

Hartley Bridge, Co. Leitrim

Summary Planning Report

September 2021

Document Control

Document Number: 182164 - Summary Planning Report - PLO

Revision	Description	Date	Prepared	Checked	Approved
PLO	Planning Issue	10/09/2021	J. Berry	P. Casey	P. Casey



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1 Introduction

PUNCH Consulting Engineers was appointed by Leitrim County Council to provide a summary planning report for submission of the Section 177AE application to An Bord Pleanála for the proposed Hartley Bridge Development. It is noted that the proposed Hartley Bridge is located on the county boundary and hence the proposed work extents are located within both County Leitrim and County Roscommon.

The purpose of this report is to outline the planning requirements and guidelines associated with the proposed development with regards to the Leitrim County Development Plan 2015-2021 and the Roscommon County Development Plan 2014-2020. Furthermore, legislation relating to the environmental and ecological impacts, on both a national and EU level, is identified and addressed with the assistance of third-party reports, which have been produced by MKO Planning and Environmental Consultants.

Leitrim Co Co and Roscommon Co Co has agreed in accordance with the provisions of Section 85 of the Local Government Act, 2001 that Leitrim County Council will be the lead authority for this project.

2 Site Location and Description

The existing Hartley Bridge lies along the L3400 crossing over the River Shannon to the north (c. 2.8km) of Carrick-on-Shannon. The bridge is currently primarily accessible by vehicle via the existing local road network (L3400 and R280). The location of Hartley Bridge is illustrated below in Figure 2-1.

The bridge, which is c. 75m in length, is at-grade with the adjoining roads on both the east and west.

The existing bridge was constructed in 1915 and comprises of a six-span integral structure and an adjoining two-span reinforced concrete structure, butting the six-span structure to the west.

The surrounding area could be described as a rural setting, with some residential clusters and agricultural grassland.

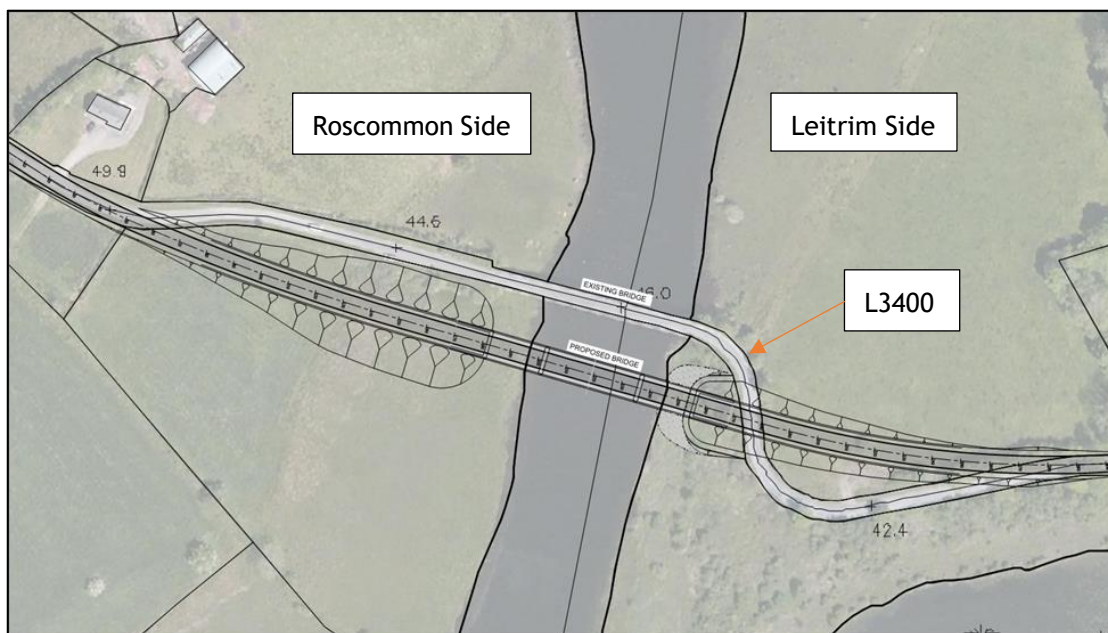


Figure 2-1: Existing and Proposed Bridge Locations

In terms of naming convention, please note that the western bank corresponds with the Roscommon bank, and the eastern bank corresponds with the Leitrim bank. For clarity and ease of understanding when referring to drawings, etc. the west/east naming convention will be used due to the more universally recognisable nature of the description.

The requirement for proposed replacement of the bridge has arisen as a result of a structural assessment of the bridge undertaken in 2016 by Doran Consulting (Document reference: “*Stage 1 Structural Assessment Report, Bridge Ref.LM-LP3400-001.00, January 2016*”) and commissioned by Leitrim County Council. This assessment indicated that the bridge was in poor condition and unfit for live loads exceeding 3 tonnes. As a result, the existing bridge has been limited to a 3 tonne vehicle weight limit and a 2.5m vehicle height restriction.

A subsequent Stage 2 Structural Assessment of Hartley Bridge (Document reference: “*Hartley Bridge Structural Investigation & Assessment - Stage 2 Assessment Report, August 2017*”) was undertaken by Roughan O’Donovan. It further progresses the previous assessment carried out by Doran Consulting in 2016.

As noted in both assessments, the deck soffit and beams exhibited widespread spalling with exposed reinforcement evident throughout the soffit of the bridge deck, longitudinal beams and transverse beams. The widespread nature of the spalling indicates that the bridge deck is nearing the end of its serviceable life with deterioration of fabric of the structure likely to accelerate in the short to medium

term. As a result, the maintenance liability and associated cost are likely to increase over the remaining life of the structure. Significant remedial works are required to address the existing defects and an onerous inspection and maintenance regime will be required going forward in order to maintain the deck in a serviceable condition.

The findings of the Stage 2 Assessment's visual inspection conclude it is evident that the bridge is nearing the end of its serviceable life with deterioration of fabric of the structure likely to accelerate in the short to medium term. It also recommends that provision should be made for replacing the structure in the short to medium term subject to the findings of an economic appraisal of the options.



Figure 1 - Existing Hartley Bridge Elevation



Figure 2 - Example of extensive spalling and reinforcement corrosion



Figure 3 - Example of extensive spalling and reinforcement corrosion



Figure 4 - Example of extensive spalling and reinforcement corrosion

3 Proposed Development

The proposed development consists of the following:

- 1.) The demolition of the existing Hartley bridge over the River Shannon
- 2.) Construction of new 3-span replacement bridge structure 25m downstream of the existing bridge crossing
- 3.) Construction of the realigned (vertical and horizontal) L3400 on approaches to the new bridge structure.
- 4.) Decommissioning of defunct sections of the L3400.
- 5.) All ancillary works associated with the above works, including:
 - a. Temporary Site Compound
 - b. Drainage and other Utility Works
 - c. Road Safety Barriers
 - d. Fencing

The proposed works are outlined in a series of drawings prepared by PUNCH Consulting Engineers and are supplied as part of this submission. The proposed demolition of the existing bridge will follow the demolition sequence as outlined in PUNCH drawing no. 182-164-107.

The proposed replacement bridge consists of a three-span precast concrete structure totalling a length of 75m, with in-situ deck and precast/metal parapet upstands. The foundations shall comprise of piles onto which the abutments and piers sit. As outlined in Figure 2-1 above, the proposed location of the bridge is 25m downstream of the existing bridge. For further information relating to the replacement bridge, please refer to PUNCH drawing no. 182-164-104.

The proposed realignment works associated with the local road on both approaches to the bridge consists of approximately 135m on the western bank and 110m on the eastern bank, with the removal of an existing sharp bend on the eastern side. For further information relating to the realignment of the aforementioned roads, please refer to PUNCH Drawing 182-164-102.

A detailed description of works and an indicative programme of works is provided in the Construction and Environmental Management Plan (Document reference: CEMP D3 - 2020.11.06 - 181209), which was produced by MKO in consultation with PUNCH Consulting Engineers.

