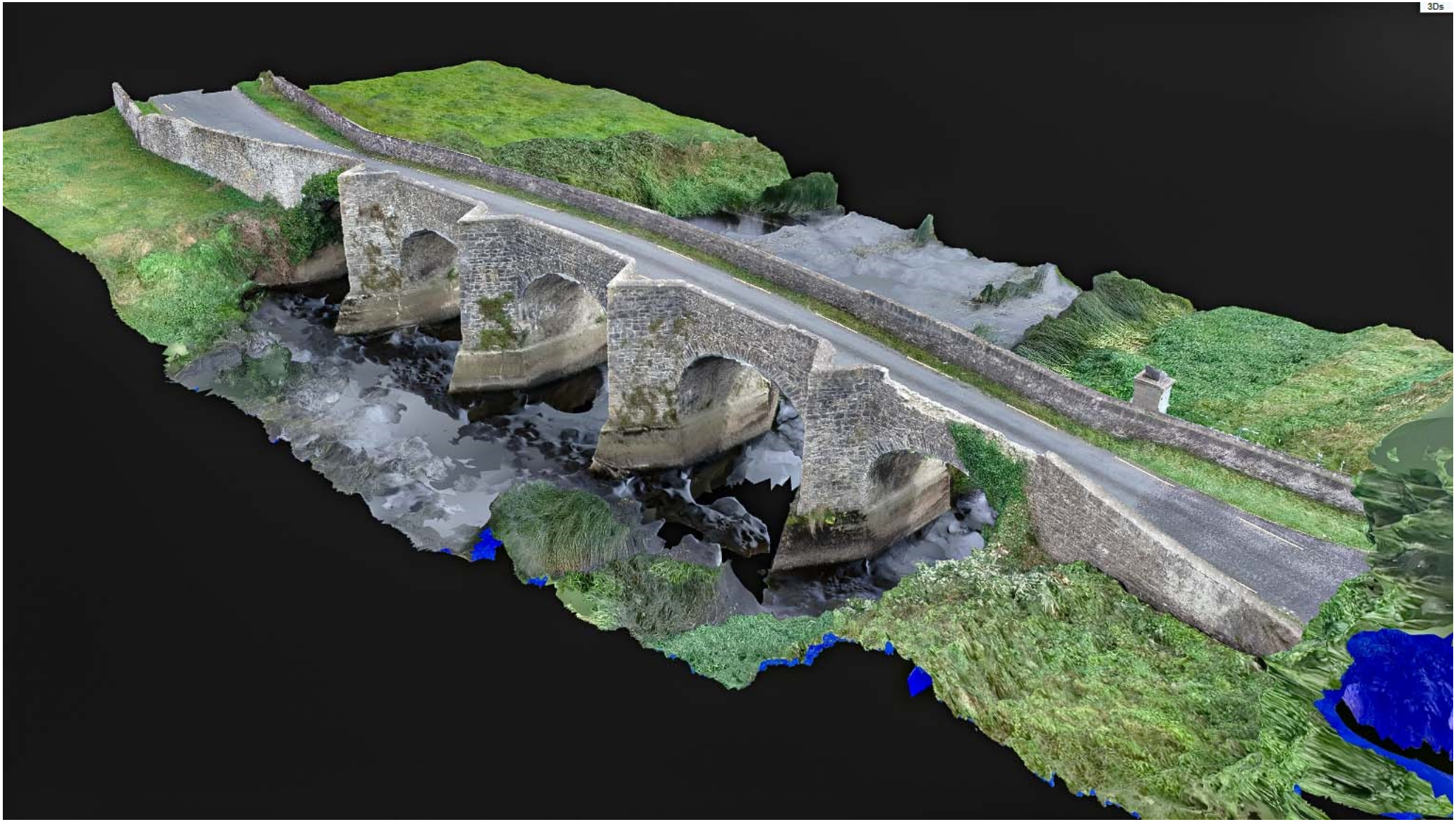

Plate 11: North-facing elevation, oblique view looking southeast

Plate 12: South-facing elevation, oblique view looking northeast

Plate 13: South-facing elevation, oblique view looking northwest

Plate 14: View of triangular cut-waters on north-facing elevation

Plate 15: View of triangular cut-waters on south-facing elevation, with rendered soffits visible

Plate 16: Close-up of concrete base of triangular cut-water/pier

Plate 17: Detail of voussoirs on north-facing elevation

Plate 18: Detail of voussoirs on south-facing elevation, with rendered soffit visible

Plate 19: Detail of abutment and side wall on west side of north-facing elevation

Plate 20: Detail of abutment and side wall on east side of north-facing elevation

Plate 21: Detail of abutment and side wall on west side of south-facing elevation

Plate 22: Detail of abutment and side wall on east side of south-facing elevation

Plate 23: View of bridge deck, looking northeast, showing parapet walls with cut-stone coping

Plate 24: Detail of cut-stone coping on parapet wall and triangular cut-water

Plate 25: Approach walls on west side of bridge, looking northeast

Plate 26: Detail of recent damage to north approach wall on west side of bridge

Plate 27: Cracking visible in triangular cut-water in north wall on west side of bridge

Plate 28: Approach walls on east side of bridge, looking southwest

Plate 29: Detail of masonry in north approach wall on east side of bridge

CLANDILLON
CIVIL CONSULTING

EIA Screening Report

APPENDIX B - APPROPRIATE ASSESSMENT STAGE 1: SCREENING REPORT

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FLYNN FURNEY
ENVIRONMENTAL CONSULTANTS

Appropriate Assessment Stage 1: Screening

Passlands Bridge (KE-R424-B-010) repair at Monasterevin, Co. Kildare.

