



An  
Bord  
Pleanála

## Inspector's Report ABP-300513-17

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<b>Development</b>	Remedial works to Poorman's Bridge
<b>Location</b>	Abbeyleix, Co. Laois
<b>Local Authority</b>	Laois County Council
<b>Type of Application</b>	Application for approval made under Section 177(AE) of the Planning and Development Act, 2000 (local authority development requiring appropriate assessment)
<b>Prescribed Bodies</b>	Department of Culture, Heritage and the Gaeltacht. Transport Infrastructure Ireland
<b>Observer(s)</b>	None
<b>Date of Site Inspection</b>	27 <sup>th</sup> April 2018
<b>Inspector</b>	Ciara Kellett

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## 1.0 Introduction

- 1.1. Laois County Council is seeking approval from An Bord Pleanála to undertake bridge remedial works within the River Barrow and River Nore SAC and the River Nore SPA which are designated European sites. There are several other designated European sites (SPAs and SACs) in proximity to the proposed works (see further analysis below). A Natura Impact Statement (NIS) and application under Section 177AE 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 of the Planning and Development act 2000 (as amended) requires that where an appropriate assessment is required in respect of development by a local authority, the authority shall prepare an 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. Poorman's Bridge is a seven span masonry arch structure running in a north-south direction along a local road (L1656) over the River Nore. The bridge is a Protected Structure (RPS Ref. 645) and is listed on the National Inventory of Architectural Heritage (NIAH Ref. 12802338). It is proposed to carry out remedial works on the bridge. The works are described as follows:
  - Clearance of vegetation on or attached to the bridge, removing tree stumps from upstream cutwaters and downstream face of piers by taking down sections of the piers and cutwaters, removing the tree stumps and rebuilding the pier and cutwater.

- Repointing areas of the spandrel walls, piers, abutments and arch barrels, rebuilding top sections of upstream cutwaters, repairing parapet and spandrel walls and installing tie bars above each of the seven spans. Scour protection aprons are also to be provided at the upstream end of piers 3 and 4. This protection will consist of 250mm wide strip of concrete cast along the bottom of the piers, to protect them from further scour.
- Pressurised grouting will be undertaken in the piers and arch barrel up to the quarter points of the bridge after all pointing works have been completed. Entry holes shall be drilled into the bridge for grouting at each pier and barrel.
- Additional work such as crack repair to the parapet, vegetation removal from the bridge itself, and installation of rubbing strips will also be completed.

Following the response to the Further Information request, the Council confirmed that resurfacing of the road as indicated on the drawings is also part of the project (see Section 8 below for further details). This involves the surface dressing of the existing road surface by spraying hot tar onto the road and then spreading 10mm and 6mm stone chips onto the tar for 148m.

## 2.2. **Accompanying documents:**

- Natura Impact Statement (NIS)
- Screening for Appropriate Assessment
- Method Statement including Survey Report on Freshwater Pearl Mussel, Bat Survey Report, and Aquatic Survey Report including White-Clawed Crayfish Survey
- Copies of the public notices
- 4 drawings detailing the works
- Copies of the letters issued to the prescribed bodies

### 3.0 Site and Location

- 3.1. Poorman's Bridge is located on the L1656 road approximately 2.9km north-west of the town of Abbeyleix, Co. Laois. The bridge crosses over the River Nore.
- 3.2. The L1656 road forms a crossroads with the R430 Abbeyleix to Mountrath Road c.1.7km to the east of the bridge. The area is rural in nature with a small number of scattered dwellings in the vicinity of the bridge. The road is typical of tertiary roads – it is narrow but in reasonable condition. The area is gently undulating. Large pylons are visible to the south. The M7 motorway lies c.4.3km to the north-west.
- 3.3. The bridge crosses over the River Nore in a north-south direction. To the north and south of the bridge there are two relatively sharp bends along the road. Boley Lower Quarry is located c.600m to the west and south of the L1656 road.
- 3.4. Appendix A includes maps and photos.

### 4.0 Planning History

- 4.1. There are no planning applications associated with the subject site. There are a small number of planning permissions for residential and agricultural development in the wider area.

### 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. Articles 6(3) and 6(4) require 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 Culture, Heritage and the Gaeltacht 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.

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

- River Barrow and River Nore SAC (Site Code 002162) - 0km
- River Nore SPA (Site Code 004233) – 0km
- Lisbigney Bog SAC (Site Code 000869) – 7.75km south-east
- Knockacoller Bog SAC (Site Code 002333) – 10.4km north-west
- Slieve Bloom SPA (Site Code 004160) – 13.5km north-west
- Slieve Bloom Mountains SAC (Site Code 000412) – 14.5km north-west
- Coolrain Bog SAC (Site Code 002332) – 14km north-west

5.4. **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 Statement 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.*

**5.5. Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities:** Guidance is provided for the competent authority to assess any plan or project. The impact of any plan or project alone or in combination with other projects on the integrity of the Natura 2000 site is considered with respect to the conservation objectives of the site and the structure and function.

**5.6. Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes** (National Roads Authority).

5.6.1. Chapter 5: Examination of buildings and other built structures.

- Bridges are potential roost sites and should be examined properly for evidence of the presence of bats.

5.6.2. Appendix 3: Appropriate Survey Timetable for bats affected by roads schemes

- Bridge: 4 survey rounds per season required to confirm species presence and activity.

Potential species in bridges: Brown Long-eared, Daubenton's, Natter's, Whiskered, Brandt's, Lesser horseshoe's.

## 5.7. **Guidelines on Protection of Fisheries During Construction works in and adjacent to Waters** (Inland Fisheries Ireland, 2016)

### 5.7.1. Chapter 3: Issues of concern

- Pollution of waters: silts and solids, cementitious residues, oils and greases, wood preservative.
- Introduction of invasive species: plants, algae, fish and shellfish.
- Interference with upstream and downstream movements of aquatic life: improperly designed crossing structures, insufficient water depth and physical alteration of stream channels (characteristics and stream profile).

### 5.7.2. Chapter 4: Timing of instream works

- Works should normally be carried out during the period July- September to minimise impact on salmon and trout spawning.

### 5.7.3. Chapter 7: Construction Impacts

- Uncured concrete can kill fish etc. pre-cast concrete should be used.
- Silt can clog spawning beds and damage juvenile fish.
- Discharge of fuels and oils can be toxic to aquatic life.
- Best Practice measures should be used in construction.

### 5.7.4. Chapter 10: Repairs to existing bridges, culverts and scour slabs.

- During grouting of the bridge trained staff should monitor for grout losses and use portable pH monitoring.
- A secure flume arrangement or piping may be used so grouting is undertaken in the dry. Screening shall also be used.
- A sealed and secure decking should be used during repointing and masonry works.
- Perching should not occur where new concrete slabs are poured. Extensive guidance is provided for the recommended depth etc. for scour slabs.

## 5.8. **Laois County Development Plan 2017 – 2023**

- 5.8.1. The site is located within a rural area north-west of Abbeyleix and is not located in an area with a specific zoning objective.



5.8.2. Section 6 of the Plan refers to Infrastructure, and section 7 refers to Heritage, including policies relating to the protection of European sites from the impact of plans and projects.