3.1 Summary of Contents

This Section 177 AE application is accompanied by the following documentation:

1. PUNCH Consulting Engineers
 - a. Outline Construction & Demolition Waste Management Plan (182164 Hartley Bridge-OCDWMP-PL0)
 - b. Outline Traffic Management Plan (182164 Hartley Bridge-OTMP-PL0)
 - c. Preliminary Health & Safety Plan (182164 Hartley Bridge-PSHP-PL0)
 - d. Visual Impact Assessment (182164-VIA-PL0)
 - e. Civil & Structural Engineering Drawing Package
2. MKO Environmental & Planning Consultants
 - a. Appropriate Assessment Screening Report (AASR D2 - 2020.11.06 - 181209)
 - b. Construction & Environmental Management Plan (CEMP D3 - 2020.11.06 - 181209)
 - c. Ecological Impact Assessment (EclA D2 - 2020.11.06 - 181209)
 - d. Environmental Impact Assessment Screening Report (EIASR D3 - 2020.11.06 - 181209)
 - e. Natura Impact Statement (NIS D2 - 2020.11.06 - 181209)
3. Hydrographic Surveys Ltd.
 - a. Bathymetric Survey Drawings (Drawings no. PH20022 D01 - D04)

4 Legislation and Guidelines

4.1 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) 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).

4.2 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.

4.3 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.

4.4 Planning and Development Acts 2000 (as amended)

Part XAB of the Planning and Development Acts 2000-2020 sets out the requirements for the appropriate assessment of developments which could have an effect on a European site or its conservation objectives.

1. 177(AE) sets out the requirements for the appropriate assessment of developments carried out by or on behalf of local authorities.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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:
 - a) The likely effects on the environment.
 - b) The likely consequences for the proper planning and sustainable development of the area
 - c) The likely significant effects on a European site.

5 Leitrim Development Plan Policy Context

The subject site is within an area to which the Leitrim County Development Plan 2015-2021 applies. The sub-sections below outline extracts from the development plan which have been identified as relevant to the proposed Hartley Bridge Development. The content of the below subsections has been considered in the design and development of the proposed Hartley Bridge replacement.

5.1 Section 2.1 - Core Strategy

5.1.1 Section 2.1.8 -Transport Infrastructure

In subsection 2.1.8, the provision of “a modern, efficient and safe road network” is outlined as being vital for the future development of Leitrim. The proposed development is located along an “intra-county” route. For these routes, the Leitrim Development Plan indicates that the carrying capacity must be preserved.

5.1.2 Section 2.1.10 -Protection of the Natural Environment and Natural Heritage

Subsection 2.1.10 refers to Leitrim County Council’s strategic goals in relation to the protection of the natural environment and natural heritage:

- Climate change: The Development Plan will include practical measures to address both the drivers and side effects of climate change
- Ecological Corridors: Section 4.8.3.6 (discussed in section 5.3.2.6 of this summary report) of the Plan recognises a number of key ecological corridors located outside designated sites. It is the policy of Council to protect these corridors connecting protected and designated sites;
- Protection of Water Courses: Section 4.8.4 (discussed in section 5.3.3 of this summary report) of the Development Plan refers to the requirements of the Water Framework Directive and River Basin Management.

5.1.3 Section 2.2.2 -Environment and Heritage

Subsection 2.2.2 refers to Leitrim County Council’s strategic goals in relation to the environment and heritage. The goals which are likely to be of relevance to the proposed development are identified below:

- (a) To adopt the *precautionary principle*^{*} in respect of development proposals where significant environmental, including health, implications are involved
- (b) To protect, maintain and enhance the quality of the built and natural environment
- (e) To minimise environmental pollution to air, water or land and to strictly control hazardous development
- (g) To adopt a regional approach in the protection, conservation and management of the environment, co-operating with neighbouring counties in the protection of watercourses and landscapes and the disposal of waste, *Replacement Waste Management Plan for the Connacht Region 2006-2011*, the River Basin Management Plans, and the Lough Melvin Catchment Management Plan
- (h) To recognise that Leitrim’s archaeological, natural and built heritage are important elements in the long-term economic development of the County and to promote the conservation and enhancement, public access and enjoyment
- (i) To protect the unique character of Leitrim’s landscapes

* Note: The “precautionary principle” enables rapid response in the face of possible danger to human, animal or plant health, or to protect the environment. In particular, where scientific data do not permit a complete evaluation of the risk, recourse to this principle may, for example, be used to stop distribution or order withdrawal from the market of products likely to be hazardous. Further information is available at: http://europa.eu/legislation_summaries/consumers/consumer_safety/l32042_en.htm

5.1.4 Section 2.2.4 -Transport and Infrastructure

Subsection 2.2.4 outlines the strategic goals associated with transport and infrastructure. The following goal has been identified as being applicable to the proposed development:

- (c) To promote the improvement of the existing road network to aid economic development, enhance safety and minimise negative environmental impacts.

5.2 Section 4.6 - Transportation

5.2.1 Section 4.6.6 - Roads

In Subsection 4.6.6, the proposed development is directly referenced. It is stated that “This Council is the administering Authority in the proposal to construct a replacement bridge over the River Shannon linking County Leitrim with County Roscommon on Local Road LP03400 at Hartley Bridge”

Furthermore, the replacement of Hartley bridge has been identified as an objective for Leitrim County Council:

Objective 37: It is an objective of the Council to design and construct a new bridge over the River Shannon at Hartley on LP03400 local road to replace the existing deficient bridge.

5.3 Section 4.8 - Protection of the Natural Environment / Natural Heritage

5.3.1 Section 4.8.1 - General

Subsection 4.8.1 of the Leitrim County Development Plan 2005-2021 addresses the council’s goals and priorities with respect to the protection of the natural environment/heritage. The goals are listed as being:

- The protection of fragile ecosystems and species and habitats so as to ensure that biodiversity is maintained and vulnerable habitats are protected;
- The protection and conservation of non-renewable resources and their settings, where settings are important;
- The protection and, where necessary and possible, the enhancement of the distinctive character of the natural heritage of County Leitrim;
- The enhancement of opportunities for the enjoyment of the natural heritage

Similarly, the priorities are listed as being:

- (i) Avoid unnecessary harm to the natural heritage where possible
- (ii) Reduce the effects of harm where it cannot be avoided
- (iii) To conserve and protect the natural heritage resource for the benefit of future generations and
- (iv) Identify enhancement to the natural heritage where possible

5.3.2 Section 4.8.3 - European, National and other Environmentally Sensitive Sites:

The Leitrim County Development Plan 2015-2021 cites the “European Birds Directive (79/409/EEC)”, the “European Habitats Directive (92/43/EEC)”, the “Wildlife Act 1976”, the “Wildlife (Amendment) Act 2000” and Part XIII of the “Planning & Development Act 2000, as amended” as legislation relevant to the conservation of wildlife. The objectives of the legislation (both European & National) are to provide for the protection and conservation of the flora and fauna in the habitats in which they occur.

Three categories of designated sites are identified and defined in section 4.8.3:

1. Special Areas of Conservation (SAC): SAC’s have been, and are being, designated under the EU Habitats Directive to conserve habitats and species of European importance.

2. Special Protection Area (SPA): SPAs have been, and are being, designated under the EU Habitats Directive to protect birds which are rare, in danger of extinction or vulnerable to changes in habitat and which need protection.
3. Natural Heritage Areas (NHA): NHA's have been, and are being, designated to conserve habitats and species of national importance and sites of geological interest, under the Wildlife (Amendment) Act, 2000.

It is noted that areas adjoining environmentally sensitive sites shall be protected from inappropriate development.

5.3.2.1 Section 4.8.3.1 - Natura Sites:

It is outlined that the term "Natura Sites" refers to both Special Areas of Conservation and Special Protection Areas. In these areas, importance is placed on ensuring that the objectives of "EU Habitats Directive (92/43/EEC Directive)" are not compromised due to the deterioration and disturbance of natural habitats and the habitats of species.

It is outlined that an "Appropriate Assessment" is required for any plan or project which is likely to have a significant effect on a natura site (either individually or in combination with other plans or projects). In such a case, the implications of the proposed project or plan shall be assessed with respect to the site's conservation objectives.

Only after it has been ascertained that the plan or project will not adversely impact the integrity of the site, shall the Council agree to the proposal. In some instances, the opinion of the general public may be sought.

In such an event whereby the Appropriate Assessment returns a negative implication for the site and there is an absence of feasible alternative solutions, the proposed plan or project may still proceed, on the conditions that the project is of overriding public interest and that the Council take appropriate action. "Appropriate Action" in this instance includes the following:

- The Council shall ensure that the overall coherence of Natura 2000 is protected by adopting compensatory measures.
- The Council shall inform the Commission of the compensatory measures adopted.
- If the site is found to host a priority natural habitat type, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance to the environment or, further to an opinion from the European Commission, to other imperative reasons of overriding public interest.

