Inspector's Report
ABP-309349-21

Development	Monasterevin Bridge remedial works
Location	Monasterevin, Co. Kildare
Local Authority	Kildare County Council
Type of Application	Application for approval made under Section 177(AE) of the Planning and Development Act, 2000 (local authority development requiring appropriate assessment)
Prescribed Bodies	Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media
Observer(s)	None
Date of Site Inspection	14th April 2021
Inspector	Donal Donnelly

Contents

1.0 Introduction

1.1. Kildare County Council is seeking approval from An Bord Pleanála to undertake remedial works to the Monasterevin Bridge in Monasterevin, Co. Kildare. Monasterevin Bridge is located within the River Barrow and River Nore SAC, which is a designated European Site. A Natura Impact Statement (NIS) and application under Section 177AE of the Planning and Development act 2000 (as amended) was lodged by the Local Authority on the basis of the proposed development's likely significant effect on a European site.

1.2. Section 177AE states that where an appropriate assessment is required in respect of development by a local authority, the authority shall prepare a NIS and the development shall not be carried out unless the Board has approved the development with or without modifications. Furthermore, Section 177V of the Planning and Development Act 2000, (as amended) requires that the appropriate assessment shall include a determination by the Board as to whether or not the proposed development would adversely affect the integrity of a European Site and the Appropriate Assessment shall be carried out by the Board before consent is given for the proposed development.

2.0 Proposed Development

2.1. The proposed remedial works are necessary to repair scour induced damage to the bridge structure and will include the following:

- Remedial repair works to piers and cutwater – removal of defective sections of concrete cutwater, dismantling displaced masonry, grouting voids, reinstatement of displaced masonry and renewal of concrete cutwater.
- Localised vegetation removal and pointing of opening joints – dismantling will be carried out to remove embedded roots.
- Rock armour protection to the east embankment of the river.

2.2. **Accompanying documents:**

- Public Notices,

- Appropriate Assessment Screening Report,
- Natura Impact Statement,
- Biodiversity Assessment,
- Architectural Heritage Impact Assessment,
- EIAR Screening Assessment,
- Preliminary Remedial Works Report,
- Remedial Methodology,
- Design drawings

3.0 Site and Location

3.1. Monasterevin Bridge is located to the south-west of the town of Monasterevin in western Co. Kildare. The bridge carries the R445 Regional Route which is the main approach road to the town from the direction of Portlaoise. The R445 was previously the N7 National Route before the opening of the M7 in 2004. Monasterevin Bridge is one of a number of bridges over the River Barrow in the town; the older Pass Bridge is approximately 1km upstream to the north and there is a rail bridge and aqueduct in between.

3.2. Monasterevin Bridge continues for a distance of approximately 40m over the River Barrow. The carriageway is 6.5m wide and there are double yellow lines and narrow footpaths on both sides. An apartment development is situated to the north-east of the bridge and there are wooded areas to the south. These wooded areas and the river channel are within the River Barrow and River Nore SAC.

3.3. The bridge has a Regional rating in the National Inventory of Architectural Heritage and is described as follows:

> *Five-arch cut-stone road bridge over river, c.1780, with semi-circular cut-waters/piers, cut-stone voussoirs and cut-stone coping to parapet walls. Coursed cut-stone walls. Cut-stone semi-circular cut-waters/piers to north-west and to south-east with stringcourses and half-domed capping. Cut-stone coping to parapet walls. Five elliptical arches. Cut-stone voussoirs.*

Rubble stone soffits with render over. Sited spanning River Barrow with grass banks to river.

3.4. The following Appraisal of the bridge is contained in the NIAH:

Monasterevin 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 construction of the arches that have retained their original shape is of technical and engineering merit. The bridge exhibits good quality stone masonry and fine, crisp joints. The bridge is of considerable historical and social significance as a reminder of the road network development in Ireland in the late eighteenth century.

4.0 Planning History

4.1. No relevant planning history.

5.0 Legislative and Policy Context

5.1. **The EU Habitats Directive (92/43/EEC):** This Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) and 6(4) requires an appropriate assessment of the likely significant effects of a proposed development on its own and in combination with other plans and projects which may have an effect on a European Site (SAC or SPA).

5.2. **European Communities (Birds and Natural Habitats) Regulations 2011:** These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in CJEU judgements. The Regulations in particular require in Reg. 42(21) that where an appropriate assessment has already been carried out by a 'first' public authority for the same project (under a separate code of legislation) then a 'second' public authority considering that project for appropriate assessment under its own code of legislation is required to take account of the appropriate assessment of the first authority.

5.3. **National nature conservation designations:** The Department of Housing, Local Government and Heritage and the National Parks and Wildlife Service are responsible for the designation of conservation sites throughout the country. The three main types of designation are Natural Heritage Areas (NHA), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and the latter two form part of the European Natura 2000 Network.

5.4. European sites located in proximity to the subject site include:

- River Barrow and River Nore SAC (Site code: 002162)

5.5. **Planning and Development Acts 2000 (as amended):** Part XAB of the Planning and Development Acts 2000-2017 sets out the requirements for the appropriate assessment of developments which could have an effect on a European site or its conservation objectives.

- 177(AE) sets out the requirements for the appropriate assessment of developments carried out by or on behalf of local authorities.
- Section 177(AE) (1) requires a local authority to prepare, or cause to be prepared, a Natura impact statement in respect of the proposed development.
- Section 177(AE) (2) states that a proposed development in respect of which an appropriate assessment is required shall not be carried out unless the Board has approved it with or without modifications.
- Section 177(AE) (3) states that where a Natura impact assessment has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval and the provisions of Part XAB shall apply to the carrying out of the appropriate assessment.
- Section 177(V) (3) states that a competent authority shall give consent for a proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site.
- Section 177AE (6) (a) states that before making a decision in respect of a proposed development the Board shall consider the NIS, any submissions or observations received and any other information relating to:

- The likely effects on the environment.
- The likely consequences for the proper planning and sustainable development of the area.
- The likely significant effects on a European site.

5.6. Kildare County Development Plan, 2017-2023

5.6.1. Monasterevin Bridge is listed in the Development Plan as a protected structure (ref: B26-38). The Monasterevin Architectural Conservation Area is located to the east of Monasterevin Bridge. The bridge itself is not within the ACA.