5.8.3. Section 6.1.2.3 of the Plan refers to County Roads and Urban Roads/Streets. It is stated that '*Laois County Council has responsibility for the carrying out of maintenance and improvement works on these roads, financed from their own resources and supplemented by state grants*'.

5.8.4. Policies include TRANS 20 and TRANS 21.

**TRANS 20:** *Encourage and facilitate investment in the local road network;*

**TRANS 21:** *Subject to availability of resources, provide for and carry out improvements to sections of local roads that are deficient in respect of realignment, structural condition or capacity, and to maintain that standard thereafter;*

5.8.5. Section 7.5 refers to Protected Structures. The subject bridge is listed in Appendix 1 of the Plan as RPS Ref. 645 and NIAH Ref. 12802338.

5.8.6. Policies include OBJ4.

**OBJ4:** *Protect all structures listed in the Record of Protected Structures, that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical character or interest in County Laois;*

5.8.7. With respect to natural heritage, the Plan policies include:

**NH9:** *No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this plan (either individually or in combination with other plans or projects;*

**NH10:** *Assess, in accordance with the relevant legislation, all proposed developments which are likely to have a significant effect (directly or through indirect or cumulative impact) on designated natural heritage sites, sites proposed for designation and protected species;*

**NH13:** Support and co-operate with statutory authorities and others in support of measures taken to manage designated nature conservation sites in order to achieve their conservation objectives;

**NH37:** Protect the Nore Pearl Mussel through the measures set out in the Freshwater Pearl Mussel Nore Sub-Basin Management Plan (2009).

## 6.0 The Natura Impact Statement

6.1. Laois County Council's application for the proposed development was accompanied by a Natural Impact Statement (NIS) which scientifically examined the proposed development and the European sites. The NIS identified and characterised the possible implications of the proposed development on the European sites, in view of the site's conservation objectives, and provided information to enable the Board to carry out an appropriate assessment of the proposed works.

6.2. The NIS was accompanied by the following documents:

- Screening for Appropriate Assessment
- Method Statement which included a number of appendices: 4 drawings; White-Clawed Crayfish Survey; Pearl Mussel Survey; Bat Survey.

## 7.0 Consultations

7.1. The application was circulated to the following bodies:

- Department of Culture, Heritage and the Gaeltacht
- Department of Agriculture, Food and the Marine
- Inland Fisheries Ireland
- The Heritage Council
- An Chomhairle Ealaíon
- Fáilte Ireland
- An Taisce

- Irish Water
- Transport Infrastructure Ireland

7.1.1. In addition to the above referrals and at the request of An Bord Pleanála the application was also referred to the Department of Housing, Planning and Local Government, the Department of Communications, Climate Action and Environment and Waterways Ireland.

7.1.2. Responses were received from Transport Infrastructure Ireland (TII), the Development Applications Unit of the Department of Culture, Heritage and the Gaeltacht and Inland Fisheries Ireland (IFI).

## 7.2. **Transport Infrastructure Ireland (TII):**

7.2.1. TII acknowledged receipt of the referral but advised there are no national road interactions and therefore TII have no specific observations to make on the proposed development.

## 7.3. **Department of Culture, Heritage and the Gaeltacht:**

7.3.1. The department made a submission under a number of headings. In summary, it states:

### *Key issues and risks to Nore Freshwater Pearl Mussel*

- Notes key issue is any impact on water quality.
- Notes most sensitive species is the Nore freshwater pearl mussel (FPM). Notes survey of August 2014 found 14 live mussels between 100-200m downstream of the bridge. Notes there are no mussels in the footprint of the proposed works and therefore there will be no direct impact at the location of the proposed works. Primary immediate risk is from pollution and hydrological and morphological changes.
- Conservation objectives requires the distribution to be maintained at 15.5kms from Poorman's Bridge to Lismaine Bridge and suitable habitat is to be restored – based on current data this distribution will have to be restored rather than maintained.

- Considers that the AA carried out by the Board must consider if the work could permanently preclude achievement of these targets.
- Lists key potential sources of pollution during the works.

*Concerns regarding the NIS*

- Department is of the view that there are lacunae in the information supplied and the material presented is insufficient to conclude an AA and the Board may need to seek further information.
- Examples of 17 areas where lacunae is noted are provided.

*Examples summarised – 17 no.*

- No analyses of potential impacts against site-specific conservation objectives.
- Absence of relevant engineering, hydrological and hydrogeological data.
- Restates key potential sources of pollution and considers effectiveness of mitigation measures have not been demonstrated.
- Considers there has been insufficient analysis of potential changes owing to damming of river.
- Refers to similar works in Mayo. Notes no hydrological data is provided. Department would have expected that modelled data would have been used.
- Limited information on aqua barrier proposed.
- No data on water volumes to be pumped provided, or information on temporary settlement tanks or settlement area.
- No details on the methods for removing build-up of silt from within tanks.
- No hydrogeological data presented. Department of the view that there is significant groundwater inputs to the Nore. Risk that works area will remain wet.
- Methods for working in the wet and emergency procedures are required.
- No information on terram liner provided.
- Query if Ecologist is limited to weekly monitoring/visits. Recommend Ecologist is there permanently.

- Query if trigger levels for commencement and cessation of works have yet to be developed. Note that the Schedule of Works Operation Record (SOWOR) is not provided. Developing trigger levels requires a long dataset of at least a year and must cover at least one example of the season the works are proposed. No monitoring of either the water level or turbidity has been conducted and no information provided if it is intended to develop a rating curve.
- Proposals for monitoring are insufficient in detail.
- Lack of clarity in relation to the proposed re-pointing works and water levels in the river.
- Consider complete project details including detailed outline construction management plans (CMPs) need to be provided in order to allow an adequate AA to be undertaken. Applicant needs to demonstrate that CMPs and other plans are adequate and effective mitigation. If these details are undetermined at time of assessment all potential effects are not being considered.
- Consider that the Method Statement submitted is not the final version.
- Note repeated references to on-going consultation with the NPWS during the works. State that the NPWS are not the consent authority and it is not the role of the NPWS to approve or enforce such plans after permission is granted.

*Other – Bats*

- Notes reference to bats found to roost in the bridge. State that it is unclear if licence has been applied for yet.

#### **7.4. Inland Fisheries Ireland (IFI)**

7.4.1. The IFI made a submission. In summary, it states:

- Essential issues listed: Require that the fisheries resource is not adversely impacted; Works to be carried out to ensure compliance with Ireland's obligation under the Water Framework Directive and in compliance with European Communities Environmental Objectives (Surface Waters) Regulations 2009, S.I. 272 of 2009; Proposed works are carried out in a manner to ensure compliance with the Habitats Regulations.