This section also includes the provision of several Leitrim County Council policies:

Policy 76: It is the policy of the Council to protect and conserve Special Areas of Conservation and Special Protection Areas including 'Candidate' and 'Proposed' areas.

Policy 77: It is the Policy of the Council to ensure that all Plans and Projects that have the potential to negatively impact on the integrity of the Natura 2000 network, will be subject to a Habitats Directive Assessment (HDA), in accordance with Article 6 of the Habitats Directive and in accordance with best practice and guidance.

Policy 78: No projects or programme giving rise to significant adverse; direct, indirect, secondary or cumulative impacts upon the integrity of any Natura 2000 sites, having regard to their qualifying interests and conservation objectives, arising from their size, scale, area or land take, shall be permitted on the basis of this Plan (either alone or in combination with other plans or projects) .

5.3.2.2 Section 4.8.3.2 - Special Areas of Conservation

It is required under European Union legislation (EU Habitats Directive (92/43/EEC)) for member states to designate candidate Special Areas of Conservation and to maintain the quality of the habitats and species for which they have been designated.

This is further captured in the Leitrim County Development Plan 2015-2021 through the provision of the following objectives:

Objective 62: It is an objective of the Council to protect those sites identified as Special Areas of Conservation as well as any other sites that may be so identified during the lifetime of this plan.

Objective 63: It is an objective of the Council to protect the character, appearance and quality of the habitats and semi-natural features in County Leitrim such as woodlands, hedgerows, peatlands, wetlands and artificial waterways of historic or ecological importance.

Objective 64: It is an objective of the Council in partnership with the relevant agencies to promote the development and implementation of codes of best practices through initiatives such as; the Local Floral Pride Initiatives, Environmental Partnership and the Green Schools projects.

5.3.2.3 Section 4.8.3.3 - Special Protection Areas

In relation to Special Protection Areas (SPAs), the Leitrim County Development Plan 2015-2021 references the Department of Arts, Heritage, Gaeltacht and the Islands as the designator of SPAs, in accordance with the EU Birds Directive (79/409/EEC). The development plan also defines the following objective:

Objective 65: It is an objective of the Council to protect the following proposed Special Protection Areas and all others as they become proposed and designated during the lifetime of this plan.

5.3.2.4 Section 4.8.3.4 - Natural Heritage Areas

In relation to Natural Protection Areas (NHA), or proposed NHAs, the Leitrim County Development Plan 2015-2021 references the National Parks and Wildlife Service of the Department of the Environment, Heritage and Local Government as their designator, in accordance with the Wildlife (Amendment) Act 2000. The development plan also defines the following policy and objectives:

Policy 79: It is the policy of the Council to protect NHA sites. The Council acknowledges that not all sites of ecological importance have been identified and will protect any such site of significance, proposed as an NHA.

Objective 66: It is an objective of the Council to protect all Natural Heritage Areas and those proposed for designation either before or during the lifetime of this plan so as to recognise that the process of designation of such sites is ongoing, with new sites being added and boundaries of existing sites being adjusted, as better information becomes available.

Objective 67: It is an objective of the Council to protect the following proposed Natural Heritage Areas and all others as they become proposed during the lifetime of this plan.

Objective 68: It is an objective of the Council to protect the following Natural Heritage Areas and all others as they become designated during the lifetime of this plan, Table 16 refers.

5.3.2.5 Section 4.8.3.5 - Development in, or near, Ecologically Sensitive Sites

This subsection applies to proposed developments which are located in, or near ecologically sensitive areas. In such instances, an adequate level of assessment of the ecological impacts of the development must be undertaken and presented to the planning authority. The assessment should include:

- a) Opportunities for alternative siting or potential mitigating measures
- b) Opportunities to enhance nature conservation
- c) The potential damage to habitats and/or species
- d) The possibilities for replacement sites

It should be noted that the above applies to both designated and proposed designated areas.

5.3.2.6 Section 4.8.3.6 - Nature Conservation and Important Ecological Corridors

In this section, the River Shannon System is identified as an important ecological corridor. The following policies and objective are defined:

Policy 80: It is the policy of the Council to protect ecological networks linking protected and designated important sites within the County, in accordance with Article 10 of the Habitats Directive.

Policy 81: It is the policy of the Council to treat the uplands of North Leitrim located above the 160m contour, as an ecologically-sensitive entity, where these uplands are not already designated as such.

Objective 69: It is an objective of the Council to encourage appropriate management of landscape features, particularly through the development management process and by the use of planning agreements with landowners and developers, where appropriate.

5.3.2.7 Section 4.8.3.7 - Local Biodiversity Plan

In this section, the Actions for Biodiversity 2011-2016 Ireland's 2nd National Biodiversity Plan is referenced, and it is noted that Biodiversity loss has continued at an alarming rate over the period of the previous plan, with the following identified as the primary causes:

- a) Habitat change
- b) Over-exploitation
- c) Pollution
- d) Invasive alien species
- e) Climate change

It is acknowledged that the referenced document requires that Planning Authorities prepare and implement local Biodiversity Action Plans and the following objective is defined:

Objective 70: It is an objective of the Council to prepare a Local Biodiversity Plan in consultation with relevant stakeholders within the lifetime of this County Development Plan, subject to specific funding being made available by the Department of the Environment, Community and Local Government.

5.3.2.8 Section 4.8.3.10 - Trees, Woodlands & Hedgerows

This section refers to the protection, preservation and provision of trees, woodlands & hedgerows.

It is noted that developers are encouraged to landscape new roadworks, housing schemes and other works with deciduous trees and other native species, of local provenance where possible. Furthermore, new developments will be required to integrate existing mature trees of amenity value into the new schemes, given that the Planning Authority finds it to be appropriate and practical.

A number of objectives are defined:

Objective 76: It is an objective of the Council to discourage the felling of healthy mature trees to facilitate development and to encourage the retention of healthy mature trees within developments.

Objective 77: It is an objective of the Council to use Tree Preservation Orders to protect important trees, groups of trees or woodlands, as appropriate during the lifetime of this plan.

Objective 78: It is an objective of the Council to protect and preserve existing hedgerows and minimise their removal. Where their removal is necessary to seek their replacement with new hedgerow material native to the area.

Objective 79: It is an objective of the Council to require a bond in all relevant permissions relating to the retention, relocation or re-establishment of hedgerows, which will be returned on the successful retention, relocation or re-establishment of the hedgerow concerned within a given period.

Similarly, the following policy is defined:

Policy 83: It is the Council's policy to ensure the preservation of sound deciduous trees, woodlands and native hedgerows, without excessively inhibiting development

5.3.3 Section 4.8.4 - Protection of Water Courses

5.3.3.1 Section 4.8.4.2 - The Water Framework Directive

This section relates to the Water Framework Directive (WFD) which sets out a framework for the comprehensive management of water resources in the European Community. The general aim of the WFD is defined as "maintaining 'high status' of waters where it exists, preventing any deterioration in the existing status of waters and achieving at least 'good status' in relation to all waters by 2015".

5.3.3.2 Section 4.8.4.2 - River Basin Management Plans

This section relates to River Basin Management Plans, which set out a program of measures aimed at protection and improvement of the aquatic environment. The objectives of these plans include:

- (a) To prevent further deterioration in water quality;
- (b) To improve all waters including surface, ground and coastal waters to 'Good' status by 2015;
- (c) To manage water bodies based on river basins or catchments.

It is noted that The River Shannon has been identified as a River Basin District, which covers all of the River Shannon including its tributaries. Furthermore, it is acknowledged that the County's watercourses have been identified as "one of its most important assets" and will be protected by the Council.

A number of policies relating to these management plans are defined:

Policy 86: It is the policy of the Council to control development in accordance with the aims of the Water Framework Directive generally and more particularly with the goals and policies of the three River Basin Districts which cover all water bodies in Leitrim.

Policy 87: It is the policy of the Council to commit itself to continue to make appropriate and considered input into the preparation and implementation of the River Management Plans and to ensure that there is adequate alignment between the Development Plan and the future Water Management Plans.

Policy 88: It is the policy of the Council to fully implement the programme of measures (and where appropriate the additional recommendations) of the Shannon, North Western International and Western River Basin District Plans, as appropriate, in co-operation with the other relevant local authorities and statutory bodies, subject to funding being available.