5.6.2. Policy PS 7 of the Development Plan seeks to *"promote best practice and the use of skilled specialist practitioners in the conservation of, and any works to, protected structures. Method statements should make reference to the DAHG Advice Series on how best to repair and maintain historic buildings. As outlined in the Architectural Heritage Protection Guidelines, DAHG, a method statement is a useful tool to explain the rationale for the phasing of works. The statement could summarise the principal impacts on the character and special interest of the structure or site and describe how it is proposed to minimise these impacts. It may also describe how the works have been designed or specified to have regard to the character of the architectural heritage."*

5.6.3. Policy NH 5 seeks to *"prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the county and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive."*

5.7. Monasterevin Local Area Plan 2016-2022

5.7.1. Monasterevin Bridge is located between lands zoned for "open space and amenity" and "town centre".

5.7.2. It is a policy of the LAP (SR 1) *"to continue to maintain and improve as required the local road network to ensure a high standard of road quality and safety."* Monasterevin Bridge is part of a route indicated on Map 2 of the LAP for street/ road improvement works.

5.7.3. Map 3 of the LAP shows the site located within the 1000 year flood zone established by detailed Flood Risk Assessment.

5.8. Architectural Heritage Protection Guidelines for Planning Authorities, 2004

5.8.1. These Guidelines recognise that there is a rich heritage of bridges throughout the country that requires careful consideration when any repair or alteration work is proposed. It is noted that protected structures may contain features of special interest such as abutments, parapets, cut-waters and paving, and such features should be identified and preserved. During the consideration of proposals regarding bridges, efforts should be made to ensure that the least possible structural and visual damage is caused to the bridge.

6.0 The Natura Impact Statement and Associated Documents

6.1.1. The application was accompanied by a Natura Impact Statement for the proposed bridge remediation works dated 20th March 2020. An Appropriate Assessment Screening Report was also prepared on 8th May 2019. Other documents that accompany the planning application include a Biodiversity Assessment, an Environmental Impact Assessment Screening Report, a Preliminary Remedial Works Report, Remediation Methodology, an Architectural Heritage Impact Assessment and a design drawing package.

6.1.2. In general, I am satisfied that the NIS for the proposed bridge remediation works adequately describes the proposed development, the project site and the surrounding area. The Stage 1 Screening concluded that a Stage 2 Appropriate Assessment (NIS) was required. The NIS outlined the methodology used for assessing potential impacts on the habitats and species within the European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for the site and its conservation objectives, suggested mitigation measures, assessed in-combination effects with other plans and projects and identified any residual effects on the European sites and their conservation objectives.

6.1.3. The NIS was informed by the following studies, surveys and consultations:

- Desk review including the following:
    - Consultation with NPWS, IFI and EPA publicly available sources,
    - Consultation with National Biodiversity Data Centre online database,
- Field based studies undertaken on 13th and 14th September 2019 to include the following:
    - Habitat surveys,
    - Mammal surveys (including otters),
    - Aquatic ecology surveys,
    - Bird surveys,
    - General protected species surveys,
    - Bat survey.

6.1.4. The conclusion reached in the NIS is that there is potential for likely significant effects to the River Barrow and River Nore SAC arising from impacts on water quality, invasive species and disturbance. However, with implementation of mitigation measures in full, it is considered, beyond reasonable scientific doubt, that no adverse effect will result to the integrity of the European site in light of the conservation objectives of that site.

6.1.5. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge. Details of mitigation measures are provided, and they are summarised in the NIS. I am satisfied that the information is sufficient to allow for appropriate assessment of the proposed development (see further analysis below).

7.0 **Consultations**

7.1. The application was circulated by the applicant to the following bodies:

- Office of Public Works
- Health & Safety Authority

- National Transport Authority
- Fáilte Ireland
- An Taisce
- Transport Infrastructure Ireland
- Department of Housing, Local Government and Heritage
- Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media
- Department of Environment, Climate and Communications
- Department of Transport
- Inland Fisheries Ireland
- The Heritage Council
- Environmental Protection Agency
- An Chomhairle Ealaíon

7.2. The following responses were received by the Board:

7.3. **Department of Environment, Climate & Communications (GSi):**

7.3.1. Geological Survey Ireland has no specific observations to make.

7.4. **Department of Environment, Climate & Communications (NPWS):**

7.4.1. NPWS submitted that it is not in a position to provide nature conservation observations/ recommendations at this time.

7.5. **Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media**

7.5.1. The Development Applications Unit coordinated the following archaeological observations/ recommendations on the proposal:

- Proposed works are within an area of underwater archaeological potential and as a condition of any permission, an Underwater Archaeological Impact Assessment should be compiled as follows:
    - Suitably qualified archaeologist shall carry out underwater archaeological assessment of the development site/ proposed programme of works to the specifications advised by the Department.
    - Archaeologist should carry out relevant documentary research, inspect the site and carry out a dive survey.
    - Written report shall be submitted to the Planning Authority and Department. Where archaeological materials/ features are shown to be present, preservation *in situ*, preservation by record (excavation), avoidance or monitoring may be required, and the Department shall advise should such matters arise.

7.6. **Public Submissions:**

7.6.1. None received.

8.0 Assessment

8.1. **The likely consequences for the proper planning and sustainable development of the area:**

8.1.1. Monasterevin Bridge is a protected structure constructed c. 1780 that comprises of a stone-cut road bridge over the River Barrow. The R445 (old N7) continues over the bridge and there are footpaths on both sides. The bridge contains five arches and semi-circular cut-waters/ piers.

8.1.2. Kildare County Council is seeking permission from the Board for remediation works at Monasterevin Bridge. The purpose of the project is to refurbish and improve the structural condition of Monasterevin Bridge and to repair the deteriorating structure as identified in a condition survey.

8.1.3. Scouring of bridge foundations has resulted in dislodgement of masonry and cracking of concrete within the piers that support the structure. The original masonry

cutwaters were previously encased in concrete. Repair works will involve the replacement of damaged sections of concrete cutwater and repair/ reconstruction of displaced masonry. Underpinning and repair work to the concrete skirt that protects the piers will include insertion of stainless-steel dowel bars and sleeves. The failing masonry cutwater will be knocked and rebuilt.

8.1.4. Other repair works will include masonry repointing and repair, parapet repair and repointing, relaying of bridge surface, reconstruction of riverbed under certain arches, removal of vegetation from embankments, removal of trees, masonry structure repair to the eastern bank, rock armour installation along a 15m section of the south-eastern bank, installation of a new 225mm diameter culvert outlet, and concrete retaining wall repair to south-west.

8.1.5. It is a policy as set out in the Monasterevin Local Area Plan, 2016-2022 *"to continue to maintain and improve as required the local road network to ensure a high standard of road quality and safety."* Monasterevin Bridge is part of a route indicated on Map 2 of the LAP for street/ road improvement works. The proposed works are essential and necessary to safeguard the structural condition of a river crossing on this Regional Road. Subject to an assessment of the proposal on the surrounding environment and European sites, I consider that the proposed bridge remediation works are acceptable in principle.