- Refer to a number of concerns with the Methodology of Proposed Works Report, Screening for AA and the NIS Reports, including: No reference made to biosecurity and the spread of invasive species; Means of access to the riverbed works area appears unclear – essential all instream disturbance is kept to an absolute minimum and personnel are not permitted to gain access to arch or cutwater by wading from bank to bank – scaffolding should be provided; Consideration should be given to prohibiting any discharge from settlement tanks back to Nore; regarding trigger levels at which work might be abandoned, main consideration is that any silts etc. must be removed from within dammed areas and taken to secure storage before dammed area becomes overtopped; Work of most concern is noted as being the pressure grouting which is considered a high-risk process – vigilance is required; A sealed and secure decking should be used which should extend upstream and downstream of the bridge; and, Period during which works should be done is July – September inclusive.
- Notes that the works are recognised as being essential and lists 18 requirements of the IFI which can be included as conditions should the Board approve the works.

## 7.5. Public Submissions

7.5.1. No submissions from members of the public were received.

## 8.0 Further Information Request

8.1. A Further Information Request was sent to Laois County Council. The request was issued under five broad headings summarised as follows:

- 8.1.1. *General Queries:* a) Applicant asked to address the different description of works to be carried out between the newspaper notice and the notice issued to prescribed bodies, and b) to confirm that all appendices referred to have been submitted to the Board.
- 8.1.2. *Natura Impact Statement:* a) It is noted that road resurfacing works are not referred to in the Natura Impact Statement or the letters to the Prescribed Bodies, but are referred to in the newspaper notice and on the drawings. Applicant requested to

clarify if these works are included in the scheme, and b) the NIS states that no herbicides are permitted with respect to vegetation removal, however, newspaper notice states that tree stumps are to be poisoned. Applicant requested to clarify.

8.1.3. *Compound and Construction details:* a) No information has been provided with respect to the exact location or details of the settlement tanks, settlement area and silt fences, b) unclear if temporary access tracks are being proposed to enable the tanks be cleaned out or equipment to be erected, or how the compound is to be accessed from the public road, and c) request a Construction Management Plan.

8.1.4. *Method Statement:* a) requested to address comments from IFI with respect to access to the works area, b) address inconsistencies in setback distances for tanks and settlement area in document, and c) clarify use of herbicides.

8.1.5. *Submissions:* Applicant requested to address any comments made in the submissions.

8.2. The applicant responded and the response included a cover letter and a Construction Management Plan. In summary:

8.2.1. *General Queries:* a) Applicant clarified that the newspaper notice should have stated that the tree stumps were to be removed rather than poisoned. With respect to the road resurfacing it is confirmed that this does form part of the works. It is stated that the surfacing is largely confined to surface dressing of the existing road surface. The process involves spraying hot tar onto the road surface and then spreading 10mm and 6mm stone chips onto the tar. The road is swept to remove excess stone that does not adhere to the tar. The existing soft verge between the rubbing strip and the existing edge of surfacing will be dug out and replaced with a standard road build up of 100mm of asphaltic concrete (tarmac) over 150mm crushed stone. The only waste will be the excess stone chips and soft verge which will be brushed up and removed. There are no drainage openings on the bridge itself so there are no paths for any of the surfacing materials to get to the river. There are low points on approaches to the bridge with drainage into adjacent fields however, once off the bridge the soft verge will be left in place so the only waste is the excess chip which will be removed. This work will not adversely affect the water quality, b) Confirm that appendices B, D and E of the Method Statement are not yet available as the initial monitoring process is

still in progress and a contractor has not yet been appointed. Note that these will be finalised prior to work starting.

8.2.2. *Appropriate Assessment:* Refer to point a) above. State that works being confined to the footprint of the bridge was in relation to in-stream works. Confirm that no herbicides will be permitted with respect to vegetation removal.

8.2.3. *Compound and Construction Details:* a) 3 settlement tanks will be positioned at the eastern end of the proposed site compound. All equipment will be located within the compound with the exception of the pumps. The first silt fence will be located along the boundary of the site compound with the subsequent two silt fences at 5m and 10m from the boundary of the site compound; b) pumps will be located 20m from river bank; c) access will be provided from the north-western corner of the site compound onto the public road; d) Preliminary Construction and Environmental Management Plan submitted.

8.2.4. *Method Statement:* a) Personnel will not be permitted to gain access by walking from bank to bank through the river. A raised access platform will be provided; b) clarification provided on setback distances.

8.3. The applicant was provided an opportunity to respond to the submissions and the response can be summarised as follows:

8.3.1. The applicant's response addresses each point of the DCHG submission in chronological order.

8.3.2. An assessment of effects on the features of interest of the SAC is provided. A table identifying the effects on the qualifying interests potentially within the zone of influence of the project has been provided. This assesses the project against the measures designed to achieve the conservation objectives. Where a measure may be negatively affected by the project the need for mitigation is indicated.

8.3.3. The applicant clarifies the contradiction in the range and distribution of the Nore Freshwater Pearl Mussel (FPM). It states that the Nore FPM is thought to be restricted to a short section of c.10km of the main Nore channel in low numbers. Most of the population is found between Poorman's Bridge and the Creamery above Ballyragget. It notes that the Nore FPM has been in decline for a very long time. It is stated that it is expected that the species will become extinct in the wild within the next 20 years.



- 8.3.4. The applicant responds to the list of key potential sources of pollution as outlined by the DCHG.
- 8.3.5. The applicant provides an Hydraulic Analysis and confirms that the bridge and channel were modelled and the model was used to calculate the flow velocity at different flow rates in the current situation, and with two arches removed, to simulate conditions during the remediation works.
- 8.3.6. Information is provided on remedial works carried out on Macroom Bridge in Co. Cork. Information on the type of aqua barrier proposed is provided as well as photos as works progressed on that bridge. The size of the settlement tanks is advised.
- 8.3.7. The applicant confirms that an Ecologist will be onsite for the full duration of works and accept the department's recommendations in this regard.
- 8.3.8. Confirm that a turbidity monitor and water level gauge have been in operation at the bridge since 3<sup>rd</sup> February 2018 and readings are being recorded on a continuous basis. This information will be used to set the trigger levels for commencement and emergency cessation of works which are currently programmed for July and August 2018. The works have been tendered and it is anticipated that a contractor will be appointed and will allow the Schedule of Works Operation Record to be developed. Once the contractor is appointed the construction management plan will be finalised.
- 8.3.9. It is also their intention to carry out further bat survey approximately 1 to 2 weeks in advancement of works commencing.
- 8.4. This response and the response to the submission from the DCHG was circulated to the Prescribed Bodies for comment. No further comments were received.

## 9.0 **Assessment**

### 9.1. **Introduction**

- 9.1.1. Under the provisions of Section 177AE(6) there are specific requirements for the Board to consider in assessing applications of this nature namely,
- (a) The likely effects on the environment,
  - (b) The likely consequences for the proper planning and sustainable development of the area, and

(c) The likely significant effects of the proposed development on any European sites.

9.1.2. Accordingly, I propose to assess the current application before the Board under these three broad headings.

9.1.3. In addition to the initial submitted information, cognisance is given to the additional information submitted in response to the Further Information Request by An Bord Pleanála.

## 9.2. **The likely effects on the environment**

9.2.1. Repair and remediation works to a bridge is not a project type listed in Schedule 5 of the Planning and Development Regulations, 2001 as amended. Therefore, there is no requirement for the applicant to submit an Environmental Impact Assessment Report (EIAR). The applicant has only provided supporting documents assessing the potential impact on bats but no other environmental topics (other than the documents required for the Appropriate Assessment).