Policy 89: It is the policy of the Council to promote the improvement of water quality in the rivers, lakes and ground water bodies in line with the objectives of the three River Basin Management Plans.

Policy 90: It is the policy of the Council to establish source protection zones for all drinking water sources serving more than 50 people. In these zones development shall be strictly controlled.

Policy 91: It is the policy of the Council, in co-operation with the appropriate statutory bodies, to facilitate the free flow of rivers and streams in or partially in the county subject to environmental considerations.

Policy 92: It is the policy of the Council to identify, and if resources or circumstances permit, to secure suitable lands and install Integrated Constructed Wetlands (ICW), as part of Sustainable Drainage Systems (SuDS) for all the towns and villages for which land use strategies are prepared.

Policy 96: In order to maintain, improve and enhance the environmental and ecological quality of our waters, it is the policy of the Council to promote the implementation of the Three River Basin Water Quality Management Plans for ground, surface and coastal waters in the County, as part of the implementation of the EU Water Framework Directive.

5.4 Section 4.9 - Protection of the Built Environment

Subsection 4.9 refers to all features which have been built by man in the environment including buildings, bridges, archaeological sites and field boundaries. In particular, the conservation of special examples of the built heritage is addressed.

5.4.1 Section 4.9.1 - General

It is outlined that Leitrim County Council “will seek to promote environmental awareness and good practices, together with high standards of design in all development proposals”.

The appointment of a Heritage Officer/Conservation Officer is described as being necessary to ensure good practice in building and conservation.

5.5 Section 5.5- Roads and Parking Development Management Standards

Subsection 5.5 refers to access onto public roads and sightlines. It is outlined that proposed access onto public roads associated with any proposed developments must not create a traffic hazard or interfere with the free flow of traffic.

5.6 Section 5.6 - Other Development Management Standards

5.6.1 Environmental Impact Assessment

It is indicated that an Environmental Impact Assessment will be required if the proposed development is listed in Schedule 5 of the *Planning and Development Regulations* or other developments which are considered likely to have significant environmental effects (Determination of environmental impacts in accordance with Schedule 7 of the *Planning and Development Regulations*)

5.6.2 Appropriate Assessment

It is outlined that a Natura Impact Report/Statement is required for any proposed developments to ensure that there are no likely significant effects on the integrity of any Natura 2000 sites and that the requirements of Article 6(3) and 6(4) of the EU Habitats Directive are fully satisfied.

If found to be likely to have a significant effect on a Natura 2000 site, any proposed development must be subjected to an Appropriate Assessment, which must carry out an analysis of potential effects on the site. The Appropriate Assessment findings shall be included in the Natura Impact Statement/Report in accordance with legislative requirements.

The plan or project will proceed only after it has been ascertained that it will not adversely affect the integrity of the site or where in the absence of alternative solutions, the plan or project is deemed imperative for reasons of overriding public interest, all in accordance with the provisions of article 6(3) and 6(4) of the EU Habitats Directive.

5.6.3 Section 5.6.5 - Noise

It is noted that noise levels associated with any proposed development should generally not exceed 55 dB from 1m outside the most exposed window of any residential unit.

5.7 Section 6 - Statement on the Likely Impact on the Environment of Implementing the Plan

5.7.1 Section 6.1 - Strategic Environmental Assessment

In this section, the Leitrim County Development Plan 2015-2021 is discussed in relation to a Strategic Environmental Assessment (SEA), which was undertaken in accordance with the EU SEA Directive 2001/42/EC.

It is expected that none of the policies outlined in the development plan are anticipated to have a significant negative impact on the environment. In some instances, the SEA highlights developments that have the potential to impact on the environment, however the Planning Authority is confident that such impacts can be eliminated or mitigated to an acceptable level and would therefore not be significant.

5.7.1.1 Section 6.2 - Natura Impact Report

In this section, the Leitrim County Development Plan 2015-2021 is assessed with respect to its likely impact on Natura 2000 sites. It was found that:

“The Plan has been formulated to ensure that uses, developments and effects arising from developments, based upon the Plan (either individually or in combination with other plans or projects) shall not give rise to significant adverse impacts on the integrity of any Natura 2000 site”. As a result, it is concluded that the development plan does not require further assessment to demonstrate compliance with the Habitats Directive 92/43/EEC.

6 Roscommon Development Plan Policy Context

As illustrated in Figure 2-1, the proposed Hartley Bridge development is located on the Leitrim/Roscommon border. As a result, consideration must be given to the Roscommon County Development Plan 2014-2020. The sub-sections below outline extracts from the development plan which have been identified as relevant to the proposed Hartley Bridge Development. The content of the below subsections has been considered in the design and development of the proposed Hartley Bridge replacement.

6.1 Section 2 - Core Strategy & Settlement Policy

6.1.1 Section 2.5 Landscape, Natural Heritage and Built Heritage

Section 2.5 refers to the key environmental challenges facing the Roscommon landscape and to the many features of landscape that are afforded European and National protection.

It is stated that “the council is aware of the significance of maintaining the integrity of sensitive areas (in terms of for example environment, landscape sensitivity and groundwater vulnerability) and will seek to limit development to that appropriate and considered sustainable in these areas” which may be applicable to the proposed development.

- **Core Policy 2.10:** To identify and protect the unique and diverse natural heritage of County Roscommon in terms of landscape, natural resources such as rivers and lakes and waterways along with the built environment of historical, architectural and cultural value.

6.1.2 Section 2.7.3 Road & Rail

Subsection 2.7.4 refers to Roscommon’s predominantly rural based population and outlines the high dependency on motor vehicle transport.

6.2 Section 4 - Infrastructure

6.2.1 Section 4.1 Transportation and Movement

Section 4.1 emphasises the importance of good connectivity and access infrastructure for the sustainable development of the region and its reliance on car transportation given the region’s largely dispersed and rural based population.

A Strategic Aim which is likely to be of relevance to the proposed development is identified below:

- Develop a safer, more efficient and integrated transport system that will improve the road network and particularly alternative forms of transport to serve the urban and rural population of Roscommon.

6.2.2 Section 4.1.3 Road Transportation and Movement

Subsection 4.1.3 refers to Roscommon’s typically dispersed rural based population and road network and how while it is “expensive to provide and maintain, is necessary for the conveyance of the county’s primary mode of transportation (the private car).”

While there is no specific reference to the proposed development in the *Planned Non-National Road Improvements 2014-2020* table 4.3, they do refer to the Road Restoration and Specific Improvement Grants that provide funding for non-national road improvements and state that the Council is committed to maintaining and managing non-national roads in an economic and efficient manner, with a particular emphasis on safety.

Objective 4.23: Carry out improvement works on non - national roads as per Table of non - national Roads priorities in Section 4.1.3 of the County Development Plan.

6.2.3 Section 4.5.3 Construction and Demolition Waste

Subsection 4.5.3 seeks to promote the reuse and recycling of construction and demolition waste. Roscommon County Council also promotes the development of an integrated plan for managing waste including wastes generated during the construction phase of development. In this regard, developers are directed to the *Department of Environment, Community and Local Government's Best Practice Guidelines on the preparation of Waste Management Plans for Construction & Demolition Projects, July 2006*.

The following policies have been identified as being applicable to the proposed development:

Policy 4.48: Promote reduction, increased re-use and recycling of materials from waste sources and co-operate with local retailers and residents' associations in managing collection points for recycling goods.

Policy 4.50: Require the incorporation of waste management measures in the design and construction of developments, particularly those that are likely to give rise to large amounts of C&D waste and require the preparation of Waste Management Plans for the construction stages of developments where necessary.

6.3 Section 7 - Natural Heritage and Landscape Character Assessment

6.3.1 Section 7.1 Designated Sites

This section refers to a wide range of different sites have been (or will be) designated under National & EU legislation and under the Ramsar Convention on Wetlands. This network is made up of sites of European importance - Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) - known collectively as "Natura 2000" or "European Sites", and sites of National importance - Natural Heritage Areas (NHAs).

It is a strategic aim of Roscommon County Council to:

- Protect, conserve and enhance the biodiversity and natural heritage of designated sites in County Roscommon.
- Identify, protect and conserve sites of natural heritage importance, in co-operation with the relevant statutory authorities.

Special Areas of Conservation (SACs)

Any development in, near or adversely affecting an SAC should avoid any significant adverse impact on the features for which the site has been designated or proposed for designation. There are 28 SACs in Co. Roscommon.