8.2. The likely effects on the environment

8.2.1. Having regard to the nature and scale of the proposed development, I consider that the main environmental effects to be assessed, other than those covered under the Appropriate Assessment, are as follows:

- EIA Screening Determination
- Biodiversity
- Cultural heritage
- Flooding

EIA Screening Determination

8.2.2. The proposed development described as maintenance and remediation works on Monasterevin Bridge (protected structure) is not of a development type for the purposes of Part 10 listed in Schedule 5 of the Planning and Development Regulations, 2001 (as amended). Furthermore, the proposal does not fall under any prescribed type of road development pursuant to Section 50 Roads Act, 1993 (as amended) that requires the preparation of an Environmental Impact Assessment Report.

8.2.3. Section 2.3.3 of the "Environmental Impact of National Road Schemes – Practical Guide" in relation to the Consideration of Environmentally Sensitive Sites states that if a proposed sub-threshold road scheme would be located on an environmentally sensitive site, the road authority shall decide whether it would or would not be likely to have significant environmental impacts. In this regard, it is stated that in cases *"where the road authority concludes that significant environmental impacts are likely, it informs An Bord Pleanála, and, where the Board concurs, it issues a direction to the road authority to prepare an EIS. It is important to note that where the road authority considers that significant environmental effects are not likely, there is no requirement to inform the Board. However, in such circumstances, the grounds for the road authority's conclusion should be recorded."*

8.2.4. An EIAR Screening Assessment has been prepared on behalf of the Kildare County Council to determine whether an EIAR is warranted for the proposed project. This document investigates whether the project has significant negative impacts on the environment having regard to its characteristics, location and type and characteristics of the potential impact. It is considered within the screening decision of the report that the proposed project, by itself and in combination with other plans and projects, will have an overall impact on the receiving environment which is considered to be low. It is not therefore considered that an EIAR for the project is required.

8.2.5. Kildare County Council has therefore been advised that significant environmental impacts are not likely, notwithstanding the fact that Appropriate Assessment Screening concluded that an NIS was necessary. I am therefore in agreement that it

is not therefore necessary to inform the Board and Kildare County Council's conclusion is recorded within the EIAR Screening Assessment of January 2021.

Biodiversity

8.2.6. The planning application is accompanied by an Appropriate Assessment Screening Report, a Natura Impact Assessment and a Biodiversity Assessment. The Board is advised that an Appropriate Assessment is carried out in Section 8.4, which considers if the proposed bridge remediation works, individually or in combination with other plans and projects, would adversely affect the integrity of any European site in view of each relevant site's Conservation Objectives.

8.2.7. The Biodiversity Assessment was informed by surveys of habitat, mammals (including bats), aquatic ecology and birds carried out on 13th to 14th September 2019. Habitats were identified following 'A Guide to Habitats in Ireland' (Fossitt, 2000) and with regard to 'Best Practise Guidance for Habitat Surveying and Mapping' (Smith *et. al.,* 2011).

8.2.8. The proposed development includes both instream and out of stream works on the walls of the bridge structure, and on embankments and the surface of the road. Overgrowth on the upstream and downstream embankments will be cut back and vegetation on the structure surface and joints will be removed before high pressure jet cleaning, raking and pointing. Removal of debris and regrading of the riverbed will be carried out under two bridge arches and works to piers will require dry areas created by sheet piling. Silt curtains will be installed to prevent grout from entering the water and cast in-situ concrete will be required for new concrete skirting. The wall at the collapsed outfall on the downstream eastern bank will be reconstructed with rock armour over a length of 15m, with a dry area created using sandbags.

8.2.9. The River Barrow forms part of the River Barrow and River Nore SAC and the qualifying interests of this site are discussed in Section 8.4. The EPA monitor water quality at the next bridge located 1km upstream of Monasterevin Bridge. This site was rated as Q3-4 (Moderate) in 2017. The Monasterevin Wastewater Treatment Plant is downstream of Monasterevin Bridge on the western bank.

8.2.10. In terms of habitat and flora in the vicinity of the bridge, there is mixed broadleaved woodland on the right bank of the river downstream of the bridge. Treelines also

occur for approximately 100m on the left bank opposite. Other habitat identified in the vicinity of the bridge includes amenity grassland (improved), dry meadows and grassy verges, ornamental/ non-native shrub, buildings and artificial surfaces and earthbanks. Japanese knotweed occurs upstream of the bridge on the left bank.

8.2.11. No otter holts or badger setts were recorded at the site. There was no evidence of bats found within any bridge crevices; however, a small number of bat droppings were recorded on flat surfaces underneath the bridge. Three bat species were recorded during a survey and activities were considered to be low-moderate. The bridge has potential for bats and a bat derogation licence and mitigation for bats will be required to works on the bridge as a precaution.

8.2.12. There were no sightings of Kingfisher during the survey and there is no potential nesting habitat for this species in the stretch of river 100m upstream and downstream of the bridge.

8.2.13. It is stated in the Biodiversity Assessment that the likely cause of poorer fish stocks is mainly due to poor water quality, poor habitat, barriers impeding migratory fish passage and competition with invasive Dace. There is potential for the presence of brook lamprey and juvenile salmon at the site; however, habitat is suboptimal, and no spawning habitat was present.

8.2.14. Potential impacts on biodiversity, as outlined in the Biodiversity Assessment, could occur from removal of vegetation overgrowth; spread of invasive Japanese Knotweed; direct disturbance of otter; increase in suspended solids and accidental spillages impacting on water quality in the River Barrow; disturbance of bat commuting and roosting; and disturbance of birds during construction.

8.2.15. Mitigation measures include the appointment of a site ecologist to monitor works and compliance with mitigation and the method statement, which will include information on timing of works, limiting access outside of works area, biosecurity protocols and water quality protection measures. Emergency measures will also be planned to show how the site can be demobilised in the event of a flood. A single access will be used to access the riverbed, and this will limit the area of riparian habitat disturbance. Regular daylight working hours will prevent disturbance to nocturnal mammal activity and a bat derogation licence will be sought. The bridge will also be

surveyed for bats prior to commencement of works and vegetation removal will not take place during the bird breeding season.

8.2.16. Strict mitigation measures will be required to protect water quality and aquatic ecology. Works will be undertaken before the salmonid close season, which begins at the end of September, and the lamprey spawning season will also be avoided (May to early July). Other mitigation measures for water quality include bunded storage for oils and fuels; provision of a minimum 10m buffer from compound to river; placement of sandbags and silt fences within works area; translocation of any fish caught behind dammed area; agreement of 5-day weather window of low flow conditions; emergency contingency plan for flood events; specific storage and mixing areas for concrete and site-specific method statement for waste management; and daily on-site monitoring by ecologist of suspended solids and inspection of silt curtains, sandbags and dewatered areas.

8.2.17. Subject to the strict compliance with the mitigation measures put forward within the Biodiversity Assessment and Natura Impact Assessment, I would be satisfied that the proposed development will not give rise to any significant effects on biodiversity. Method statements for project works will be prepared and a project ecologist will be appointed to monitor works on a daily basis and to ensure that all mitigation measures are properly implemented. The project ecologist will also have the power to suspend works if mitigation is not functioning adequately to minimise the potential impact on local ecology.