Document Details

Client:	**CCC – Clandillon Civil Consultants**
Project Title:	**Appropriate Assessment Screening for Bridge Repairs , Co. Kildare**
Document Title:	**Passlands Bridge (KE-R424-B-010) repair at Monasterevin, Co. Kildare Appropriate Assessment Screening Report.**
Prepared by:	**Flynn Furney Environmental Consultants**

Rev	Status	Date	Author(s)	Approved by
01	DRAFT	19/06/2024	MR	CD
02	DRAFT 2	01/07/2024	CD	ID

Contents

1 Introduction

1.1 Background

Flynn Furney Environmental Consultants have been appointed to provide the information necessary to allow the competent authority to conduct an Article 6(3) Screening for Appropriate Assessment for the proposed maintenance of the Passlands bridge (KE-R424-B-010) in Monasterevin, Co. Kildare. A full description of the proposed works is given in Section 2 below.

Screening for Appropriate Assessment is required under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). This Appropriate Assessment Screening Report has been prepared in accordance with the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2021) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

1.2 Relevant Legislation and overall Screening Methodology

The methodology for this screening statement is set out in a document prepared for the Environment DG of the European Commission entitled 'Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6*(3)* and 6*(4)* of the Habitats Directive 92/43/EEC' *(European Commission, 2019, amended 2021)*. This report and any contributory fieldwork were carried out in accordance with guidelines given by the Department of Environment, Heritage and Local Government *(2009, amended 2010)*.

The process is given in Articles 6*(3)* and 6*(4)* of the Habitats Directive and is commonly referred to as 'Appropriate Assessments' *(which in fact refers to Stage 2 in the sequence under the Habitats Directive Article 6 assessment)*. Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Articles 6*(3)* and 6*(4)* of the Habitats Directive set out the decision-

making tests for plans and projects likely to affect Natura 2000 sites *(Annex 1.1)*. Article 6*(3)* establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the (Natura 2000) site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6*(4)* of the same directive states:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

It is the responsibility of the proponent of the plan or project to provide the relevant information *(ecological surveys, research, analysis etc.)* for submission to the 'competent national authority'. Having satisfied itself that the information is complete and objective, the competent authority will use this information to screen the project, i.e. to determine if an AA is required and to carry out the AA, if one is deemed necessary. The competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned. The appropriate assessment process has four stages. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. The four stages are:

1. Screening to determine if an appropriate assessment is required.
2. Appropriate assessment
3. Consideration of alternative solutions
4. Imperative Reasons of Overriding Public Interest/Derogation

Table 1: The stages of AA.

Stage 1: Screening for AA
The aim of screening is to assess firstly if the plan or project is directly connected with or necessary to the management of Designated Site*(s)*; or in view of best scientific knowledge, if the plan or project, individually or in combination with other plans or projects, is likely to have a significant effect on a Designated Site. This is done by examining the proposed plan or project and the conservation objectives of any Designated Sites that might potentially be affected. If screening determines that there is potential for significant effects or there is uncertainty regarding the significance of effects then it will be recommended that the plan or project is brought forward to the next stage of the AA process.
Stage 2: Appropriate Assessment
The aim of stage 2 of the AA process is to identify any adverse impacts that the plan or project might have on the integrity of relevant Designated Sites. As part of the assessment, a key consideration is 'in combination' effects with other plans or projects. Where adverse impacts are identified, mitigation measures can be proposed that would avoid, reduce or remedy any such negative impacts and the plan or project should then be amended accordingly, thereby avoiding the need to progress to Stage 3.
Stage 3: Assessment of Alternative Solutions
If it is not possible during Stage 2 of the AA process to conclude that there will be no adverse effects on site integrity, Stage 3 of the process must be undertaken which is to objectively assess whether alternative solutions exist by which the objectives of the plan or project can be achieved. Explicitly, this means alternative solutions that do not have adverse impacts on the integrity of a Designated Site. It should also be noted that EU guidance on this stage of the process states that, 'other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria' *(EC, 2002)*. In other words, if

alternative solutions exist that do not have adverse impacts on Designated Sites; they should be adopted regardless of economic considerations. This stage of the AA process should result in the identification of the least damaging options for the plan or project.
Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)/Derogation
This stage of the AA process is undertaken when it has been determined that a plan or project will have adverse effects on the integrity of a Designated Site, but that no alternatives exist. At this stage of the AA process, it is the characteristics of the plan or project itself that will determine whether or not the competent authority can allow it to progress. This is the determination of 'overriding public interest'. It is important to note that in the case of Designated Sites that include in their qualifying features 'priority' habitats or species, as defined in Annex I and II of the Directive, the demonstration of 'overriding public interest' is not sufficient and it must be demonstrated that the plan or project is necessary for 'human health or safety considerations'. Where plans or projects meet these criteria, they can be allowed, provided adequate compensatory measures are proposed. Stage 4 of the process defines and describes these compensation measures.

1.3 Appropriate Assessment Screening Report

This report provides stage one: screening for appropriate assessment. It aims to establish whether a plan or project is likely to have any significant effects on any Natura 2000 sites. The study is based on a preliminary impact assessment using both publicly available data and data collected during site visits and ecological surveys. This is followed by a determination of whether there is a risk that the effects identified could significantly impact any Natura 2000 sites, and if an AA is required. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by the European Court of Justice case law. Therefore, where significant effects are likely, possible or uncertain at the screening stage, AA will be required.