Special Protection Areas (SPAs)

Any development in, near or adversely affecting an SPA should avoid any significant adverse impact on the integrity of the site. There are 8 SPAs in Co. Roscommon.

Natural Heritage Areas (NHAs)

Any development in, near or adversely affecting a Natural Heritage Area should avoid any significant adverse impact on the features for which the site has been designated. There are currently eleven Natural Heritage Areas in Co. Roscommon.

Development in or near Heritage Areas

Planning authorities must ensure that any development proposal which is likely to have a significant effect on a Special Area of Conservation, Natural Heritage Area, Special Protection Area for birds, or other area designated under statute for the conservation of features of natural or geological interest, or other designated area, is authorised only to the extent that the planning authority is satisfied it will not adversely affect the integrity of the area.

Appropriate Assessment (AA)

It is necessary to consider the nature conservation implications of any plan or project on the Natura 2000 site network using a process known as Appropriate Assessment. It is the responsibility of the competent authority to carry out AA screening process. It is the subsequent responsibility of Roscommon County Council to carry out an Appropriate Assessment of the application to assess the effects of the plan or project on the Natura 2000 site.

Policies and Objectives for Designated Sites

Policy 7.1: Protect proposed and designated Natural Heritage Areas, Special Protection Areas and Special Areas of Conservation.

Policy 7.2: Protect geological Natural Heritage Areas as they become proposed, designated and notified to Roscommon County Council during the lifetime of this plan.

Policy 7.3: Protect any additional areas that may be proposed or designated during the lifetime of the plan in accordance with Policy above.

Objective 7.1: Maintain or restore the favourable conservation condition of a designated or proposed designated site under the control of the Planning Authority.

Objective 7.2: Ensure Appropriate Assessment Screening, and, where required, Appropriate Assessment, is carried out for any plan or project which, individually, or in combination with other plans and projects is likely to have a significant direct or indirect impact on any Natura 2000 site or sites; in accordance with best practice guidance as issued by the National Parks & Wildlife Service of the Department of Arts, Heritage & the Gaeltacht and/or the Department of Environment, Community & Local Government.

6.3.2 Section 7.3 Nature Conservation in the wider countryside

Linkages and wildlife corridors between designated sites and important habitats must also be given consideration.

Hedgerows

It is important that hedgerows be retained where possible, especially townland boundary, roadside hedges and hedgerows linking other habitats, forming a wildlife corridor.

Turloughs

Turloughs are priority habitats listed on Annex I of the EU Habitats Directive. Turlough sites of European and national conservation importance are designated. It is important to identify turloughs of local conservation importance and to be aware of the hydrological impacts of development on turloughs.

Wetlands, Watercourses and Fens

Wetlands are a significant feature of the landscape in Co. Roscommon, such as the Shannon and Suck Rivers and their associated callows or floodplains are major habitats. The EU Water Framework Directive and the Ramsar Convention provide guidance for the protection of wetlands.

Objectives for Nature Conservation:

Objective 7.5: Protect and promote the conservation of biodiversity outside of designated areas, while allowing for appropriate development, access and recreational activity.

Objective 7.8: Identify, protect and conserve, in co-operation with the relevant statutory authorities and other groups, vulnerable, rare and threatened species or wild flora and fauna and their habitats. These include plant and animal species afforded protection under the Wildlife Acts and the EU Habitats & Birds Directives.

Objective 7.9: Retain where feasible and enhance important landscape features, such as lakes, rivers, wetlands, stonewalls, hedgerows etc, which form wildlife corridors and link habitats, where they provide, stepping-stones necessary for wildlife to flourish.

Objective 7.15: Ensure that any development, which impacts on a townland boundary, roadside hedgerows or hedgerows which form links with other habitats and form wildlife corridors; should first seek to retain, translocate or replace with native species of local provenance, these hedges. The overall goal should be to have no net loss of the hedgerow resource.

Objective 7.16: The retention, re-location, or re-establishment of hedgerows in planning consents shall be an aim of the Planning Authority for those seeking Planning Permission where feasible.

Objective 7.18: Commit to using native species wherever possible in its landscaping work and on Roscommon County Council property.

Objective 7.25: Ensure that the County's wetlands are retained for their biodiversity and flood protection values.

6.3.3 Section 7.4 Inland Waterways

This section defines a number of policies and objectives that are likely to be relevant to the proposed development including:

Policy 7.8: Safeguard and enhance riparian zones along waterways as well as canal towpaths where they occur in the interests of enhancing the public's interface and enjoyment of these natural amenities.

Objective 7.30: Maintain and preserve the aesthetic value of inland waterways and the waterway corridors in the county from the impacts of dispersed and highly visible development.

Waterways Ireland: In addition to the above, it has been necessary to ensure the satisfaction of Waterways Ireland with regard to the proposed navigation arrangements associated with the proposed Works. PUNCH Consulting Engineers has consulted with Waterways Ireland in advance of the planning application to outline how proposals comply with river navigation requirements and actually represents an improvement on the current scenario.

The proposed new bridge air draft of 4.899m (relative to the Ordinary Summer Level) is an improvement of the current air draft of 4.472 achieved at the existing Hartley Bridge.

The proposed realignment for navigation channel and draft has been undertaken and informed by a Bathymetric Survey requested by Waterways Ireland. The required draft of 1.7m will be achieved for the proposed widened navigation channel and will require limited dredging to re-profile locally (149.2m³ total). Proposed advanced signage is proposed via a series of green and red markers. Refer to PUNCH Drawings 182164-108 and 109 for illustration.

Please refer to Appendix A for evidence of pre-planning consultations with Waterways Ireland.

6.3.4 Section 7.6 Landscape Character Assessment

Ireland has signed and ratified the Council of Europe's European Landscape Convention (2000). This requires that all Local Authorities consider 'the character of the landscape' when drawing up objectives for their county development plans, in the interests of proper planning and sustainable development.

Objective 7.37: Seek to minimize visual impacts on areas categorized within the Co. Roscommon Landscape Character Assessment including "moderate value", "high value", "very high value" and with special emphasis on areas classified as "exceptional value" and where deemed necessary, require the use of visual impact assessment where proposed development may have significant effect on such designated areas.

Objective 7.40 Seek to protect important views and prospects in the rural landscape and visual linkage between established landmarks, landscape features and views in urban areas.

6.4 Section 4 - Development Management Guidelines and Standards

6.4.1 Section 9.1.4 Noise

The Council will seek to ensure that new development does not cause an unacceptable increase in the noise and pollution levels affecting surrounding properties.

6.4.2 Section 9.1.4 Flood Risk Protection

New development will be required to take account of the guideline document produced by the of Environment, Heritage & Local Government (DEHLG) (now Department of Environment, Community & Local Government, (DECLG) and Office of Public Works: *The Planning System and Flood Risk Management (2009)*.

6.4.3 Section 9.5.2 Roadside boundaries

Where hedgerows or stone walls are removed to facilitate a new development (or upgrade an existing development) the replacement boundary treatment should endeavour to replicate the removed or disturbed boundary.

7 Assessment

Under the provisions of Section 177AE the Board is required to consider the following in respect of this type of application:

1. The proposed development's likely impact on the Environment
2. The proposed development's likely consequences for the proper planning and sustainable development of the area
3. The proposed development's likely impact on any European sites (i.e. Appropriate Assessment)

7.1 Proposed Development's Likely Impact on the Environment

In determining the proposed development's likely impact on the environment, consideration should be given to the Environmental Impact Assessment Screening Report (Document Ref - EIASR D3 - 2020.11.06 - 181209) and the Ecological Impact Assessment (Document Ref - EclA D2 - 2020.11.06-181209) produced by MKO Planning and Environmental Consultants.

7.1.1 Environmental Impact Assessment Screening Report

The EIASR found that the proposed Hartley Bridge Development would not require an Environmental Impact Assessment, as it is not listed in Part 1 or Part 2 of Schedule 5 of the Planning & Development Regulations 2001. Section 5.1 of the report deals with the consideration of likely significant impacts of the proposed development.

With regards to air and climate, MKO acknowledges that the proposed development may result in localised and temporary increases in dust levels and degradation of air quality during certain elements of the construction and/or demolition processes. MKO have outlined that these negative impacts will be short-term and insignificant due to the appropriate management and mitigation measures on site outlined in the CEMP.