9.2.2. The most likely impact of the proposed development on the environment arises from the impact of the remediation works on water quality, biodiversity, residential amenity and cultural heritage. Water quality and biodiversity are discussed in some detail in relation to the impact on the Natura 2000 sites in the appropriate assessment below, however the wider ecological impact and those species not listed as Qualifying Interest of the European Sites are addressed below in addition to other relevant areas as follows:

- Biodiversity
- Residential amenity
- Cultural, Archaeological and Built Heritage

### 9.2.3. **Biodiversity**

Impacts on the qualifying features of the designated sites are addressed below and subject to the strict implementation of mitigation measures are not considered to be significant.

Bat surveys were carried out and a report accompanies this application.

Three individual Daubenton's bats were observed roosting in crevices under three separate arches. There are several cracks and crevices throughout the bridge which offer suitable roosting features for bats.

The report concludes that as the bridge is a roosting site for bats, a bat derogation licence shall be required to exclude bats from the bridge prior to works commencing. All conditions of that licence must be carried out in full. A pre-construction survey will be conducted prior to any works commencing. Temporarily filled crevices will be examined daily by the project ecologist to ensure they have not become dislodged and bats have not reoccupied these features. Measures must be put in place prior to bat breeding season as a maternity roost cannot be disturbed when young are present. No herbicides are to be used.

With the implementation of the mitigation measures, I am satisfied the impact will not be significant.

#### 9.2.4. **Residential Amenity**

During the works there is likely to be a short-term increase in traffic and noise. However this is temporary and unlikely to be significant due to the scale of the works and character of the receiving environment.

The road is a tertiary local road with scattered residential development in the vicinity. The duration of the works is stated as being 8 weeks only.

The works are described as remedial works to the bridge. These works will secure the bridge for the benefit of the vehicular and pedestrian traffic users. There will not be a landscape or visual impact as a result of these works.

I am satisfied that there will not be a significant adverse impact on residential or visual amenities.

#### 9.2.5. **Cultural, Archaeological and Built Heritage**

The bridge is a Protected Structure and is listed on the National Inventory of Architectural Heritage. It is described as a seven-arch limestone road bridge over the River Nore, built c.1770 with triangular cutwaters, rubble limestone parapets and segment-headed arches with limestone voussoirs.

The works proposed are remedial works which will secure the bridge and repair the obvious cracks and remove the vegetation growing on the bridge.

The applicant has not provided any information with respect to the potential for archaeology. There is a potential for unknown archaeological remains to be present when the area around each arch is dammed. I consider a condition requiring a suitably qualified archaeologist to be appointed by the County Council to oversee the dam/aqua barrier set-up should be appended to an approval by the Board.

With an appropriate archaeological condition, I am satisfied that these works will have a positive impact on the bridge and will not detract from the character of the bridge.

#### 9.2.6. **Conclusion**

Having regard to the scale of the proposed works and its location in a rural area and subject to the implementation of all mitigation measures in full, the proposed development is unlikely to give rise to significant environmental effects.

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

- 9.3.1. The proposal is to carry out remedial works on Poorman's Bridge which crosses over the Nore River c.2.9km north-west of Abbeyleix. I visited the site and can confirm to the Board that it is clear that remedial and repair works are required. Vegetation and cracks are visible on the arches. Two of the arches are almost completely overgrown with vegetation (span 6 and 7), albeit these arches are outside of the river itself.
- 9.3.2. The Laois County Development Plan states in Section 6.1.2.3 of the Plan which refers to County Roads and Urban Roads/Streets that '*Laois County Council has responsibility for the carrying out of maintenance and improvement works on these roads, financed from their own resources and supplemented by state grants*'.
- 9.3.3. Policies include TRANS 20 and TRANS 21.

**TRANS 20:** *Encourage and facilitate investment in the local road network;*

**TRANS 21:** *Subject to availability of resources, provide for and carry out improvements to sections of local roads that are deficient in respect of realignment, structural condition or capacity, and to maintain that standard thereafter;*

- 9.3.4. The works include investing in remedial works to the bridge on the L1656 road in accordance with policy TRANS 20 and are providing for, and carrying out, improvements to the bridge on the L1656 road in accordance with policy TRANS 21.
- 9.3.5. The Development Plan also refers to Protected Structures. The bridge is a Protected Structure (ref. RPS 645) and the works proposed will help maintain and protect the structure in accordance with policy OBJ4 which seeks to protect all structures listed in the Record of Protected Structures.
- 9.3.6. I draw the Board's attention to the fact that the works to be carried out, outside the footprint of the bridge, have not been assessed in the NIS. The drawings submitted with the application indicate that 148m of surface dressing is to be carried out either side of the bridge. There is no assessment of these works within the NIS. The applicant as part of the Further Information request was requested to clarify if these works were in fact included, because there was no mention of this aspect in the letters to the prescribed bodies as well as the NIS. This work was however referred to in the public notices. The applicant responded stating that the works are included, however, the NIS was not updated to reflect this work. While the works were described in the response to the Further Information, and would be in accordance with the proper planning and sustainable development of the area, I am not satisfied that the resurfacing works have been adequately assessed in the NIS and would recommend to the Board that this aspect is not permitted. I will address this further below but am of the opinion that insufficient information has been provided with respect to this aspect of the works to enable a proper appropriate assessment to be carried out.
- 9.3.7. With respect to the remedial works to the bridge itself, I am satisfied that the remedial works are necessary and that the principle of the proposed works is consistent with the Objectives and Policies set out in the Development Plan and is in accordance with the proper planning and sustainable development of the area.

#### 9.4. **The likely significant effects on a European site:**

- 9.4.1. The areas addressed in this section are as follows:
- Compliance with Articles 6(3) of the EU Habitats Directive
  - The Natura Impact Statement

- Appropriate Assessment

9.5. **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.

9.6. **The Natura Impact Statement:** The application was accompanied by an NIS which described the proposed development, the project site and the surrounding area. The NIS contained a Stage 1 Screening Assessment which concluded that a Stage 2 Appropriate Assessment was required. The NIS outlined the methodology used for assessing potential impacts on the habitats and species within several European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for these sites and their conservation objectives, it suggested mitigation measures, assessed in-combination effects with other plans and projects and it identified any residual effects on the European sites and their conservation objectives.

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

- A desk study
- National level guidance on Appropriate Assessment.
- Field surveys of the site and surrounding area, as well as surveys at the locations of the proposed remedial works and along both upstream and downstream stretches of the River Nore.
- Consultations with the National Parks and Wildlife Service (NPWS) and Inland Fisheries Ireland (IFI).

9.6.2. The report concluded that, subject to the implementation of best practice and the recommended mitigation measures, the proposed development would not have a significant effect either individually or in combination with other plans or projects on

the conservation objectives of the River Barrow and River Nore SAC (Site Code 002162) and the River Nore SPA (Site Code 004233).

- 9.6.3. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, does clearly identify the potential impacts with the exception of the resurfacing road works, and does use best scientific information and knowledge. Details of mitigation measures are provided and they are summarised in Section 5.5 of the NIS. I am satisfied that the information is sufficient to allow for appropriate assessment of the proposed development (see further analysis below).