1.4 Reference Documents

The following relevant documents were considered in preparation of this report.

Table 2: Reference Documents.

Name / Number	Description
Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities	National guidance on Appropriate Assessment for planning authorities. Department of Environment, Heritage and Local Government, (2010 revision)
Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities	Circulars issued by the Department of Environment, Heritage and Local Government with guidance relating to Appropriate Assessment. Circular NPWS 1/10 & PSSP 2/10 (2010)
Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC	The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Articles 6(3) and (4) of the Habitats Directive European Commission Environment Directorate-General, (2001 and updates April 2015 and September 2021).
Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC	Publication to the Member States with an interpretation of certain concepts in Article 6 of the Habitats Directive. EC Environment Directorate-General (2018)
Communication from the Commission on the precautionary principle.	Publication relating to the use of the precautionary principle. European Commission (2000)
Appropriate Assessment Screening for Development Management. Practice Note PN01.	Publication from the Office of the Planning Regulator relating to screening for Appropriate Assessment. OPR (March 2021)
Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities	National guidance on Appropriate Assessment for planning authorities. Department of Environment, Heritage and Local Government, (2010 revision)

Name / Number	Description
Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities	Circulars issued by the Department of Environment, Heritage and Local Government with guidance relating to Appropriate Assessment. Circular NPWS 1/10 & PSSP 2/10 (2010);
Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC	The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Articles 6(3) and (4) of the Habitats Directive European Commission Environment Directorate-General, (2001 and updates April 2015 and September 2021).
Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC	Publication to the Member States with an interpretation of certain concepts in Article 6 of the Habitats Directive. EC Environment Directorate-General (2018)
Communication from the Commission on the precautionary principle.	Publication relating to the use of the precautionary principle. European Commission (2000)

1.5 Statement of Authority

Flynn Furney EC have over 20 years of experience working on national infrastructure projects (including roads, drainage & sewerage schemes) and community-based projects. Provided services include Ecological Impact Assessments (EcIAs), Appropriate Assessment (AA), Ecological Surveys, On-site Ecology, Site Supervision & Management Plans, with extensive experience in consulting on planning and design for greenways and other walking and cycling trails, and in preparing Biodiversity Action Plans.

The field assessment survey was undertaken by C. Doyle BSc., who has several years' experience in the area of habitat mapping and AA screening, and M. Ragusa MSc. on the 15th of March 2024. This report has been prepared by M. Ragusa MSc. and C. Doyle.

2 Description of Proposed Works

The project involves the rehabilitation of the Passlands Bridge (KE-R424-B-010) over the River Barrow (IE_EA_07B040400). Proposed works on the bridge are likely as follows:

- **Repointing:** Removal of deteriorated mortar from the joints between the bricks or stones and refilling them with new mortar.
- **Crack Repair:** Methods may include injecting cracks with epoxy or installing tie rods or steel plates to reinforce the affected area.
- **Stone Replacement:** Damaged or eroded stones are removed and replaced with new stones that match the originals in terms of size, material, and appearance.
- **Addressing Any Water Issues:** Water seepage can be tackled by repairing cracks, clearing drainage channels, and applying waterproofing materials. Vegetation growth on the bridge should also be removed as it can trap moisture and damage the masonry.
- **Metal Component Repairs:** Metal bridge railings, expansion joints, and other components may require repair or replacement to ensure safety and functionality.

The main structural problem requiring repairs is the Masonry repairs needed for the damaged section of the upstream parapet and stitching repairs is required for the adjacent cutwater. Photographs of the bridge in the damaged sections are shown in the Appendix A.

3 Methodology

3.1 Desk Study

A desktop study was carried out as part of this screening process. This included a review of available literature on the site and its immediate environs. Sources of information included the National Parks and Wildlife Service databases on protected sites and species data, and from the Environmental Protection Agency on watercourses.

3.2 Data Used to Carry Out the Assessment

The following sources of data were employed:

- Environmental Protection Agency *(EPA)* Appropriate Assessment Tool
- EPA Maps (to identify watercourses, hydrology and Natura 2000 site boundaries)
- NPWS protected species database and online mapping
- National Biodiversity Data Centre
- Inland Fisheries Ireland
- An Bord Pleanála's online database

3.3 SPR Model

This assessment was carried out with regard to the source-pathway-receptor (SPR) approach, a standard tool in environmental assessment. The SPR concept in ecological impact assessment relates to the idea that for the risk of an impact to occur, a source is needed (a development site); an environmental receptor is present (SPA SAC); and finally, there must be a pathway between the source and the receptor (a watercourse linking the development site to the SPAs/SACs). Even though there might be a risk of an impact occurring, that does not necessarily mean that it will occur, and even if it does occur, it may not be significant. Identification of a risk means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

In this instance, the most relevant receptors are any relevant Natura 2000 sites with connectivity to the proposed works. These were considered during the desktop study stage of this screening assessment in order to assess the potential for significant effects upon their Qualifying Interests *(QIs)*, Sites of Community Importance *(SCIs)* and Conservation Objectives *(COs)*. This stage of the process is used to determine whether any of the Natura sites may be 'screened out'. That is, that they can be regarded as not being relevant to the process, having no potential to be significantly affected or impacted upon.

3.4 Field Survey

The field survey was carried out on March 15, 2024. Baseline ecological conditions were assessed. Where applicable, the habitat types were recorded (Smith et al., 2011; Scannell & Synnott, 1987; Wyse Jackson et al., 2016). Habitats were classified, and dominant plant species were noted according to the guidelines given by the JNCC (2010) with reference to Smith et al. (2011) and Scannell and Synnott *(1987)*.