It is anticipated that excess emissions will not be produced, with the exception of vehicles, generators, machines and plant associated with the proposed construction works. It is predicted that there will be no adverse impacts on the ambient air quality, due to the operational phase of the proposed development.

MKO state that "The conclusion of this screening report is that the proposed development is not likely to have significant effects on the environment".

7.1.2 Ecological Impact Assessment

An Ecological Impact Assessment (EclA) has been produced by MKO and provides a description of the proposed project, the requirement for an EclA and the methodology used in preparing the assessment.

In the assessment, the following Likely Zones of Impact are identified:

- Lough Drumharlow
- Lough Boderg and Lough Bofin
- Lough Forbes Complex SAC

A dedicated habitat survey of the area within and in the vicinity of the proposed development were undertaken on the 12th of February 2019 and again on the 21st of August 2020.

The status of the following habitats and species were assessed:

- Habitats: Depositing/lowland rivers, wet grassland, improved agricultural grassland, reed and large sedge swamp, scrub, hedgerows, treelines, wet willow-alder-ash woodland
- Species: fish, European eel, bat, otter, waterbirds and Greenland white-fronted geese,

In terms of the existing environment, Otter was not recorded along the riverbank. No spraints, holts or couches were recorded; however, it is noted that the river does provide suitable potential foraging and commuting habitat for the species. Evidence suggesting the presence of badgers was found in the form of snuffle holes in agricultural grassland on the western and eastern sides of the river. However, no setts or latrines were recorded.

Bat species were assessed on the basis of potential bat roost suitability in the following areas:

- Existing bridge structure - Negligible-low bat roosting potential
- Linear landscape features (hedgerows, treelines etc.) - Moderate-high bat roosting potential
- Trees within the proposed development footprint - Negligible-low bat roosting potential

Birds recorded include mallard, heron, rook, blackbird, magpie, wren, great crested grebe and curlew.

In relation to fish, an Aquatic Impact Assessment was carried out by Ecofact in July 2019, which recorded the following:

“There is no habitat for salmonid fish at this site. The River Shannon at this site is however a migration pathway for Brown Trout (and perhaps the occasional Atlantic salmon). There is potential nursery habitat for Brook Lampreys planeri at this site. However, none were recorded during the sweep net sampling (which included sampling silt). Lamprey ammocoetes are likely to present in low densities - but none were found during the current survey despite extensive searching. There is no spawning habitat for lampreys this site and anadromous lampreys are not able to access this part of the River Shannon catchment due to downstream fish passage issues. The margins of the river do provide ideal spawning and nursery areas for cyprinids, perch and pike. Juvenile Roach Rutilus rutilus and were recorded during the sweep net sampling at this site. According to IFI this is an angling stretch and contains Bream Abramis brama, Tench Tinca tinca, Rudd Scardinius erythrophthalmus, Perch Perca fluviatilis and Pike Esox Lucius. IFI have stated that “Hartley Bridge [] can be a very productive venue in May as the shoals of Roach migrate up river to spawn. There are also Bream to 3lbs, Hybrids and Rudd in the section”.

“Small numbers of the critically endangered European eel Anguilla are also likely to be present”

In section 6 of the EclA, the ecological impact of the proposed development is assessed with respect to the following:

1. A “Do Nothing Impact”
2. The impacts arising during construction
3. The impacts arising during the operational phase
4. Any biodiversity or ecological gains
5. The impacts incurred on any designated sites

Do Nothing Impact:

It is outlined that in the case whereby the proposed development was to not proceed, it is likely that the development site would remain under its current management routine.

Impacts During Construction:

Ecological impacts on a number of habitats and species are discussed, with proposed mitigation measures outlined. Following this, the residual effect following implementation of the mitigation measures is assessed, as is the potential for any cumulative effect.

In the case of Treeline and Hedgerow, an unmitigated effect relating to the loss of 260m of treeline and 230m of hedgerow is identified as a permanent negative effect, which is not significant at a county, national or international scale. Following implementation of the mitigation measures (planting of c. 490m of native tree and shrub species along the new sections of road), it is determined that there will be no significant residual effect on treeline or hedgerow habitat. It is also noted that due to the non-loss of treeline or hedgerow, it cannot contribute to any cumulative effect.

In the case of Riverbed and Reed Habitat, unmitigated effects of excess habitat loss and surface water pollution are identified. - The loss in area of reed and riverbed habitat is deemed to be minimal in scale. However, a possible indirect effect on aquatic habitats at a local geographic scale, in relation to pollution arising throughout the construction stage. The mitigation measures relating to the Riverbed and Reed Habitat are as follows:

1. Provision of silt fencing to filter any potential surface water run off generated by the proposed works
2. Provision of temporary fencing to ensure that the proposed works are adequately segregated.
3. Designated and clearly identified construction access routes
4. Creation of a dry working area to prevent potential sedimentation of the watercourse
5. Machinery shall work from the riverbank or from a barge in order to protect the riverbed.
6. Best practice, with regard to pollution prevention, is to be adopted and adhered to.
7. The works shall be monitored by an ECoW and a designated site Environmental Officer

It is noted that by implementing the above measures, there will be no significant residual effect on riverbed or reed habitat or pollution of the watercourse at any geographic scale as a result of the proposed development. As a result, it cannot contribute to any cumulative effect.

In the case of aquatic fauna, unmitigated effects relating to habitat loss and deterioration are identified. In addition, disturbance to aquatic fauna is also noted. The area of reed and riverbed to be lost is considered to be minimal in scale, although there is potential for indirect habitat loss. This loss is anticipated to have a slight effect on the wider context of the River Shannon. Disturbance to fauna and pollution of surface waters will have a slight effect.

The mitigation measures relating to aquatic fauna are as follows:

1. Provision of silt fencing to filter any potential surface water run off generated by the proposed works
2. Provision of temporary fencing to ensure that the proposed works are adequately segregated.
3. Designated and clearly identified construction access routes
4. A pre-commencement otter survey shall be undertaken to ensure no otter holts occur within 150m of the proposed development. Should this be the case, a derogation license shall be obtained from NPWS prior to commencement of works
5. Creation of a dry working area to prevent potential sedimentation of the watercourse
6. Machinery shall work from the riverbank or from a barge in order to protect the riverbed.
7. Best practice, with regard to pollution prevention, is to be adopted and adhered to.
8. The works shall be monitored by an Ecological Clerk of Works and a designated site Environmental Officer

By implementing the above mitigation measures, it is determined that there will be no significant residual effect on fish, eel, otter or waterbirds at any geographic scale as a result of the proposed development. Hence, the proposed development cannot contribute to any cumulative effect.

In relation to mitigation measures and best practice, reference is made to the accompanying CEMP.

Impacts During the Operational Phase:

As there will be no change in usage of the new bridge in comparison with the existing bridge, no impacts associated with the operational phase of the proposed development are anticipated.

Assessment of any Biodiversity or Ecological Gains:

In assessing any biodiversity or ecological gains, it is noted that there will be no net loss in tree and shrub habitat.

Impacts on Designated Sites:

The impacts on European Sites is discussed in detail in Section 7.3 of this Summary Planning Report.

Impacts on nationally designated sites, such as NHAs and pNHAs are assessed. It is proposed that as the Lough Forbes pNHA's boundary is concurrent with Lough Forbes Complex SAC, the same mitigation measures shall be employed. In cases whereby Nationally designated sites are not also designated as European Sites, a full ecological impact is provided.

The proposed Hartley Bridge development is located within Lough Drumharlow pNHA, which is subject to direct impacts in the form of habitat loss and indirect impacts in the form of disturbance and surface water pollution due to the proposed development. As a result, there will be some minor loss of Local Importance wet grassland habitat. Due to the size and scale, the direct effects are considered to be negligible and are not anticipated to have a significant effect on the pNHA. It is noted that the site is considered abandoned.

Due to the preventative measures previously mentioned in this report and outlined in detail in the CEMP, it is found that the indirect impacts in the form of disturbance and surface water pollution are not anticipated to be significant. This is the same case for the effects in terms of surface water pollution on other pNHAs located downstream of the development (Lough Boderg and Lough Bofin).

It is concluded that no direct or indirect pathway for affecting any additional sites was recorded.