Cultural Heritage

8.2.18. The Development Applications Unit of the Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media note that the works are within an area of underwater archaeological potential and as a condition of any permission, an Underwater Archaeological Impact Assessment should be compiled. This shall include an inspection of the site, including a dive survey and relevant documentary research to inform a written report to be submitted to the Planning Authority and Department. I consider that a condition can be attached to any grant of permission to facilitate the preservation, recording, protection and removal of any archaeological materials/ features that may exist.

8.2.19. Monasterevin Bridge is a protected structure and Policy PS 7 of the Kildare County Development Plan seeks to *"promote best practice and the use of skilled specialist practitioners in the conservation of, and any works to, protected structures. Method statements should make reference to the DAHG Advice Series on how best to repair and maintain historic buildings. As outlined in the Architectural Heritage Protection Guidelines, DAHG, a method statement is a useful tool to explain the rationale for the phasing of works. The statement could summarise the principal impacts on the character and special interest of the structure or site and describe how it is proposed to minimise these impacts. It may also describe how the works have been designed or specified to have regard to the character of the architectural heritage."*

8.2.20. The planning application is accompanied by an Architectural Heritage Impact Assessment, which includes a description of the works and a special interest heritage appraisal. It is concluded in the Architectural Heritage Impact Assessment that the proposed works will not have an adverse impact on the heritage special interest value of the protected structure. It also is noted that the works will not alter the bridge structure or its contribution to the entrance character of the town. The method statement (Remediation Methodology) sets out details for the installation of rock armour, repair of the concrete skirt and de-vegetation and repointing of masonry. As noted in the Architectural Heritage Impact Assessment, the maintenance of the rock armour alignment at the level of the concrete cutwater to provide a planted area in front of the wall will minimise the impact along the river edge. Furthermore, localised invasive work will minimise impact and the use of appropriate materials will be compatible with the historic masonry structure. Careful consideration will be given to lime pointing mortar for the different conditions present in the wet, damp or wet/ dry cycle zone of construction.

8.2.21. Overall, I would be satisfied that the proposed works are essential to maintain the structural integrity of a bridge that is recognised for its architectural, historic and social heritage value. Proposed works and alterations will be locally invasive; however, efforts have been made to ensure that the least possible structural and visual damage is caused to the bridge.

Flooding

8.2.22. The subject site is located within the 1,000 year flood zone established by detailed Flood Risk Assessment. Notwithstanding this, the applicant confirms that the proposed remedial works will not have any impact upon freshwater courses within the vicinity of the works. Furthermore, the proposed works will not give rise to any flooding or impact adversely upon adjoining lands.

8.2.23. The River Barrow is a spate river meaning that it is variable in character and can contain more water and faster flows within a short period of time. Measures will be put in place to minimise the risk of the proposed works in the river being affected during a flood event. The site ecologist will agree a 5-day weather window of low-flow conditions prior to any in-stream works occurring. An emergency contingency plan will be drawn up to remove sandbags put in place to deal with suspended solids, in the event of a flood. Works will be carried out to one pier at a time so that fewer sandbags will need to be removed and there will be less risk associated with the release of silt. The site compound will also be designed to address significant rainfall events and the containment of the site using silt fences will be overseen by the site ecologist.

8.2.24. In general, I am satisfied that the nature and extent of the proposed development will not give to increased risk of flooding. There is potential for the proposed works to be affected by flood events during the construction phase. However, I consider that adequate measures are set out within application documentation to address these issues.

8.3. The likely significant effects on a European site (Appropriate Assessment)

8.3.1. The areas addressed in this section are as follows:

- Compliance with Articles 6(3) of the EU Habitats Directive
- Geographical Scope and Main Characteristics
- Screening the need for Appropriate Assessment
- Appropriate Assessment of implications of the proposed development on European Site

8.3.2. **Compliance with Articles 6(3) of the EU Habitats Directive:** The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

8.3.3. The proposed development comprises remediation works at Monasterevin Bridge, which crosses the River Barrow in Monasterevin, Co. Kildare. The proposal is not directly connected with or necessary to the management of any European site and is therefore subject to the provisions of Article 6(3).

8.3.4. **Geographical Scope and Main Characteristics**

8.3.4.1. The proposed bridge remediation works to Monasterevin Bridge are primarily required to address the problem of scouring within the riverbed and associated impacts around and under the foundations of the bridge. Bridge piers change the direction of flow and this produces a horseshoe vortex extending around the sides of the pier causing scouring. Cracks have now appeared in concrete skirts and masonry within the cutwaters is beginning to fail.

8.3.4.2. The proposed remediation works will consist of repair work to the piers and cutwaters that will require the removal of defective sections of concrete cutwater, dismantling of displaced masonry, grouting of voids, reinstatement of displaced masonry and renewal of concrete cutwaters. Dry works areas for each pier will be created with sheet piling and one pier will be worked on at a time. Silt curtains will be installed to prevent grout from accidentally entering the water in these areas, and silt bags will be used if dewatering is required. New concrete skirts to protect piers will comprise of cast-in-situ concrete.

8.3.4.3. Scouring is also occurring on the downstream eastern bank along a 15m section. Rock armour installation is proposed at this location that will include regrading of the embankment, digging of a toe trench and laying of 300mm thick rock armour layer

over 130mm underlayer and geotextile. Sandbags/ silt fences will be used to divert river flow from the works area and silt bags will be used if dewatering is required.

8.3.4.4. Other works that are proposed include removal of vegetation and masonry repointing; lifting and reinstatement of capping to remove vegetation growing underneath; eradication of Japanese Knotweed; de-vegetation and cut-back of overgrowth at upstream and downstream embankments; removal of tree at upstream east embankment; reconstruction of an outfall pipe and wall on the east downstream bank; resurfacing of road on bridge; and removal of instream debris and regrading of riverbed under Arches 1 & 4.

8.3.5. **Screening the need for Appropriate Assessment**

8.3.6. The first test of Article 6(3) is to establish if the proposed development could result in likely significant effects to a European site. This is considered stage 1 of the appropriate assessment process, i.e., *screening.* The screening stage is intended to be a preliminary examination. If the possibility of significant effects cannot be excluded on the basis of objective information, without extensive investigation or the application of mitigation, a plan or project should be considered to have a likely significant effect and Appropriate Assessment shall be carried out.

8.3.7. Having regard to the information and submissions available, the nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors, the European Sites set out in Table 1 below are considered relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects. A 15km study area from the proposed development is applied for this purpose, wherein a total of three European Sites are included (3 SAC's).