4 Results

4.1 Desk Study

4.1.1 Surface and Groundwater

The bridge proposed for repairs is situated within the Barrow Catchment (Catchment ID: 14), Barrow Subcatchment (Subcatchment ID: 14_20). The KE_R424_B_010 bridge is located over the Barrow_90 River (IE_SE_14B011000) and has an overall WFD status of 'Poor' based on the 'Surface Waterbody WFD Status 2016-2022' and is considered 'At Risk' by the 'Surface Waterbody WFD Risk 2016-2022'. The ground waterbody (code: IE_SE_G_048) in the area has an overall WFD status of 'Good' based on the 'Ground Waterbody WFD Status 2016-2021'. The groundwater vulnerability within the area of the works is classified as 'Not at risk'. The river is also considered Nutrient Sensitive, given the agricultural activities and farmlands surrounding the area.

4.2 Field Study Results

4.2.1 Habitat Assessment

Annex I habitats, identified as of utmost conservation importance under the Habitats Directive, receive legal protection within the Irish framework through the transposition of the Directive into national law, primarily under the European Communities (Natural Habitats) Regulations (S.I. 94 of 1997), which mandates the designation and conservation of Special Areas of Conservation to safeguard these critical habitats. The surrounding habitat is typical of agricultural and urban landscapes with Agricultural grassland (GA1), Hedgerows (WL1) and Built Environment (BL3). None of these habitats have links to the Annex I Habitats

Directive.

4.2.2 Significance of Habitats

There are no habitats listed on Annex I of Directive 92/43/EEC (Habitats Directive) within the survey area. No species of rare, threatened or protected species of plants as per the Red Data List (Wyse Jackson et al., 2016) and no species listed on the Flora (Protection) Order 2022 were present.

4.2.3 Invasive Species

The European Union Regulation (No. 1143/2014) on Invasive Alien Species (IAS) lists 37 species (23 animals and 14 plants) whose potential adverse impacts are such that concerted action across Member States is required. Member States are required to provide for early detection and eradication of these species and must manage those species already widespread within their jurisdiction. The EU recently updated its list of invasive alien species of Union concern. The Convention on Biological Diversity defines Invasive Alien Species (IAS) as "a species that is established outside of its natural past or present distribution, whose introduction and/or spread threatens biological diversity". No invasive species were observed in the proximity of the bridge at the time of the survey.

5 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed development:

- The most recent Geographic Information System (GIS) spatial datasets for designated European sites and water catchments were acquired from the National Parks and Wildlife Service (NPWS) website (www.npws.ie) and the Environmental Protection Agency (EPA) website (www.epa.ie). These datasets were employed to discern European Sites susceptible to potential impacts from the Proposed Development.
- An investigation into the work site characteristics and the risks to the environment with consideration for the potential zone of impact was carried out to determine all probable pathways

and risks to site conservation.

- A source-pathway-receptor model was utilised to identify European Sites within a 15km radius of the development site, providing contextual information on these sites based on site-specific conservation objectives. The assessment also considered European Sites beyond the 15km radius, employing a source-pathway-receptor approach to identify potential impacts. Hydrological catchment mapping facilitated the evaluation of potential hydrological connectivity between the Proposed Development site and European Sites.
- For Special Protection Areas (SPAs), lacking specific European or Irish guidance, the 'Assessing Connectivity with Special Protection Areas (SPA)' guidance from Scottish Natural Heritage (SNH) (2016) was consulted.

All pertinent European Sites are considered, identifying those within the likely Zone of Impact. This screening assessment evaluates direct and indirect impacts of the Proposed Development, considering size and scale, land-take, distance, resource requirements, emissions, excavation, transportation, and construction/operation duration. Site synopses and conservation objectives from the NPWS website were reviewed as of the report's preparation.

5.1. Works, Site Characteristics and Risks to the Environment

The principal risks posed from the project relate to surface water discharge from the site during the proposed works that may impact the water quality of the receiving environment, leading to likely significant effects (LSE) on any QIs or Site(s) of Community Importance (SCI) species. Possible adverse impacts were identified for the SAC, which will be discussed more in details in the section 5.2.

Table 3: Potential Impacts, Effects and their zone of influence

Potential Impact and Effect	Description	Zone of Influence
Habitat loss and fragmentation	Movement of soil, vegetation removal damages to the riverbanks and loss of adequate burrowing areas (White-clawed crayfish).	Limited to the footprint of the maintenance works
Silt and pollutants runoff into the River Barrow.	Changes in surface water quality, impacts on local species.	Local watercourses or surface water bodies with reasonable overland or hydrological connectivity to the proposed development.
Noise, dust, vibration and or human presence resulting in disturbance.	Direct impact on species reducing their ability to forage or breed.	Limited to the proximity of the works area.
Spreading of infectious diseases to native species	Spreading of crayfish plague and decline in native, White-clawed Crayfish. It will also create over-competition with non-native crayfish species.	Further downstream and to other water bodies if the equipment that comes/has previously come into contact with water is not disinfected.

5.2 European Sites with the Potential to be Significantly Affected

The proposed works area is situated within the River Barrow and River Nore SAC, which will be discussed in more detail in the following sections. The potential Impacts are summarised in Table 4.