### 9.7. Appropriate Assessment

- 9.7.1. I consider that the proposed development of remedial works to Poorman’s Bridge is not directly connected with or necessary to the management of any European site.

- 9.7.2. Having regard to the information and submissions available, 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 following European Sites 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.

European sites considered for Stage 1 screening:

European site (SAC/SPA)	Qualifying Interests	Distance
River Nore SPA (004233)	Kingfisher <i>Alcedo atthis</i>	0m
River Barrow and River Nore SAC (002162)	Desmoulin’s whorl snail <i>Vertigo moulinsiana</i> Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> White-clawed crayfish <i>Austropotamobius pallipes</i> Sea Lamprey <i>Petromyzon marinus</i> Brook Lamprey <i>Lampetra planeri</i>	0m

European site (SAC/SPA)	Qualifying Interests	Distance
	<p>River Lamprey <i>Lampetra fluviatilis</i></p> <p>Twaite shad <i>Alosa fallax</i></p> <p>Atlantic Salmon <i>Salmo salar</i></p> <p>Estuaries</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Atlantic salt meadows</p> <p>Otter <i>Lutra lutra</i></p> <p>Mediterranean salt meadows</p> <p>Kilarney Fern <i>Trichomanes speciosum</i></p> <p>Nore Freshwater Pearl Mussel <i>Margaritifera durrovensis</i></p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation</p> <p>European Dry Heaths</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</p> <p>Petrifying springs with <i>tufa</i> formation</p> <p>Old sessile oak woods with <i>ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>Alluvial Forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i></p>	
<p><b>Lisbigney Bog SAC (000869)</b></p>	<p>Desmoulin's whorl snail <i>Vertigo moulinsiana</i></p> <p>Calcerous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i></p>	<p>7.75km south-west</p>
<p><b>Knockacoller Bog SAC (002333)</b></p>	<p>Active Raised bogs</p> <p>Degraded Raised bogs</p> <p>Depressions on peat substrates of</p>	<p>10.25km north-west</p>



European site (SAC/SPA)	Qualifying Interests	Distance
	the Rhynchosporion	
<b>Slieve Bloom SPA (004160)</b>	Hen Harrier <i>Circus cyaneus</i>	13.25km north-west
<b>Coolrain Bog SAC (002332)</b>	Active Raised bogs Degraded Raised bogs Depressions on peat substrates of the Rhynchosporion	14km north-west
<b>Slieve Bloom Mountains SAC</b>	Northern Atlantic wet heaths with <i>Erica tetralix</i> Blanket bog Alluvial Forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	14.4km north-west

9.7.3. Based on my examination of the NIS report and supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distance and functional relationship 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 would conclude that a Stage 2 Appropriate Assessment is required for two of the seven European sites referred to above, namely the River Barrow and River Nore SAC (Site Code 002162) and the River Nore SPA (Site Code 004233).

9.7.4. The remaining five sites can be screened out from further assessment because of the scale of the proposed works, the nature of the Conservation Objectives, Qualifying and Special Conservation Interests, the separation distances and the lack of a substantive linkage between the proposed works and the European sites. It is therefore reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on these five European Sites in view of the sites' conservation objectives and a Stage 2 Appropriate Assessment is not therefore required for these sites.

9.8. **Relevant European sites:** The Conservation Objectives and Qualifying Interests, including any relevant attributes and targets for these sites, are set out below.

Site Name	Qualifying Interests	Distance
<b>1. River Nore SPA (004233)</b>	Kingfisher <i>Alcedo atthis</i>	0m
<b>2. River Barrow and River Nore SAC (002162)</b>	Desmoulin's whorl snail <i>Vertigo moulinsiana</i>  Freshwater Pearl Mussel <i>Margaritifera margaritifera</i>  White-clawed crayfish <i>Austropotamobius pallipes</i>  Sea Lamprey <i>Petromyzon marinus</i>  Brook Lamprey <i>Lampetra planeri</i>  River Lamprey <i>Lampetra fluviatilis</i>  Twaite shad <i>Alosa fallax</i>  Atlantic Salmon <i>Salmo salar</i>  Estuaries  Mudflats and sandflats not covered by seawater at low tide  Atlantic salt meadows  Otter <i>Lutra lutra</i>  Mediterranean salt meadows  Kilarney Fern <i>Trichomanes speciosum</i>  Nore Freshwater Pearl Mussel <i>Margaritifera durrovensis</i>  Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation  European Dry Heaths  Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	0m

Site Name	Qualifying Interests	Distance
	Petrifying springs with <i>tufa</i> formation Old sessile oak woods with <i>illex</i> and <i>Blechnum</i> in the British Isles Alluvial Forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	

## 9.9. River Nore SPA (Site Code 004233):

### 9.9.1. Description of site:

The River Nore SPA is a long, linear site that includes the following river sections: the River Nore from the bridge at Townparks, (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Inistioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co. Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island, Co. Kilkenny. The site includes the river channel and marginal vegetation.

For a large part of its course the River Nore traverses Carboniferous limestone plains; it passes over a narrow band of Old Red Sandstone rocks below Thomastown.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher. The River Nore SPA is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

### 9.9.2. Conservation Objectives

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

*Bird Code:* A229

*Common Name:* Kingfisher

*Scientific Name:* Alcedo atthis

### 9.9.3. **Potential direct and/or indirect effects:**

The Conservation Objective for the River Nore SPA is to maintain or restore the favourable conservation condition of the Kingfisher bird. Potential direct effects could include:

- Disturbance to kingfishers during the remedial works due to increased noise and human activity, heavy machinery use and bridge works.

A single kingfisher was recorded upstream of the bridge during ecological surveys of 30<sup>th</sup> September 2014. The banks upstream and downstream for 150m were surveyed for potential nesting sites but were not deemed suitable and no nests were found.

Potential indirect effects would be due to impacts on water quality which could impact on the kingfisher's food.

## 9.10. **River Barrow and River Nore SAC (Site Code 002162)**

### 9.10.1. **Description of site**

The River Nore rises in the Old Red Sandstone of the Slieve Bloom Mountains before passing through a band of Carboniferous shales and sandstones. The Nore, for a large part of its course, traverses limestone plains and then Old Red Sandstone for a short stretch below Thomastown. Before joining the Barrow it runs over intrusive rocks poor in silica. The upper reaches of the Barrow also run through limestone. The middle reaches and many of the eastern tributaries, sourced in the Blackstairs Mountains, run through Leinster Granite. The southern end, like the Nore runs over intrusive rocks poor in silica. Waterford Harbour is a deep valley excavated by glacial floodwaters when the sea level was lower than today. The coast shelves quite rapidly along much of the shore.

The site is very important for the presence of a number of E.U. Habitats Directive Annex II animal species including Freshwater Pearl Mussel (both *Margaritifera margaritifera* and *M. m. durrovensis*), White-clawed Crayfish, Salmon, Twaité Shad, three lamprey species – Sea Lamprey, Brook Lamprey and River Lamprey, the tiny whorl snail *Vertigo moulinsiana* and Otter. This is the only site in the world for the

hard water form of the Freshwater Pearl Mussel, *M. m. durrovensis*, and one of only a handful of spawning grounds in the country for Twaite Shad. The freshwater stretches of the River Nore main channel is a designated salmonid river. The Barrow/Nore is mainly a grilse fishery though spring salmon fishing is good in the vicinity of Thomastown and Inistioge on the Nore. The upper stretches of the Barrow and Nore, particularly the Owenass River, are very important for spawning.