8.3.8. European sites considered for Stage 1 screening:

European site (SAC/SPA)	Site code	Distance to subject site	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
River Barrow and River Nore SAC	002162	Within/ adjoining	Potential connections	Y

European site (SAC/SPA)	Site code	Distance to subject site	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
Mountmellick SAC	002141	13km	Upstream - no connection	N
Pollardstown Fen SAC	000396	14.5km	Upstream – no connection	N

Table 1 – Summary Table of European Sites considered in Screening for Appropriate Assessment

8.3.9. Based on my examination of the Appropriate Assessment Screening Report and NIS, together with other supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distances and functional relationships between the proposed works and the European sites, their conservation objectives, and taken in conjunction with my assessment of the subject site and the surrounding area, I conclude that a Stage 2 Appropriate Assessment is required for the following European Site in view of the conservation objectives of those sites:

- River Barrow and River Nore SAC

8.3.10. Table 2 below provides a screening summary matrix where there is a possibility of significant effects, or where the possibility of significant effects cannot be excluded without further detailed assessment.

Site name **Qualifying Interest feature**	**Is there a possibility of significant effects in view of the conservation objectives of the site?** **General impact categories presented**		
	Habitat loss/ modification	Water quality and water dependent habitats (pollution)	Disturbance/ displacement barrier effects
River Barrow and River Nore SAC **Special Conservation Interests:** 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]	Yes Risk of direct habitat loss for Special Conservation Interest species due to location and nature of proposed works (i.e. reconstruction of riverbed). Risk of indirect habitat loss as a consequence of severe habitat degradation arising from reduction in water quality. Potential for invasive species to spread or be introduced to downstream habitats.	Yes Potential for release of contaminated surface water run-off and/ or accidental spillage or pollution event during construction. Temporary alteration to waterbody flow rates/ direction during construction could result in degradation of freshwater aquatic/ wetland habitat downstream of proposed works and indirectly the species that the habitat may support.	Yes Temporary increase in noise/ vibration and human activity during construction could disturb/ displace fauna, e.g., Otter.

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]			

Margaritifera durrovensis (Nore Pearl Mussel) [1990]			

Table 2 Screening summary matrix: European Sites for which there is a possibility of significant effects (or where the possibility of significant effects cannot be excluded without further detailed assessment)

8.3.11. I am satisfied that no additional sites other than those assessed in the NIS (River Barrow and River Nore SAC) need to be brought forward for Appropriate Assessment. I confirm that no mitigation has been taken into account at the screening stage.

8.4. Appropriate Assessment of implications of the proposed development on each European Site

8.4.1. The following is an assessment of the implications of the project on the relevant conservation objectives of the European site using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are identified and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed.

8.4.2. I have relied on the following guidance:

- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service.
- EC (2002) 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/EC
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC

8.4.3. Relevant European site: The following site is subject to appropriate assessment.

- River Barrow and River Nore SAC (Site code: 002162)

8.4.4. A description of this site and its Conservation Objectives and Qualifying Interests, including any relevant attributes and targets for these sites, are set out in the NIS and outlined in Table 3 below. I have also examined the Natura 2000 data forms as relevant and the Conservation Objectives supporting documents for these sites available through the NPWS website (www.npws.ie).

8.4.5. **Aspects of the proposed development:** The main aspects of the proposed development that could adversely affect the conservation objectives of the European sites include:

- Loss of, or disturbance to habitats or species,
- Potential Impairment of water quality,
- Invasive species.

8.4.6. **Tables 3** summarises the appropriate assessment and site integrity test. The conservation objectives, targets and attributes as relevant to the identified potential significant effects are examined and assessed in relation to the aspects of the project (alone and in combination with other plans and projects). Mitigation measures are examined, and clear, precise and definitive conclusions reached in terms of adverse effects on the integrity of European sites.

8.4.7. Supplemental to the summary tables, any key issues that arose through consultation and through my examination and assessment of the NIS are expanded upon in the text below:

Table 3

River Barrow and River Nore SAC (Site code: 002162)

Key Issues:

- Loss of, or disturbance to habitats or species
- Potential impairment of water quality
- Invasive species

Conservation Objectives: Site_specific_cons_obj (npws.ie)

		Summary of Appropriate Assessment			
Conservation Objective: To maintain the favourable conservation condition of the following:	Targets & Attributes (as relevant)	Potential adverse effects	All Mitigation Measures	In-combination effects	Can adverse effects on site integrity be excluded?
White Clawed Crayfish [1092]	No reduction from baseline distribution, juveniles and/ or females with eggs in at least 50% of positive samples, no alien crayfish and no instances of disease, sampling of water quality by EPA, no decline in habitat	Crayfish plague has already affected the River Barrow. No direct impacts as crayfish are not present at the site. Potential indirect impacts may arise in relation to downstream water quality, (increased suspended solids, and accidental spillages).	*Best practice procedures and guidelines* and appointment of ecologist to monitor works and compliance with mitigation. *Avoidance* through limitation to a single access route to minimise footprint of works. Works area will be surrounded by silt fences and sand bags and	Potential for in-combination impacts in terms of background water quality pressures such as the storm water overflow from the Monasterevin WWTP.	Yes Due to mitigation measures, best practice measures and implementation of monitoring scheme, no adverse effects water quality or the designated conservation interests of the European sites will occur.

	heterogeneity or habitat quality.	Plant habitats or other macroinvertebrates, which crayfish feed on, could be impacted if small section of Japanese Knotweed on site spreads. Crayfish present at the site could be transported to other catchments via machinery.	appropriate set backs to sensitive ecological sites. *Water quality protection* by refueling away from river; storage of fuels in bunded tanks; agreement of 5-day low flow weather window; Emergency Contingency Plan for flood events; carrying out of works at a single pier/ arch at a time; overseeing and monitoring of dry works area by site ecologist; control of concrete mixing within compound; and installation of silt bags for any pumping out of water from works area. *Biosecurity* measures following NRA and IFI guidelines. Eradication of small section of Japanese Knotweed and sterilising of all equipment/ work gear to ensure no spread of crayfish plague. *Site Ecologist* to ensure method statement complies with relevant mitigation, including limitation of access to works area, timing of works, water quality protection measures and biosecurity protocols.		Proposed works are limited in scale and, subject to mitigation, will not adversely affect the conservation objectives of the SAC.