5.2.1 River Barrow and River Nore SAC (002162)

This site encompasses the freshwater stretches of the Barrow and Nore River catchments, extending from the Slieve Bloom Mountains to the tidal elements and estuary down to Creadun Head in Waterford. The site is designated as a Special Area of Conservation (SAC) for the following Qualifying Interests (QIs) listed under the E.U. Habitats Directive:

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Reefs [1170]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]
- European dry heaths [4030]
- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]
- Petrifying springs with tufa formation (*Cratoneurion*) [7220]
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
- Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]
- Desmoulin's Whorl Snail (*Vertigo moulinsiana*) [1016]
- Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]
- **White-clawed Crayfish (*Austropotamobius pallipes*) [1092]**
- Sea Lamprey (*Petromyzon marinus*) [1095]
- **Brook Lamprey (*Lampetra planeri*) [1096]**
- **River Lamprey (*Lampetra fluviatilis*) [1099]**
- **Twaite Shad (*Alosa fallax fallax*) [1103]**
- **Salmon (*Salmo salar* Salmon) [1106]**
- **Otter (*Lutra lutra*) [1355]**
- Killarney Fern (*Trichomanes speciosum*) [1421]

Species in bold have been identified as at risk due to the proposed works.

Existing threats to the river include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, over-grazing within the woodland areas, and invasion by non-native species, for example, Cherry Laurel and Rhododendron. The water quality of the site remains vulnerable. Capital and

maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such as lamprey and shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein. Although no Annex I Habitats are located within the footprint of the works, it is

Table 4 Summary of the Natura 2000 sites in the proximity of the proposed Greenway works and potential impacts.

Natura 2000 site name	**Code**	**Potential Impacts**	**Likeliness of Impact**
River Barrow SAC	002162	Silt and pollutants runoff. Spread of invasive species.	Moderately likely to likely if no mitigation is put in place.

Given the nature of the proposed works, most of these QIs for the site will not be affected because they are at a significant distance from the bridge. However, there are still potential impacts that could negatively affect the aquatic QIs species:

- Releasees of any sediment/fines to the watercourse could negatively impact gravel spawning beds and water quality that are important to the above species in bold, namely Freshwater Pearl Mussels, fish species, and the Otter that feeds on them. No Otter holts or evidence thereof was found during the survey, though they are likely present in the river system.
- The Crayfish plague is a highly infectious disease caused by the water mould *Aphanomyces astaci*, which severely affects the native White-clawed crayfish. Originating from non-native crayfish species, the disease is almost always fatal to native species. It spreads rapidly through water, direct contact, and contaminated equipment, with infected crayfish dying within days to weeks. The spread of crayfish plague can lead to a significant decline in native white-clawed crayfish populations and create over-competition with non-native crayfish species. The disease can further spread downstream and to other water bodies if equipment that comes into contact with infected water is not properly disinfected.
- Habitat loss and fragmentation, caused by activities such as the movement of soil and damage to

riverbanks, can significantly impact the white-clawed crayfish (QI). These actions could lead to the loss of adequate burrowing areas within the footprint of the maintenance works. Moreover, silt and pollutants runoff into the River Barrow can degrade surface water quality, which can affect the white-clawed crayfish, which rely on clean, well-oxygenated waters. The effects of such runoff are especially concerning for local watercourses or surface water bodies, given the sensitivity of the river barrow to both pollutants and silt overload and its poor water quality (WDF Q-value: 3)