Overall, the site is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive. Furthermore it is of high conservation value for the populations of bird species that use it. The occurrence of several Red Data Book plant species including three rare plants in the salt meadows and the population of the hard water form of the Freshwater Pearl Mussel, which is limited to a 10 km stretch of the Nore, add further interest to this site.

The riparian zone of the River Nore stretch comprises treelines (WL1) and heavily managed agricultural grassland (GA1). The treelines are stock proof along the river with the exception of areas cleared for cattle drinking access near Poorman's Bridge. At Poorman's Bridge a good diversity of macrophytes are present.

A bat survey was carried out on the 22<sup>nd</sup> and 23<sup>rd</sup> September 2014 with bats recorded within cracks and crevices of the bridge.

A mammal survey was carried out to locate any otters. No otter holts were located 100m upstream or downstream of the bridge. An otter was observed approximately 50m upstream of the bridge on the 22<sup>nd</sup> September 2014, however no evidence was recorded during the October 2017 visit.

The bridge was surveyed for bird nests including dipper. No dipper nests were recorded and the species was not observed during 2014 or 2017 surveys. A single kingfisher was recorded travelling upstream. No kingfisher nests were recorded.

Biological water quality was rated Q4-5 when assessed by the EPA in 2016 corresponding to WFD 'High Status'. During the most recent sampling carried out in October 2017 water quality was rated Q4, equivalent to WFD 'Good Status'.

A survey was carried out between 0-50m upstream and downstream of the bridge in September 2015 to assess potential salmonid and lamprey habitat. Potential

spawning, nursery and adult habitats for lamprey and salmonid species were recorded and mapped within the study area.

Surveys for white-clawed crayfish were undertaken in September 2014.

A Freshwater Pearl Mussel survey took place in July 2014 within 50m of the bridge. A further 150m was surveyed downstream. The crossing powerline was used as the downstream limit. Due to very poor habitat quality in the vicinity of the bridge it was assessed that juvenile mussels could not be present in the area. A redox survey was conducted at the location of the first living mussel, approximately 100m downstream of the bridge.

#### 9.10.2. **Conservation Objectives**

There are detailed conservation objectives for the SAC. They aim to maintain or restore the favourable conservation condition of the priority habitats and species listed in the Habitats and Birds Directives, with specific attributes and targets listed for each habitat and species.

#### 9.10.3. **Potential direct and/or indirect effects:**

The NIS lists the qualifying features of the SAC and evaluates through a scientific examination of evidence and data whether or not these features should or should not be selected for further assessment in the NIS. The qualifying features that are selected for further assessment are discussed in the NIS.

##### *Desmoulin's whorl snail Vertigo moulinsiana*

The rare Desmoulin's whorl snail is the largest of all the vertigo species growing to between 2.3 to 2.7mm in height. It lives on living and dead stems and leaves of tall plants in wetland situations. It requires a stable hydrogeology where the water table is at or slightly above the ground surface for much of the year. There are no Desmoulin's whorl snail records from the two 10km grid squares through which the River Nore flows downstream of Poorman's Bridge. Taking into account the habitat requirements of the snail its distribution in the wider region, this species is highly unlikely to occur at the development site.

##### *Freshwater Pearl Mussel and the Nore Freshwater Pearl Mussel*

The Habitats Directive lists the Nore freshwater pearl mussel *Margaritifera durrovensis* under a unique taxon code separate from the species *Margaritifera*

*margaritifera*. The NIS states that the River Nore population is the only known extant population of this taxon in the world. Both taxa have declined throughout their range. *Margaritifera durrovensis* is listed as “critically endangered” and its extreme decline and single population status make it one of the most endangered taxa in the world.

A survey was conducted at the site on 22<sup>nd</sup> July 2014 to try and locate every mussel within close proximity (50m) of the bridge. A further 150m was surveyed downstream to see if mussels became more plentiful as well as a short section upstream of the bridge.

There were no live mussels found in the direct vicinity of the bridge piers or within 100m downstream of the bridge. Therefore it can be concluded that the direct impact to pearl mussels in the immediate vicinity is not significant and no mussels need be translocated. The lack of mussels is due to a combination of the effects of the existing bridge which has resulted in scoured habitat in the immediate footprint of the bridge and poor habitat conditions from direct trampling by cattle that have access into the river. The habitat in this area is not supporting live adult mussels and does not have potential at present for juvenile mussel survival. From 150m downstream of the bridge some Nore mussel habitat can be found. A total of 14 live mussels were found in contrast to the 108 Nore pearl mussels counted in 1993 both immediately upstream and downstream of the bridge which had reduced to 44 in the 1999 survey.

The likely cause of the decline is the repeated episodes of suspended physical and organic fine sediment. Any future release of fine sediment has the potential to cause damage to the remaining mussels downstream. Fine sediment in suspension can travel for many kilometres. There is the potential for old lime mortar to enter the watercourse as well as risk of organic pollution through accidental spillage of hydrocarbons, concrete wastewater escaping from a leak in the shuttering or overflowing over the shuttering or grout wastewater.

The entire world population of *Margaritifera durrovensis* is now thought to be located within 10km immediately downstream of Poorman’s Bridge.

#### *White-clawed crayfish*

White-clawed crayfish prefer relatively cool temperatures and adequate dissolved oxygen and lime. Juveniles live among submerged tree-roots, gravel or aquatic plants, while larger crayfish need stones to hide under or earthen banks to burrow.

They show little activity during winter. They have a wide range of predators and try to avoid predation by hiding in refuges by day and coming out at night.

No crayfish were detected at Poorman's Bridge during the survey undertaken in September 2014 within 50m upstream and downstream. Using a high level of survey effort including trapping and hand searching they are most likely absent from this area. A walkover for 2km downstream did not uncover any other sprainting sites which would facilitate the identification of recent crayfish remains. None were found present during an extensive sweep sampling carried out in October 2017.

Siltation related impacts prevent crayfish from entering refugia under cobble and boulder as the interstitial space becomes blocked. As such crayfish in the open during the day can be easily predated. Sediment also prevents crayfish from breathing using gills under their carapace.

#### *Sea Lamprey, River Lamprey and Brook Lamprey*

The 10km grid square encompassing Poorman's Bridge does not lie within the range or distribution of sea lamprey.

The brook and river lamprey are very similar genetically and cannot be distinguished by visual means. The 10km grid square encompassing Poorman's Bridge lies within the range or distribution of the brook and river lamprey.

Overall the habitat of the River Nore at Poorman's Bridge may be considered good quality river/brook lamprey habitat. However siltation remains a problem which can prevent fish spawning. During the works siltation, cement and hydrocarbons could enter the river, which has the potential to result in an indirect impact on lamprey.