Cumulative Impact Assessment:

Other plans and projects which may have the potential to result in cumulative impacts on the ecology of the site were researched and reviewed. However, no connection that could possibly result in additional or cumulative impacts was identified. Similarly, there was no potential for new impacts resulting from the combination of different projects or plans in association with the proposed development.

The EclA produced by MKO presents the following concluding statement:

“Following consideration of the residual effects (post incorporation of best practice measures) it is concluded that the proposed development will not result in any significant effects on the flora, fauna and biodiversity of the existing environment.

Provided that the proposed development is constructed and operated in accordance with the design and best practice that is described within this application, significant effects on biodiversity are not anticipated at any geographical scale.”

7.2 Proposed Development's Likely Consequences for the Proper Planning and Sustainable Development of the Area

The existing bridge provides a vehicular link across the River Shannon, from County Leitrim to County Roscommon. Although a traffic survey has not been conducted, the rural area surrounding the bridge would indicate that a low volume of traffic would typically be observed.

As previously indicated a 2016 structural assessment of the bridge found that it was unfit for purpose, and hence, vehicular weight and height restrictions were put in place. As a result, the bridge is currently subject to quarterly monitoring inspections, which are incurring a cost to Leitrim County Council.

It is anticipated that the proposed replacement of Hartley bridge would address the current vehicle weight & height restrictions, i.e. improve vehicular access, and would not give rise to any adverse impacts on the surrounding area. As previously outlined, the proposed development has been designed in keeping with the policies and objectives of the Leitrim County Development Plan 2015-2021 and the National and EU legislation relating to the surrounding ecology and environment.

7.3 Proposed Development's Likely Impact on any European Sites

As outlined in the previous section, MKO Planning and Environmental Consultants have produced an Appropriate Assessment Screening Report (Document Ref - AASR D2 - 2020.11.06 - 181209) and a Natura Impact Statement (Document Ref - NIS-D2-2020.11.06 - 181209)

Appropriate Assessment Screening Report:

In this screening report, the proposed development and an indicative construction/demolition sequence is described. A description of an existing or "baseline" ecological environment is also provided. Following this, the Lough Forbes Complex SAC (001818) was identified as a European Site, onto which the proposed development would potentially have a significant effect.

As a result of the identification of the Lough Forbes Complex Sac (001818), MKO indicate that a Stage 2 Appropriate Assessment and hence, a Natura Impact Statement are required for the proposed development.

Natura Impact Statement:

MKO have prepared a Natura Impact Statement (Document ref - NIS D2 - 2020.11.06 - 181209) proposed development. In this document, all elements of the proposed development are fully described as is the baseline environment. An assessment of the potential for adverse effects on the identified European Sites is carried out, including the discussion of possible mitigation measures. The residual effects, taking into account the prescribed mitigation measures are then assessed. Finally, the potential for a combination of effects with respect to a combination of other plans and projects and a concluding statement is provided.

It is noted that there is a potential pathway for indirect effects on the aquatic/surface water dependant Qualifying Interests of the 'Screened in' European Designated Site Lough Forbes Complex, which are identified as follows:

1. Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation [3150]
2. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]

The potential indirect effects are identified as the deterioration of water quality associated with the discharge of surface water runoff from the proposed works.

The mitigation measures are discussed with specific reference to the previously mentioned Construction and Environmental Management Plan.

A residual impact assessment on each of the previously mentioned Qualifying Interests in undertaken.

The conservation objective for Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation [3150] is noted as being:

"To restore the favourable conservation condition of Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation in Lough Forbes Complex SAC"

The indirect pathways which would result in impacts to occur to this Qualifying Interest were considered in the design of the proposed development and suitable mitigation measures are outlined in the CEMP to avoid all water pollution.

The conservation objective for Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0] is noted as being:

"To restore the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) in Lough Forbes Complex SAC."

Similarly to the previous QI, the indirect pathways which would result in impacts to occur to this Qualifying Interest were considered in the design of the proposed development and suitable mitigation measures are outlined in the CEMP to avoid all water pollution.

In summary, it is stated that:

“it is concluded in view of best scientific knowledge, beyond reasonable scientific doubt on the basis of objective information that the proposed replacement of the Hartley Bridge, will have no negative impacts on the surface water dependent Qualifying Interests associated with Lough Forbes Complex SAC.”

A cumulative assessment was also carried out, however no residual cumulative impacts were identified with regard to any European Site.

The concluding statement reiterates that:

“it can be objectively concluded that the proposed replacement of Hartley Bridge and associated road realignment works individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site”

7.4 Appropriate Assessment of Implications of the Proposed Development

The development site is located c. 38km from the Lough Forbes Complex SAC [001818], which is of significant ecological importance and hosts a range of species and habitats.

Detailed site-specific conservation objectives have been published for the site, with the overall objective being to maintain or restore the favourable conservation condition of the Annex I habitats(s) and the Annex II species for which the SAC is selected.

The site is an SAC for the following qualifying interests:

- Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]

The NPWS site synopsis describe the Lough Forbes Complex as consisting of a number of different habitats, and is centred around Lough Forbes, a lake formed by a broadening of the River Shannon. There is a series of raised bogs, callow grasslands and a variety of other aquatic and terrestrial habitats to the west of Newtown Forbes on the Longford/Roscommon boundary. The NPWS also indicates that the Lough Forbes site’s importance lies in its excellent diversity of habitats.

The conservation objective relating to both the Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150] and the Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) is to restore the favourable conservation condition associated with both of these habitats.

According to the NPWS the threats and pressures to the site and current damaging activities include groundwater abstractions for public water supply, abandonment of pastoral systems, leisure fishing, abandonment/lack of mowing, invasive non-native species, hunting and diffuse groundwater pollution due to agricultural and forestry activities.

The Natura Impact Statement, having taken the above into account, concludes that the proposed development will not either individually, or in combination with other developments, adversely affect the integrity of any European Site.

8 Conclusion

This summary report has identified and outlined the requirements and standards, which are anticipated to be of relevance to the proposed Hartley Bridge development. The identified requirements & standards include domestic and European legislation and guidelines in addition to Leitrim County Development Plan standards, objectives and policies.

Following a review of the requirements and guidelines described in the paragraph above, project specific investigations were undertaken to determine the likely impacts, with respect to the aforementioned requirements, that would arise as a result of the proposed development. These investigations were carried out by third parties and the methodologies, results and conclusions of each investigation was captured in the form of an individual report.

An “Appropriate Assessment Screening Report” was produced by MKO with the aim of determining the requirement for a comprehensive Appropriate Assessment. In the concluding remarks, it was noted that an Appropriate Assessment would indeed be required.

As a result of the findings of the Appropriate Assessment Screening Report, an investigation relating to a Natura Impact Statement was undertaken by MKO and found that the proposed replacement of Hartley Bridge and associated road realignment works individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site.

MKO’s Ecological Impact Assessment found that the proposed development will not result in any significant effects on the flora, fauna and biodiversity of the existing environment. Furthermore, significant effects on biodiversity at any geographical scale, are not anticipated, provided that the proposed development is constructed and operated in accordance with the design and best practice that is described within this planning application.

The Environmental Impact Assessment Screening Report produced by MKO found that the proposed development is not a project for which an EIA is mandatory under either European Union or Irish law. It was also noted that the proposed development is not a sub-threshold development that requires an EIA. In this regard, the proposed development was assessed against the relevant criteria and is considered unlikely to have significant effects on the environment.

A Construction and Environmental Management Plan was created in order to assist the Natura Impact Statement, the Ecological Impact Assessment and the Environmental Impact Assessment Screening Report, through the provision of appropriate mitigation measures. The measures and best practice guidelines outlined in the CEMP were taken into consideration in the findings of the third-party reports.

Giving consideration to the proposed project’s compliance with Irish and EU legislation, the Leitrim County Development Plan 2015 - 2021 and the findings of the conducted Appropriate Assessment and auxiliary reports, it is our opinion that the project is feasible, and should be granted planning.

Appendix A Waterways Ireland Engagement

Mr John Roche
Punch Consulting,
Carnegie House,
Library Road
Dun Laoghaire
Co. Dublin A96 C7W7

Date: 21/09/2020

Proposed Development: 182164 Hartley Bridge, Co Leitrim.

Dear John,

We refer to your correspondence received regarding the above pre-notice prior to Planning Permission. Waterways Ireland welcomes the replacement of Hartley Bridge and agreement to remove the old bridge deck. Waterways Ireland encourage appropriate development and use of navigable water for leisure purposes.