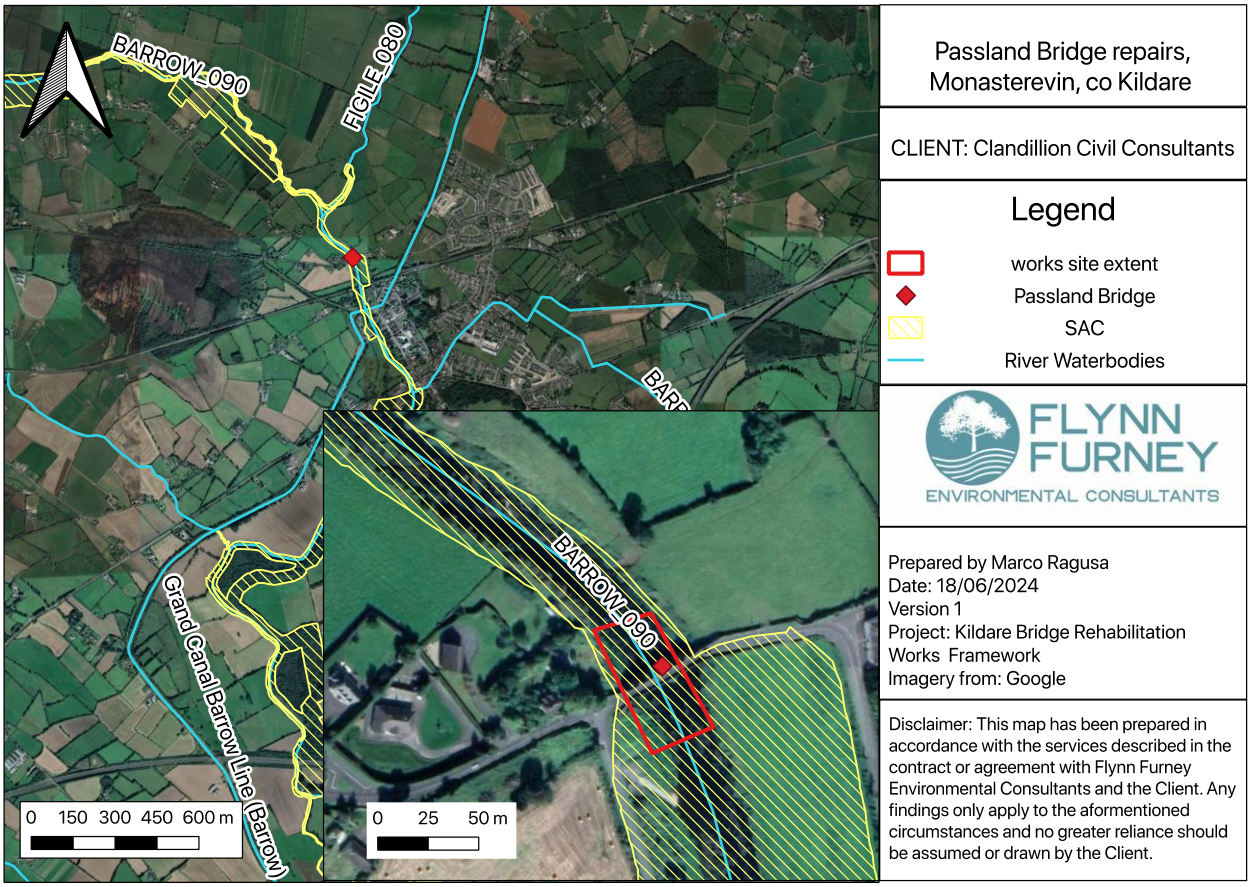

Figure 1. Location of Designated sites in relation to the location of proposed works

6 Assessment Criteria

6.1 Is The Project Necessary to the Management of the Designated Site(s)?

The proposed project is not necessary to or connected with the management of any Designated Sites.

6.2 Possible Direct, Indirect or Secondary Impacts

This report has assessed all impacts (both direct and indirect). The author concludes that significant impacts could be predicted as a result of the proposed development due to the site's sensitivity to pollution and silt runoff and the possible spreading of infectious diseases (Crayfish plague).

6.3 Cumulative and In-Combination Impacts

A search of the Kildare County Council planning registers was carried out on the 19th of June, 2024. Nearby projects were considered for any in combination or cumulative impacts. In the immediate vicinity, there are a few live development projects that have either received approval or are currently under consideration.

(Planning Reference: DZ24A/0017) the planning area is situated 2 km away. The development was registered on 12/01/2024 and plans the development of 8 two-story dwellings (2 and 3-bed, detached, semi-detached, and terraced) within the existing Ferns Bridge development in Monasterevin, County Kildare. This project, on a 0.23-hectare site, includes all associated site development works and follows previous permits under Refs. 15/1104, 21/267, and 15/1041. The development is located at Ferns Walk, Ferns Bridge, and will not have cumulative impacts as it is situated on the banks of the Grand Canal with no connectivity to the SAC.

It is important to note that these projects, while contributing to the local landscape, have no direct connection to each other and other major developing applications near the proposed Greenway are still on holdup to this date (19th of March 2024).

6.4 Conclusion

This report presents the information for the relevant authority, CCC, to carry out a screening for AA. A recommendation that a Stage II is required is made, based on the findings of this assessment. It is for the relevant authority to reach one of the following conclusions:

I. A Stage II AA of the proposed development is required if it *cannot* be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.

II. A Stage II AA of the proposed development is not required if it *can* be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.

This report concludes that the proposed development **would** have a significant effect on European Designated Sites and progression to a Stage II appropriate assessment is **required**. Accordingly, having carried out the Stage 1 Appropriate Assessment Screening, the competent authority may determine that a Stage 2 Appropriate Assessment of the proposed site investigation works is not required as it can be excluded, on the basis of objective scientific information following screening under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended, that the proposed works, individually or in combination with other plans or projects, will not have a significant effect on any European site.

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Appendix A: Pictures

Fig no.	Description	Picture
1.	View of the Passlands bridge form upstream (a) and downstream (b).	 

2.	Top of the left bank upstream parapet partially collapsed.	
3.	Crack on the upstream wedge requiring stitching.	

4.	Central Arch and downstream spandrel wall of the bridge.	
5.	Surrounding agricultural landscape with works on the bank (silt fence in place)	

6.	Signs of poaching on the right bank upstream of the bridge.	

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APPENDIX C - APPROPRIATE ASSESSMENT STAGE 2: NATURA IMPACT STATEMENT (NIS)

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FLYNN FURNEY
ENVIRONMENTAL CONSULTANTS

Appropriate Assessment Stage 2: Natura Impact Statement

Passlands Bridge (KE-R424-B-010) repair at Monasterevin, Co. Kildare.

Document Details

Client:	**CCC – Clandillon Civil Consultants**
Project Title:	**Natura Impact Statement for Passlands Bridge Repairs, Co. Kildare**
Document Title:	**Passlands Bridge (KE-R424-B-010) repair at Monasterevin, Co. Kildare Natura Impact Statement.**
Prepared by:	**Flynn Furney Environmental Consultants**

Rev	Status	Date	Author(s)	Approved by
01	Draft	15/07/2024	MR	CD
02	Final	17/07/2024	ID	BF

Contents

1 Introduction

Flynn Furney Environmental Consultants have been commissioned by Clandillon Civil Consultants and Kildare County Council for the provision of a Natura Impact Statement (NIS) for the repair of the Passlands bridge (KE-R424-B-010) in Monasterevin, Co. Kildare.

The current authors completed an AA screening report. This report concluded that the risk of a Likely Significant Effect (LSE) upon the qualifying interests of the River Barrow and River Nore SAC could not be definitively ruled out at the screening stage. As such, a Natura Impact Statement is required.