#### *Atlantic Salmon*

Relatively cool rivers with extensive gravelly bottom headwaters are essential during the early life of salmon. The River Nore channels have low well vegetated banks and flood frequently. They are excellent spawning and nursery habitats (if unaltered). The Nore is ranked 4<sup>th</sup> nationally containing 6% of the fluvial habitat accessible to Atlantic Salmon. Overall the habitat of the River Nore at Poorman's Bridge may be considered a very good salmonid habitat but mainly for Brown Trout. However siltation remains a problem and will damage the quality of the riverine gravels and possibly result in calcification. There is the potential for the water quality to be



reduced as a result of sediment or pollutants entering the river during the works. This could result in an indirect effect on Atlantic Salmon.

#### *Otter*

The otter is widespread throughout the country. There were no otter holts or field signs of otter recorded within 250m upstream or downstream of the bridge. One individual was observed 100m upstream and it is considered likely that otter forage within the immediate area. An impact to prey species (crayfish and fish) through the potential for localised reductions on water quality to occur during the works could have an indirect impact on otter.

#### *Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation*

The River Nore at Poorman's Bridge supports a combination of submerged species and littoral emergent species. The bridge structure had a good diversity of liverwort species. The riverine plant community at Poorman's Bridge has been impacted by cattle poaching and its quality has been reduced by agricultural impacts. The main threat to this habitat from the proposed project would be the potential risk of localised ingress of sediment and pollutants to the river.

#### *Alluvial forests*

The principal communities within the SAC are Gallery Woodland and wet willow-alder-ash woodland. The habitat could be potentially impacted if pollutants such as hydrocarbons and concrete and sediment entered the river. However no felling of riparian woodland is required for access or remedial works, therefore no habitat loss will occur.

#### *Summary of Potentially Significant Impacts*

The NIS summarises the likely significant impacts (without mitigation) on the Natura 2000 sites. The significance of impact with respect to habitat alteration and water quality have been rated as Negative Profound Long-term. The most sensitive receptor is the Freshwater Pearl Mussel (FPM). In a worst case scenario a considerable release of concrete to the river could result in FPM fatalities.

Potential Impact	Description of Impact	Significance of the impact
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Habitat Alteration	Concrete, mortar, sediment, fuel oils and other chemicals have potential to have a significant impact on the integrity of the sites	Negative Profound Long-term
Impairment of water quality	Concrete, mortar, sediment, fuel oils and other chemicals have potential to have a significant impact on the integrity of the sites	Negative Profound Long-term
Habitat or species fragmentation	The alteration of habitat downstream of the bridge could present a divide for less mobile species either side of this altered habitat	Negative Slight Long-term
Disturbance/ displacement of species within designated site due to noise and increased human activity	The works may cause temporary disruption to the movement and migration of fish species. The dam barriers may exclude fish from travelling up a particular arch and may limit passage of fish. However only two arches will be blocked at any one time. Fish movement preference during higher than normal flow - it is not considered that this will result in a significant disturbance or displacement impact to salmon or lamprey species.	Negative Slight Short-term

**9.11. Potential in-combination effects:**

The surrounding environment is dominated by agricultural land and residential properties. Potentially significant impacts arising from the proposed remedial works in combination with other developments through the increase in sedimentation and nutrients in the river would likely result in a significant cumulative impact on qualifying features of the Natura 2000 sites.

There are large sections of improved grassland pastures for cattle adjacent to the bridge and surrounding area. Cattle are accessing the river adjacent to the bridge and the biodiversity of flora has been reduced by drainage, reseeding, fertilisation and intensive grazing by cattle. The NIS states that arterial drainage schemes would have disturbed sediment regimes and habitats within the river.

The main potential impacts would be in terms of potential increase in nutrient levels of local watercourses. There is potential for the proposed works to contribute to a cumulative impact on water quality through the sedimentation and other pollutants entering the watercourse as a result of construction works and farming operations.

Barriers to fish migration can cause a significant threat. Potential barriers would include culverts, bridge aprons, weirs and stone weirs. The damming works will be temporary only lasting the summer months and will only dam two piers at a time. Hydraulic analysis was provided following the request for Further Information. The velocities through the bridge for a range of flows were provided. It is stated that the remaining three in-river arches have adequate hydraulic capacity to take normal summer flows.

A list of recent developments granted planning permission in the vicinity were analysed. Developments comprising of residential, agricultural and quarrying activities were granted permission. Potential significant impacts arise from the combination of the remedial works with other developments which could result in a significant cumulative impact on qualifying features without proper mitigation. However, I do not consider that any significant potential in-combination or cumulative impacts arise over and above those potential direct and indirect effects listed above.

#### 9.12. **Mitigation measures:**

The NIS sets out a series of mitigation measures under a number of headings, which can be summarised as follows:

- **Works supervision**

- A LCC chartered engineer will be appointed to supervise and monitor the works. The engineer will ensure a Schedule of Works Operation Record (SOWOR) is provided on environmental monitoring which will be continually verified.
- The SOWOR will be circulated to LCC, NPWS and IFI on a weekly basis.

- **Project Ecologist**

- As confirmed following the Further Information request a Project Ecologist will be on-site for the full duration of the project.
- The Ecologist will have access to a Freshwater Pearl Mussel expert as required.
- The Project Ecologist will have the authority to cease all works if not being carried out in line with agreed method statement or daily monitoring indicates that the proposed measures are not functioning adequately.

- **Method Statement for Proposed Works**
  - A detailed Method Statement has been prepared and once the contractor is appointed the Construction Management Plan will be finalised. There will be no relaxation in the methodologies already set out.
- **Commencement of Works**
  - Works will be conducted outside sensitive periods for fish species, i.e. the salmon run and periods of the year when there are low levels of precipitation (the summer months). IFI and the NPWS will be informed of the timing of works.
- **Trigger levels**
  - Agreement will be reached on appropriate trigger levels in relation to water depth at which point works can commence. Abandonment trigger levels shall also be determined.
  - It is stated that a turbidity monitor and water level gauge have been in operation at the bridge since the 3<sup>rd</sup> February 2018. It is stated that the data will be used to set the trigger levels for commencement and emergency cessation of works which are programmed for July and August 2018.
- **Consultation**
  - As well as the daily SOWOR each phase of the works must be approved by all parties before it is allowed to commence.
- **Setting up the site**
  - The site compound will be set up outside of the SAC and SPA to the south-west of the bridge. The three settlement tanks and all ancillary machinery and equipment will be placed within the compound with the exception of the pumps to pump out water from the dammed areas.
  - The pumps will be located 20m from the river bank.
  - A triple line of silt fencing will be put in place between the settlement tanks and the river.
- **Damming the works area**
  - It is proposed to dam two of the five in-river arches at a time. This will enable repair works to one pier and two arches to be carried out in the

dry. A scaffold platform will be erected within each dammed area. Information on the dam (aqua barrier) supplied as well as confirmation that no personnel will wade from bank to bank. A raised access platform from the river bank to the specific area will be provided by the contractor.

- Any minor infiltration will be stopped with double bagged sandbags.
- The dammed area will be electro-fished to ensure any lamprey or other species are removed.
- Any water continuing to infiltrate from the river bed shall be pumped to the settling tanks.