			Mitigation to protect water quality and to prevent the spread/ introduction of invasive species and crayfish plague.		
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	No decline in habitat distribution; stable/ increasing habitat area; maintain appropriate hydrological regime; groundwater flow to habitat should be permanent and sufficient to maintain tufa formation; maintain appropriate sub-stratum, water chemistry, water quality, typical species and floodplain connectivity.	Floating river vegetation not present at the site but may be present downstream and could therefore be impacted by cumulative water quality impacts (suspended solids/ accidental spillages) Habitats could be impacted if small section of Japanese Knotweed on site spreads.	Water quality protection and biosecurity mitigation for protection of aquatic species sufficient to avoid potential impacts on downstream habitat if present.		
To restore the favourable conservation condition of the following:					
Sea Lamprey [1095] Brook Lamprey [1096] River Lamprey [1099]	Greater than 75% of main stem length of rivers accessible from estuary (Sea Lamprey), access to all watercourses down to 1st order	Some areas of site hold suitable lamprey habitat (silted areas) – brook lamprey likely present in low densities at proposed works site.	Mitigation measures to ensure water quality is protected and there is a safe passage for lampreys during works.	Potential for in-combination impacts in terms of background water quality pressures such as the storm water	

	streams (Brook Lamprey) and greater than 75% of main stem and major tributaries down to second order accessible from estuary (River Lamprey); at least 3 age/ size groups present; juvenile density at least 1/m2 (Sea Lamprey) and 2/m2 (Brook and River Lamprey); no decline in extent and distribution of spawning beds; more than 50% of sample sites positive.	Sea and river lamprey unlikely due to downstream weirs acting as barriers to fish migration. No lamprey spawning habitat likely. Potential for direct disturbance impacts from instream works, direct water quality impacts and dewatering. Aquatic habitats could be impacted if small section of Japanese Knotweed on site spreads.	Works will be undertaken outside of lamprey spawning season. *Habitat enhancement:* Placement of line of random small boulders instream under the outer arches to create/ improve habitat for lamprey and eels.	overflow from the Monasterevin WWTP.	
Atlantic Salmon [1106]	100% of river channels down to 2nd order accessible from estuary, conservation limit for each system consistently exceeded, maintain or exceed 0+ fry mean catchment-wide abundance threshold value-currently set at 17 salmon fry/5 minutes sampling,	Some potentially suitable spawning habitat (marginal habitat only) downstream of bridge site. Instream works have potential to result in direct water quality and disturbance impacts. Water quality impacts may arise due to increase in suspended solids (background levels	Mitigation required to limit timing of works to minimise disturbance and protect water quality. Instream works must ensure there is no barrier to fish. Biosecurity mitigation measures to avoid invasive species impacts.	Potential for in-combination impacts on water quality from stormwater overflow from Monasterevin WWTP.	

	no significant decline in out-migrating smolt abundance, no decline in no. & distribution of spawning redds due to anthropogenic causes, water quality at least Q4 at all sampled sites.	already high) and accidental spillages. Potential for instream works to create a barrier to migration upstream for Atlantic Salmon. Aquatic habitats could be impacted if small section of Japanese Knotweed on site spreads.	Works will be undertaken outside of salmonid close season.		
Otter [1355]	No significant decline in distribution or extent of terrestrial, marine and freshwater habitat; no significant decline in couching sites and holts; available fish biomass; no significant decline in available fish biomass.	Likely that otters use the area for foraging and/ or commuting. Potential for barrier to movement if multiple arches are worked on and closed at the same time. Indirect water quality impacts could potentially effect fish populations that are a source of food for otter. Aquatic habitats could be impacted if small section of Japanese Knotweed on site spreads.	Limitation of footprint of works to minimise disturbance, leaving arches open to maintain accessibility and mitigation for water quality and biosecurity. Works will not be undertaken during dark hours to avoid potential disturbance to otter. In-stream works will take place during daylight hours and direct disturbance impacts are not considered to be significant.	Potential for in-combination impacts on water quality from stormwater overflow from Monasterevin WWTP.	
Overall Conclusion: Integrity test Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of the River Barrow and River Nore SAC in view of the site's conservation objectives. No reasonable scientific doubt remains as to the absence of such effects.					

Relevant European site: River Barrow and River Nore SAC (Site code: 002162)

8.4.8. The site synopsis for the River Barrow and River Nore SAC states that the site is of considerable significance for the occurrence of good examples of habitat and populations of plant and animal species listed on Annexes I and II of the EU Habitats Directive.

8.4.9. It is noted that floating river vegetation is well represented in the River Barrow and that the water quality of the Barrow has improved since a vegetation survey was carried out by the EPA in 1996. Other habitats occurring throughout the SAC include wet grassland, marsh, reedswamp, coniferous plantations, deciduous woodland, scrub and ponds.

8.4.10. Freshwater Pearl Mussel, White-clawed Crayfish, Salmon, Twaite Shad, Lamprey, whorl snail and Otter have an important presence in the SAC. The Barrow/ Nore is mainly a grilse fishery and the upper section of the Barrow and Nore are very important for spawning.

8.4.11. It is noted that the main threats to the site and current damaging activities 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.

Baseline Ecological Conditions

8.4.12. Monasterevin Bridge is located over the River Barrow to the south-west of Monasterevin. The bridge carries the R445 Regional Route, which is the main approach road to the town from the direction of Portlaoise. Moore Abbey lies to the south-east of the bridge and there are treelines for approximately 100m along this riverbank. Passlands Stream also discharges to the Barrow via a collapsed outfall at this location. Opposite along the right bank, there is mixed broadleaved woodland and this is also the location of Monasterevin Wastewater Treatment Plant, which has a stormwater overflow into the Barrow. To the north-east of the bridge are town centre buildings and there is a single dwelling to the north-west. Japanese knotweed occurs upstream of the bridge on the left bank.

8.4.13. Field surveys were conducted on 13th and 14th September 2019. These included habitat surveys, mammal surveys (including Otter), aquatic ecology surveys, bird surveys and general protected species surveys. Kick sampling surveys were

undertaken for small fish and lamprey and habitat was assessed for suitability for terrestrial invertebrates. Any evidence of bird nesting was recorded, and flora and fauna were identified and evaluated for ecological importance.

8.4.14. No habitats that are a Qualifying Interest for the River Barrow and River Nore SAC occur within the proposed works area. However, floating river vegetation may be present downstream in the River Barrow. Species that are Qualifying Interests for the SAC and which may occur within the proposed works area include lamprey, Atlantic Salmon, Otter and White Clawed Crayfish. No lamprey were recorded at the proposed development site but potential habitat that may support small numbers of juveniles was reported. It is also recorded that there is some potential salmon spawning habitat downstream of the bridge but in general this is a sluggish river, which does not provide suitable spawning and nursery habitat for salmonids. Otter is widespread in the SAC and it is likely that the proposed development site is used for commuting and foraging. No holts were found in the vicinity of the works area. Crayfish plague has resulted in the major loss of this species in the River Barrow. There were no crayfish recorded at the proposed development site; however, they have been recorded in the past and remain a Qualifying Interest species for the SAC.

8.4.15. Overall, I consider that the level of surveying is appropriate having regard to the biodiversity of the area and adequate in terms of their content, duration and coverage. The baseline information is suitably up to date having regard to the lodgement dates of the planning application.