This stage 2 Appropriate Assessment (AA) (Natura Impact Statement (NIS)) is used to determine whether the proposed development would adversely affect the integrity of these European sites. This involves the identification of potential LSE to habitats and or species which form the qualifying interests of these European sites. This report assesses the significance of potential LSE on their conservation status. Negative impacts on the integrity of these habitats or species will require implementing avoidance or mitigation measures to avoid progression to stages 3 and 4. Appropriate Assessment process as defined by the Planning and Development Acts 2000 to 2020.

2 Description of Proposed Works

The project involves the rehabilitation of the Passlands Bridge (KE-R424-B-010) over the River Barrow (IE_EA_07B040400). Proposed works on the bridge are likely as follows:

- **Repointing:** Removing deteriorated mortar from the joints between bricks or stones and refilling them with new mortar.
- **Crack Repair:** Methods may include injecting cracks with epoxy or installing tie rods or steel plates to reinforce the affected area.
- **Stone Replacement:** Damaged or eroded stones are removed and replaced with new stones that match the originals in terms of size, material, and appearance.
- **Addressing Any Water Issues:** Water seepage can be tackled by repairing cracks, clearing drainage channels, and applying waterproofing materials. Vegetation growth on the bridge should also be removed as it can trap moisture and damage the masonry.
- **Metal Component Repairs:** Metal bridge railings, expansion joints, and other components may require repair or replacement to ensure safety and functionality.

The main structural problem requiring repairs is the Masonry repairs needed for the damaged section of the upstream parapet, and stitching repairs are required for the adjacent cutwater.

3 Potential Impacts and Effects

This section examines the potential impacts to Annex I habitats and Annex II species for whom LSE were identified in the AA Screening Report.

3.1 Potential water quality impacts

A worst-case scenario could possibly occur, in which the proposed works would result in a significant detrimental change in the water quality, either alone or in combination with other projects or plans, as a result of indirect pollution sources during clearance or maintenance works.

Water quality impacts have the potential to negatively impact on a range of riverine species, which may directly and indirectly affect Annex I species associated with the SAC.

Releases of sediment/fines to the watercourse could negatively impact gravel spawning beds and water quality, which are important to the above species in bold, namely Freshwater Pearl Mussels, fish species, and the Otter that feeds on them. No Otter holts or evidence were found during the survey, though they are likely present in the river system.

Habitat loss and fragmentation, caused by activities such as soil movement and riverbanks' damage, can significantly impact the white-clawed crayfish (QI). These actions could lead to the loss of adequate burrowing areas within the footprint of the maintenance works. Moreover, silt and pollutants runoff into the River Barrow can degrade surface water quality, which can affect the white-clawed crayfish, which rely on clean, well-oxygenated waters. The effects of such runoff are especially concerning for local watercourses or surface water bodies, given the sensitivity of the river barrow to both pollutants and silt overload and its poor water quality (WDF Q-value: 3).

3.2 Spread of Crayfish Plague

The Crayfish plague is a highly infectious disease caused by the water mould *Aphanomyces astaci*, which severely affects the native White-clawed crayfish. Originating from non-native crayfish species, the disease is almost always fatal to native species. It spreads rapidly through water, direct contact, and contaminated equipment, with infected crayfish dying within days to weeks. The spread of the crayfish

plague can significantly decline native, white-clawed crayfish populations and create over-competition with non-native crayfish species. The disease can further spread downstream and to other water bodies if equipment that comes into contact with infected water is not properly disinfected.

3.2.1 Cumulative Impacts and Effects

A search of the Kildare County Council planning registers was carried out on the 19th of June, 2024. Nearby projects were considered for any in combination or cumulative impacts. In the immediate vicinity, there are a few live development projects that have either received approval or are currently under consideration.

(Planning Reference: DZ24A/0017) the planning area is situated 2 km away. The development was registered on 12/01/2024 and plans the development of 8 two-story dwellings (2 and 3-bed, detached, semi-detached, and terraced) within the existing Ferns Bridge development in Monasterevin, County Kildare. This project, on a 0.23-hectare site, includes all associated site development works and follows previous permits under Refs. 15/1104, 21/267, and 15/1041. The development is located at Ferns Walk, Ferns Bridge, and will not have cumulative impacts as it is situated on the banks of the Grand Canal with no connectivity to the SAC.

It is important to note that these projects, while contributing to the local landscape, have no direct connection to each other and other major developing applications near the proposed Greenway are still on holdup to this date (19th of March 2024).

3.3 Qualify Interests of European Sites and Potential for Impacts

In general, all European sites aim to maintain or restore the favourable conservation status of all quality interests within European sites.

Favorable conservation status of habitat is achieved when:

- its natural range, and the area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

A range of QI species of the River Barrow and River Nore SAC have been identified as ppossibily at risk do to the proposed development. These are detailed below in Table 1.

Table 1: Qualifying Interest and Likely Significant Effect Identified

Qualifying Interest	Nature of Potential Likely Significant Effect Identified
White-clawed Crayfish (*Austropotamobius pallipes*) [1092]	Potential water quality impacts during construction. Potential Spread of Crayfish Plague
Brook Lamprey (*Lampetra planeri*) [1096]	Potential water quality impacts during construction.
River Lamprey (*Lampetra fluviatilis*) [1099]	
Twaite Shad (*Alosa fallax fallax*) [1103]	
Salmon (*Salmo salar* Salmon) [1106]	
Otter (*Lutra lutra*) [1355]	

4 Mitigation Measures

A review of the proposed works' elements indicates potential adverse effects on the qualifying interests of the River Barrow and River Nore SAC in the absence of avoidance and mitigation measures. Mitigation measures are designed to ensure compliance with the Habitats Directive Article 6 requirements.