- **Pumping from behind the works area**

- Turbidity readings shall be taken from the tanks prior to, during and after pumping from behind the water barriers.
- Ecologist has the authority to stop all works if levels exceed baseline readings.

- **Vegetation Removal**

- Works include removal of tree stumps from upstream cutwaters and downstream face of piers. No herbicides can be used.
- Ecologist to check crack/crevices within the bridge for bats prior to and during vegetation removal. If a bat is discovered all works shall cease and NPWS will be contacted.

- **Repointing**

- A platform will be erected in the works area. A liner will be installed on this platform to catch mortar that may fall. All mortar shall be disposed of to the on-site skip.
- Works will be carried out by experienced stone masons. No pointing will need to be carried out below the water level.
- In the event that the water cannot be pumped out (due to infiltration from the river bed) these works will proceed within standing water using prompt lime mortar below the water line.

- **Scour protection**

- Scour protection (piers no. 3 & 4 and possibly part of piers 2 & 5) will require the pouring of concrete behind shuttering, propped off the bed or adjacent piers.
- If water cannot be pumped out (due to infiltration from the river bed) works proceed within standing water. As concrete is being poured water will be pumped to a mobile bouzer for disposal off site.
- Sandbags shall be used.
- **Pressurised Grouting**
  - Entry holes shall be drilled into the bridge for grouting at each pier and arch.
  - During the application of grout a trained operator shall be used, hardeners shall be introduced to encourage fast setting, volumes required calculated ahead of application, use of slow flow, monitor volume, personnel visually monitor works, stop works in the event of any leaks and deploy pump immediately.
- **Grout and Concrete Wastewater**
  - Grout and concrete wastewater must not enter waterways. If there is a spill a pump can be immediately deployed to pump any contaminated water from the watercourse.
  - Washout of concrete trucks shall not be carried out near the site.
- **Additional Mitigation Measures**
  - A number of standard good practice mitigation measures are proposed.
- **Mitigation measures for non-qualifying features**
  - Bats were recorded roosting. A bat derogation licence shall be required to exclude bats prior to any works commencing.
  - A pre-construction survey shall be carried out. Works can only begin when the project ecologist is satisfied that no bats remain and all exclusion measures are in place.
- **Monitoring**
  - Water level monitoring will be carried out (as noted above this began in February 2018).
  - All aspects of the work shall be monitored by the LCC engineer.
  - All readings will be taken by the engineer.

- Sandbags shall be checked regularly.

**9.13. Residual effects/Further analysis:**

No significant residual effects are identified following implementation of the recommended mitigation measures.

**9.14. NIS Omissions:**

9.14.1. As noted above, the NIS has not assessed the works to be carried out away from the bridge, specifically the resurfacing element of the road either side of the bridge. The applicant was requested to clarify if these works were to be included or not and requested to amend the NIS accordingly.

9.14.2. The NIS was not amended, albeit the applicant did provide details within the response to the request for Further Information regarding the nature of the works.

9.14.3. I am of the opinion that because the NIS has not addressed this aspect of the works it is not possible for the Board to carry out an appropriate assessment of those works. Accordingly, I recommend that the works to resurface the road are not permitted by the Board.

**9.15. Suggested related conditions:**

Having regard to the nature of the proposed development, the potential direct and indirect effects identified, I consider that the majority of the mitigation measures proposed in the NIS are primarily matters of good practice construction methodology, and I consider that the mitigation measures should be incorporated into a final Construction Environmental Management Plan to be agreed with the relevant statutory agencies/authorities. If the Board is minded to approve the proposed development, I therefore recommend the following conditions:

- Compliance with the mitigation measures contained in the Natura Impact Statement and the Preliminary Construction and Environmental Management Plan.
- Preparation of a Final Construction and Environmental Management Plan, incorporating all mitigation measures indicated in the Natura Impact Statement to be agreed with relevant bodies.

- Appointment of a suitably qualified ecologist to remain on site for the duration of the works.

#### 9.16. **Appropriate Assessment Conclusions**

Having regard to the remedial works proposed and subject to the implementation of best practice construction methodologies and the proposed mitigation measures, I consider that it is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans and projects would not adversely affect the integrity of the River Barrow and River Nore SAC (Site Code 002162) or the River Nore SPA (Site Code 004233), or any other European site, in view of the site's Conservation Objectives.

#### 10.0 **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. I recommend that the works relating to the resurfacing of the road above and either side of the bridge (148m) are not approved and are omitted by condition.

#### 10.1. **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 European Union (Birds and Natural Habitats) Regulations 2011-2015,
- (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 Nore SPA (site code 004233), and the River Barrow and River Nore SAC (site code 002162)



- (e) the policies and objectives of the Laois County Development Plan, 2017-2023,
- (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, and,
- (i) the report and recommendation of the person appointed by the Board to make a report and recommendation on the matter

## 10.2. **Appropriate Assessment:**

10.2.1. The Board agreed with the screening assessment and conclusion carried out in the Inspector's report that the River Nore SPA (site code 004233), and the River Barrow and River Nore SAC (site code 002162), are the only European Sites in respect of which the proposed development has the potential to have a significant effect.

10.2.2. The Board considered the Natura Impact Statement and associated documentation submitted with the application for approval, the mitigation measures contained therein, the submissions and observations on file, and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the affected European Sites, namely River Nore SPA (site code 004233), and the River Barrow and River Nore SAC (site code 002162), in view of the site's conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

- i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- ii. the mitigation measures which are included as part of the current proposal, and
- iii. the conservation objectives for the European Sites.

In completing the appropriate assessment, the Board accepted and adopted the screening and the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, 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 Sites, in view of the site's conservation objectives.

### 10.3. **Proper Planning and Sustainable Development/Likely effects on the environment:**

- 10.3.1. 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.

## 11.0 **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.

**Reason:** In the interest of clarity.

2. This approval shall not be construed as any form of consent or agreement to carry out the road resurfacing works above the bridge.

**Reason:** In the interest of clarity.

3. The County Council and any agent acting on its behalf shall comply with the mitigation measures contained in the Natura Impact Statement which was submitted with the application.

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

4. Prior to the commencement of development, the local authority shall agree with the relevant statutory agencies a Construction Environmental Management Plan, incorporating all mitigation measures indicated in the Natura Impact Statement.

**Reason:** To ensure the protection of European sites.

5. No works shall take place during the peak spawning period for salmonids between 1<sup>st</sup> October and 30<sup>th</sup> April inclusive.

**Reason:** In the interest of nature conservation and to ensure the protection of the European sites.

6. 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 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.

7. A suitably qualified ecologist shall be appointed by the County Council to oversee the site set-up and works and the ecologist shall be present on site during all works. Upon completion of works, an audit report of the site works shall be prepared by the appointed ecologist and submitted to the County Council to be kept on record.

**Reason:** In the interest of nature conservation, to prevent adverse impacts on the European sites and to ensure the protection of the Annex 1 habitats and Annex 11 species and their Qualifying Interests for which the sites were designated.

8. 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

installation of the dam (aqua barrier) around each pier.

**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.

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Ciara Kellett

Senior Planning Inspector

18<sup>th</sup> June 2018