Factors that can adversely affect the achievement of conservation objectives

8.4.16. The conservation objectives for the River Barrow and River Nore SAC includes the maintenance of the favourable conservation condition of white clawed crayfish and watercourses of plain to montane levels, with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. It is also the conservation objective to restore the favourable conservation objective of Sea Lamprey, Brook Lamprey, River Lamprey Salmon and Otter.

8.4.17. The favourable conservation status of a habitat is achieved when its natural range, and area it covers within that range, are stable or increasing; 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 its population dynamics data indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; 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.

8.4.18. There are factors arising from the proposed development, in-combination with other plans/ projects, that can adversely affect the achievement of the conservation objectives for which the River Barrow and River Nore SAC is designated. In the absence of mitigation measures, the proposed development alone, and in combination with other plans/ projects, has the potential to adversely affect the maintenance or restoration of the favourable conservation condition of certain habitats and species for which the River Barrow and River Nore SAC is designated through loss or disturbance of habitat/ species; potential impairment of water quality; and invasive species.

8.4.19. In an unmanaged situation, impacts could occur from disturbance to fish species and otter and from pollutants entering the River Barrow. Pollutants from suspended solids and accidental spillages of oil/ fuel from machinery and/ or concrete could directly affect otter or fish species or indirectly through their food supply. Barrier effects during construction could impact on fish species and otter and disturbance to otter could occur from increased noise and light disturbance. Lamprey species could be disturbed by instream works and there is potential for this species to become stranded in dewatered areas.

8.4.20. There is potential for the spread of crayfish plaque if proper procedures are not put in place. Japanese Knotweed could impact on aquatic habitats, otter and floating river vegetation if it is allowed to spread following de-vegetation works and cut back of overgrowth on embankments.

8.4.21. The potential for contamination during the construction phase will be mitigated by a range of measures, best practices, and monitoring. A site ecologist will be appointed to ensure a site-specific method statement complies with relevant mitigation and that environmental and ecological protection measures as outlined in the method

statement are complied with. The method statement will include details on timing of works, equipment, machinery, materials, procedures, biosecurity protocols and water quality protection works.

8.4.22. Water quality protection measures will include procedures for refuelling away from river; storage of fuels in bunded tanks; agreement of 5-day low flow weather window; Emergency Contingency Plan for flood events; carrying out of works at a single pier/ arch at a time; overseeing and monitoring of dry works area by site ecologist; control of concrete mixing within compound; and installation of silt bags for any pumping out of water from works area.

8.4.23. A line of random small boulders will be placed instream under the outer arches of the bridge to create habitat for lamprey. Works will also take place outside of the salmonid close season and the lamprey spawning season. Mitigation measures for protection of otter include the restriction of construction works to daylight hours. Access for aquatic species will be maintained by working on only one arch at a time.

8.4.24. The small section of Japanese Knotweed on site will be eradicated prior to commencement of works. This may require herbicide treatment screening/ sifting, rhizome fragmentation and cultivation, burial on site, root barrier membrane, removal to landfill and biological control. All work equipment/ gear coming into contact with the river will be sterilised to ensure that there will be no spread of crayfish plague.

8.4.25. The targets and attributes for the Special Conservation Interest species that potentially could be adversely affected by the proposed development are set out in Table 3 above. The above mitigation measures will ensure that the proposed development will not adversely impact on water quality. Measures will mitigate against any potential impact causing disturbance to fisheries species, including Lamprey and Salmon. Works will be limited to daylight hours, and it is noted that otter are capable of foraging over a wide area. Thus, there will continue to be a sufficiently large habitat in the wider area to maintain the Special Conservation Interest species on a long-term basis. I am therefore satisfied that mitigation is clearly defined and appropriate in terms of the potential adverse impact on water quality. The proposed development will not interfere with the population dynamics and natural range of the Special Conservation Interest species.

8.4.26. The qualifying interests for the River Barrow and River Nore SAC include a number of other species such as estuaries, reefs, salt meadows that are located significant distances downstream from the proposed works to an extent that there will be no impact on baseline conditions. Other habitats that are qualifying interests for the SAC do not occur in the vicinity of the proposed development site. Barriers such as weirs prevent the movement of fish species upstream and it is noted that water quality and habitat in the river are not of sufficient standard for certain species.

8.4.27. In conclusion, I am satisfied that with full and proper implementation of the above mitigation measures, it can be determined, beyond all reasonable and reliable scientific doubt, that the proposed development will not result in adverse effects on the integrity of the River Barrow and River Nore SAC. The mitigation measures will address the source of any potential impacts and are adequate, in particular, to protect against disturbance and from sedimentation and pollutants arising from surface water run-off to the watercourse.

8.5. In-Combination Effects

8.5.1. The proposed works will involve the reconstruction and repair of bridge piers and outfall pipe, installation of rock armour, raking and repointing of joints in the structure walls, cleaning and removal of vegetation, and regrading of sections of the riverbed. There are no other planned or ongoing projects in the immediate vicinity of Monasterevin Bridge that could act in combination with the proposed development to have adverse effects on the integrity of a European Site.

8.5.2. Cumulative impacts have the potential to arise in combination with existing background water quality pressures such as the storm water overflow from the Monasterevin Wastewater Treatment Plant. This plant appears to be operating within capacity. However, background water quality issues in combination with stormwater overflow may still be having an impact on the River Barrow and the River Nore SAC. It is noted in the NIS that water quality at the site during surveys was recorded as being poor, with evidence of sewage fungus and heavy siltation. The river channel also has a history of channelization and instream works, and whilst the river is uniform, it is also highly silted. In an unmitigated situation, the proposed development could act in combination to have adverse effects on water quality.

8.5.3. In-combination effects could occur with the presence of Japanese knotweed upstream of the bank on the left-hand side. Poor biosecurity practises could see the introduction of invasive species to the site or the spread from the site to other European Sites.

8.5.4. Notwithstanding the above, the potential for adverse effects due to in-combination effects with other projects and activities was excluded based on the following:

- The proposed bridge remediation works themselves will not lead to adverse impacts on the Special Conservation Interests of the River Barrow and River Nore SAC and therefore in-combination impacts will not arise.
- Mitigation measures will be implemented at the proposed development site to protect downstream water quality notwithstanding the existing water quality pressures affecting the River Barrow.
- There are no other planned or ongoing projects in the immediate vicinity of Monasterevin Bridge that could act in combination with the proposed development to have adverse effects on the integrity of a European Site.
- Biosecurity measures will be put in place to prevent the spread of invasive species to/ from the site.
- The proposed development is small scale and located in an urban area where regular development and human activity occurs naturally over time.