Mitigation is prescribed to address the impacts such that adverse effects on site integrity of the European site do not occur. Mitigation measures are set out in accordance with the European Commission guidance on the 'Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, (2001).

Mitigation measures are generally aimed at addressing possible risks to water quality from the construction phase of the proposed development. These have been prepared with regard to the following guidance documents:

- IFI (2016) Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters. Inland Fisheries Ireland, Dublin;
- CIRIA Guidelines Control of water pollution from construction sites –Guide to Good Practice (C532); and
- Control of water pollution from linear construction projects. Technical Guidance (C648)

4.1 General Mitigation Measures

- If over one year passes between the date of surveys (15th of March 2024) and the proposed work, further preconstruction surveys should be carried out.
- Site preparation and construction must be confined to the project site only and should adhere to all standard best practice measures. Work areas shall be kept to the minimum required to carry out the proposed works, and the area should be clearly marked out in advance of the proposed works.
- All site staff should be briefed regarding the environmental sensitivity of the site. A Toolbox talk should be held to inform site staff of best practices required in these areas.
- Efficient construction practices and sequences shall be employed on site, and this will minimise soil erosion, clearance and potential pollution of local watercourses with soil and sediment. Unnecessary vegetation clearance shall be avoided, and only areas necessary for repair work shall be cleared.
- In order to protect water quality, all site preparation and construction works shall conform to all guidelines within the document Inland Fisheries Ireland Requirements for the Protection of Fisheries Habitats during Construction and Development Works and River Sites (www.fisheriesireland.ie) and the updated guidelines entitled Guidelines on Protection of Fisheries During Construction Works in And Adjacent to Waters (2016).

4.2 Severe Weather Events

Works should be considerate of severe weather events and should be suspended if any of the following conditions are forecast or occur:

- 10 mm/hr (i.e. high-intensity local rainfall events);
- >25 mm in a 24-hour period (heavy frontal rainfall lasting most of the day) or
- > Half monthly average rainfall in any seven days.

Prior to works being suspended, the following control measures shall be completed:

- Secure all open excavations;
- Provide temporary or emergency drainage to prevent back-up of surface runoff; and,
- Avoid working during heavy rainfall and for up to 24 hours after heavy events to ensure drainage systems are not overloaded.

4.2.1 Management of Suspended Solids and Other Polluting Materials

- Materials and equipment to implement the Spill Response and control Plan (for example, spill kits and booms) must be available adjacent to all watercourses. These should be in clearly marked response points that can be accessed by all staff.
- Any diesel or fuel oils stored on site must be bunded to 110% of the capacity of the storage tank. Fuel tank design and installation must follow best practice guidelines BPGCS005, oil storage guidelines.
- Drip trays will be utilized on-site for pumps and equipment situated within 25m of the watercourse, and spill kits will be available at these locations for the duration of the contract. Any used spill kits will be disposed of using a hazardous waste disposal contractor and in accordance with all relevant EU and Irish waste management legislation;
- No storage of equipment should take place within 15 meters of the River
- All hazardous substances on-site shall be controlled within an enclosed storage compound that shall be locked when not in use to prevent theft and vandalism;
- No refuelling should occur within 25m of the river.
- Concrete mixing will not occur within 25m of the water course

- No washings or waste materials of any kind can be directed into the nearby drains or into the river (including concrete washout)
- No stockpiling of excavated material should take place anywhere on the site, given the steeply sloping nature of the banks. All excavated material should be removed from the site immediately.
- All excavation equipment should be in good working order and checked daily for any hydraulic leaks/oil leaks. It should not be used unless in good working order.
- Any area of exposed soil left after the works are completed should be replaced with an appropriate native hedge row species at the end of the project.

4.3 Control of the Spread of Crayfish Plague

Disinfect Equipment: Thoroughly clean and disinfect all equipment, including boots, fishing gear, and boats, after use in any water body. Use appropriate disinfectants such as Virkon Aquatic or a bleach solution (2%).

Dry Equipment: Ensure all equipment is dried completely for at least 48 hours before being used in a different water body. Crayfish plague spores can survive in damp conditions but not in dry environments.

Avoid Transfer of Water: Do not transfer water, plants, or animals between water bodies. Always empty and clean bait buckets and containers away from any water sources.

Check, Clean, Dry Campaign[1]Follow the 'Check, Clean, Dry' steps:

- **Check:** Remove any visible plants, mud, or animals from equipment and clothing.
- **Clean:** Wash equipment thoroughly, paying special attention to crevices.
- **Dry:** Dry everything for as long as possible.

5 Residual Impacts

An overview of the potential Impacts and Effects and the mitigation measures proposed for possibly

[1] https://invasives.ie/biosecurity/check-clean-dry/

affected European sites are presented above. Taking account of the relative ease of implementation of these mitigation measures and the limited scale of the proposed development, there can be a high level of confidence in their efficacy and success. It is considered that there is no potential for residual adverse effects on these Annex I habitats, Annex II species or the overall habitat quality and integrity of the River Barrow and River Nore SAC or any other connected European site as a result of the proposed development.

5.1 Natura Impact Statement & Conclusion

This NIS has reviewed the impacts arising from the proposed project and found that following a Stage 1 Screening Assessment, it was determined that without implementing mitigation measures, significant effects could impact the integrity of the River Barrow and River Nore SAC could not be definitively ruled out. Therefore, a Stage 2 NIS was carried out. This concluded:

Based on the assessment of the proposed development alone and in combination with other projects and plans, including the implementation of mitigation measures, it can be concluded that no adverse effects on the site's integrity will arise in view of the site's conservation objectives.