8.6. Appropriate Assessment Conclusions

8.6.1. Having carried out screening for appropriate assessment of the proposed Monasterevin Bridge remediation works, it was concluded that these works would be likely to have a significant effect on the River Barrow and River Nore SAC. Consequently, an appropriate assessment was required of the implications of the project on the qualifying features of this site in light of its conservation objectives.

8.6.2. Following an appropriate assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the River Barrow and River Nore SAC, or any other European site, in view of the sites' Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects.

8.6.3. This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project and proposed mitigation measures in relation to the Conservation Objectives of the River Barrow and River Nore SAC.
- Detailed assessment of in combination effects with other plans and projects.
- No adverse effects to Special Conservation Interest habitat or species of the River Barrow and River Nore SAC following the application of mitigation measures.
- The demonstration, beyond reasonable scientific doubt, that with full and proper implementation of mitigation measures, the proposed development will not result in adverse effects on the integrity of the River Barrow and River Nore SAC.

9.0 Recommendation

On the basis of the above assessment, I recommend that the Board approve the proposed development subject to the reasons and considerations below and subject to conditions including requiring compliance with the submitted details and with the mitigation measures as set out in the NIS.

Reasons and Considerations

In coming to its decision, the Board had regard to the following:

(a) the EU Habitats Directive (92/43/EEC),

(b) the Water Framework Directive (2000/60/EC),

(c) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on a European Site,

(d) the conservation objectives, qualifying interests and special conservation interests for the River Barrow and River Nore SAC (site code: 002162)

(e) the policies and objectives of the Kildare County Development Plan, 2017-2023 and the Monasterevin Local Area Plan, 2016-2022,

(f) the nature and extent of the proposed works as set out in the application for approval,

(g) the information submitted in relation to the potential impacts on habitats, flora and fauna, including the Natura Impact Statement,

(h) the submissions and observations received in relation to the proposed development,

(i) the report and recommendation of the person appointed by the Board to make a report and recommendation on the matter.

Appropriate Assessment:

The Board agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the River Barrow and River Nore SAC is the only European Site for which there is a likelihood of significant effects.

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an Appropriate Assessment of the implications of the proposal for the River Barrow and River Nore SAC (site code: 002162). The Board considered that the information before it was adequate to allow the carrying out of an Appropriate Assessment.

In completing the assessment, the Board considered, in particular:

i. the likely direct and indirect impacts arising from the proposal both individually or in combination with other plans or projects, specifically upon the River Barrow and River Nore SAC (site code: 002162),

ii. the mitigation measures which are included as part of the current proposal,

iii. the Conservation Objectives for the European Site,

iv. the views set out in submissions received.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the integrity of the aforementioned European Site, having regard to the site's conservation objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Site, in view of the site's conservation objectives.

Proper Planning and Sustainable Development/Likely effects on the environment:

It is considered that, subject to compliance with the conditions set out below, the proposed development would not have significant negative effects on the environment or the community in the vicinity, would not give rise to a risk of pollution, would not be detrimental to the visual or landscape amenities of the area, would not seriously injure the amenities of property in the vicinity, would not adversely impact on the cultural, archaeological and built heritage of the area and would not interfere with the existing land uses in the area. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where any mitigation measures set out in the Natura Impact Statement or any conditions of approval require further details to be prepared by or on behalf of the local authority, these details shall be placed on the file and retained as part of the public record.

   Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment.

2. The mitigation and monitoring measures outlined in the plans and particulars relating to the proposed development, including those set out in the Natura Impact Statement shall be implemented in full or as may be required in order to comply with the following conditions. Prior to the commencement of development, details of a time schedule for implementation of mitigation measures and associated monitoring shall be prepared by the local authority and placed on file and retained as part of the public record.

   Reason: In the interest of protecting the environment, the protection of European Sites and in the interest of public health.

3. Prior to the commencement of development, details of measures to protect fisheries and water quality of the river systems shall be outlined and placed on file. In-channel works shall adhere to the timing restrictions to avoid damage to spawning and juvenile fish and Lamprey. Full regard shall be had to Inland Fisheries Ireland's published guidelines for construction works near waterways (Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters, 2016). A programme of water quality monitoring shall be prepared in consultation with the contractor, the local authority and relevant statutory agencies and the programme shall be implemented thereafter.

Reason: In the interest of the protecting of receiving water quality, fisheries and aquatic habitats.

4. Prior to the commencement of development, the local authority, or any agent acting on its behalf, shall prepare in consultation with the relevant statutory agencies, a Construction Environmental Management Plan (CEMP), an Environmental Operating Plan (EOP) and a Water Management Plan incorporating all mitigation measures indicated in the Natura Impact Statement and a demonstration of proposals to adhere to best practice and protocols.

   Reason: In the interest of protecting the environment, the landscape, European Sites, and sensitive receptors and in the interest of public health.

5. The County Council and any agent acting on its behalf shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site and upon removal from the site to prevent the spread of hazardous invasive species and pathogens.

   Reason: In the interest of the proper planning and sustainable development of the area and to ensure the protection of the European sites.

6. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be placed on the file and retained as part of the public record. This plan shall provide details of intended construction practice for the development, including:

   (a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;

   (b) Location of areas for construction site offices and staff facilities;

   (c) Details of site security fencing and hoardings;

   (d) Details of the timing and routing of construction traffic to and from the construction site;

   (e) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;

(f) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works;

(g) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

(h) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained.

(i) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;

(j) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains.

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of amenities, public health and safety.

7. The County Council and any agent acting on its behalf shall facilitate the preservation, recording, protection or removal of archaeological materials or features that may exist within the site. A suitably qualified archaeologist shall be appointed by the County Council to oversee the site set-up and construction of the proposed development and the archaeologist shall be present on site during construction works. An Underwater Archaeological Impact Assessment shall be carried out in advance of works commencing and shall be placed on the file and retained as part of the public record.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

8. All areas in proximity to the works area containing Japanese Knotweed shall be avoided and all areas accessed by machinery on the riverbanks shall be examined after vegetation cutting for seedling knotweed, prior to excavation. An eradication plan for Japanese Knotweed shall be placed on the file and retained as part of the public record. The works area shall be

inspected for Japanese Knotweed one year after works are complete, and if found to be present, a three year spraying programme shall commence to eradicate the plant from the works areas. Details of site inspections and any subsequent spraying programme shall be placed on the file and retained as part of the public record.

Reason: In the interest of nature conservation and to eradicate invasive species.

9. A suitably qualified ecologist shall be retained by the local authority to oversee the site set up and construction of the proposed development and implementation of mitigation measures relating to ecology set out in Natura Impact Statement. The ecologist shall be present during site construction works. Upon completion of works, an ecological report of the site works shall be prepared by the appointed ecologist to be kept on file as part of the public record.

Reason: In the interest of nature conservation and the protection of terrestrial and aquatic biodiversity.

Donal Donnelly
Senior Planning Inspector

2nd July 2021