In providing for the correct and proper development of the Shannon Navigation we submit the following observations in respect of the submission:

1. Air Draft

Proposed new bridge air draft of 5.069 metres The air draft appears in order however height levels and Ordinary Summer Levels need to be stated on design drawings and such information need be verified and agreed with Waterways Ireland.

Waterways Ireland uses Poolbeg datum for assessment of water levels as per the attached appendix. These levels are called Ordinary Summer Level. The drawings provided by Punch refer to mOD levels. There should be clear consistency of datums to ensure that in cross referencing the same datum language is correct and appropriate for design and construction reference.

The final design and construction requires air draft gauges to be affixed on the upstream and downstream approaches to the bridge.

2. Realignment proposed for Navigation channel and Draft (depth)

The navigation channel is being moved westwards. The drawing shows the future navigation channel under the central span of the proposed bridge highlighted in yellow. The drawing shows the existing navigation channel under Span 2 and central Span 3 (reading Right to Left) of the existing bridge highlighted in orange. The new navigation channel will encompass Spans 2, 3 and 4 of the existing bridge. The location of the pillars and the new navigation channel is critical as it would appear that there will be a shift in channel location.

Bye Law 8 of the Shannon Navigation Bye Laws state that “*A vessel having a draft of more than 1.25 metres shall not navigate in the Ballinamore and Ballyconnell navigation (within the meaning of section 5 of the Act), and a vessel*

having a draft of more than 1.7 metres shall not navigate in the remainder of the navigation, without the consent of the Commissioners”. Therefore Waterways Ireland requires 1.7 metres water depth on the Shannon Navigation.

There is a water depth issue with moving the navigation channel into shallower water on the western side of the river. The Western side of the proposed new navigation channel is shallow (Span 4). This is a serious issue for safety of navigation for deeper draft vessels. A full Hydrographic survey is required to a relative datum to confirm a safe navigation channel.

Approximate unconfirmed indications are that the water depth may reduce significantly locally and if not addressed the shallower depths arising on related navigation channels would lead to groundings of deeper draft vessels.

Dredging the river bed and / or installation of navigation piles / buoys will be required.

Completion of a hydrographic survey of the river bed both upstream and downstream of the bridge to a distance from all bridge pillars of 100 metres at a minimum will inform design and confirm correct and safe navigation realignment. If any obstructions shallower than 1.7m are observed to be present during the survey, the survey then should be extended to the end of the feature to demonstrate and verify proposed realignment through the bridge pillars.

The survey will determine extent of any dredging of the river bed down to a depth of 1.7 metres for navigation requirement on the approaches both upstream and downstream of both bridge pillars. This is particularly important towards span 4 on the Western side.

The realignment design requires marking by the placement of new navigation pile(s) / navigation buoy(s) markings on the upstream and downstream approaches to the bridge to guide vessels through the deeper water. A green marker (downstream side) & red marker (upstream side) should be fixed onto each side of the bridge to mark the edge and extent of the navigation channel available when passing under the new bridge and when navigating through the old bridge pillars.

3. Key requirements and considerations from a safety of navigation perspective

- Marine Notice to be issued in advance by Waterways Ireland closing the navigation formally.
- The summer months witness significant boat traffic so any closure will cause issues for hire boat companies. In the winter months there is less boat traffic however water flow will be much stronger.
- Dates for closure of the navigation should be signalled well in advance.
- Safety boats will be required upstream and downstream of the works.
- The barge and temporary installations should be lit to ensure that it can be seen during darkness / reduced visibility.
- Consistency with Water Level datum's referenced for clarity

4. Existing Bridge Pillars

Waterways Ireland confirm that navigation hazard is being created with the new information that the old bridge pillars are not being removed but will be retained above water level as towers in the channel. The combined effect of the new bridge arches alignment together with the old bridge pillars retained potentially creates confusion for boat users navigating both bridge pillars. Strike with the structures could arise. The non-removal of the old bridge pillars will cause issues for the navigation channel as outlined below.

The non-removal of the old bridge pillars will cause issues for the navigation channel because the new bridge pillar on the Eastern side encroaches on the navigation line for north bound vessels for span 2. In effect vessels going upstream will have to negotiate a chicane type course, this situation is not ideal for inexperienced boat users.

Until now, Span 2 has been used for north bound vessels while span 3 has been used for south bound vessels (Reading right to left).

The drawing shows the future navigation channel under the central span of the proposed bridge highlighted in yellow. The drawing shows the existing navigation channel under Span 2 and central Span 3 (reading Right to Left) of the existing bridge highlighted in orange. The new navigation channel will encompass Spans 2, 3 and 4 of the existing bridge.

One option is to make span 3 of the old bridge the main navigation channel for both north bound and south bound vessels. There would need to be clear signage indicating this information to boaters. The old bridge pillars would need to be clearly marked to indicate the navigation channel. South bound vessels (going down stream) would have priority over north bound (going upstream vessels).

5. Ongoing Maintenance

Waterways Ireland require confirmation that the bridge design and new navigation alignment will not require any ongoing maintenance to provide navigation in future. Such as any periodic dredging introduced because of natural siltation in this new bridge location and amended Navigation alignment. No regular maintenance is currently required along this stretch of river. Existing and future resource will not permit the taking on any resultant impacts and costs arising from the works.

6. Method statement detail to cover all works should include:

- Confirmation of principle contractor (once appointed) along with guarantee of relevant insurance and liability cover to complete the works.
- Stages of demolition and construction to completion and anticipated programme.
- Any periods of navigation closure envisaged. It is understood that closure of the Shannon Navigation is proposed for demolition of the old bridge deck, however other construction activities are not covered in the methodology.
- Time of year for works completion avoiding boating season from March to October with peak season during May to August.
- The number of arches open for navigation at each stage of the works and forewarning / management of boats as construction progresses
- Any works boats movement in channels and supporting boats and on water safety management
- Demolition waste destination and location for any temporary docking and depth arrangement to offload and method at this point
- Removal of any temporary steelwork driven piles, and system to ensure and prevent any sub marine hazards on completion. Post surveying to check removal of any fallen/debris recovery system prior to opening any stage of navigation for safe passage
- Proposed temporary and permanent relocation for existing overhead and underground services present
- Confirmation that temporary works will not affect or impede water flow & raise seasonal water levels upstream abnormally
- Maintaining water depth free from hazard throughout works and checks of area

- prior to any boat passage permitted through the area following each spans removal.
- Bio-security measures
 - Spill response
 - Other stakeholder engagement and requirement, such as consultation with IFI

The observations above are drawn from the overview drawing and demolition method information submitted in August/September 2020. Further updates, changes and amendments to design and construction plans going forward must be submitted to Waterways Ireland for further observation and comment.

Yours sincerely,

B Treacy
Brian Treacy
Senior Engineer Operations
Carrick-on-Shannon

Meeting Minutes

Project Title	Hartley Bridge - Waterways Ireland	Minutes by	Paul Casey
Project No	182164	CMS ref	-----
Held at	Microsoft Teams Virtual Meeting	On date	30 th August 2021

Attendance

Paul Casey (PC)	PUNCH
Brian Treacy (BT)	Waterways Ireland
Jane Walsh (JW)	Waterways Ireland
Patrick Harkin (PH)	Waterways Ireland

Meeting Context


The purpose of the meeting is to discuss proposals for the demolition of the existing Hartley Bridge structure and the construction of a new replacement bridge over the River Shannon. This engagement follows previous consultations with Waterways Ireland and seeks to close out issues to Waterway Ireland's satisfaction to allow lodgement of a planning submission (under Section 177AE) to An Bord Pleanála.

Minutes and Actions

No.	Item	Action by
1.	<p>Introduction</p> <p>PC opened the meeting with a welcome to all.</p> <p>Following request by Waterways Ireland, PC provided a brief description of the project to provide context and progress to date.</p>	Note
2.	<p>River Traffic Management</p> <p>Waterways Ireland queried the implications on the movement of watercraft on the River Shannon as a result of the proposed works.</p> <p>It was confirmed by PC that due to Fisheries Season restrictions applicable to the site (Special Area of Conservation status) that any instream works including demolition works will have to be undertaken between the months of June and September. Unfortunately and unavoidably this coincides with peak boating season.</p> <p>As a result, Waterways Ireland have requested further details on the Works proposals and how they will seek to minimise adverse impacts on watercraft movements. This may take the form of temporary partial closures or full closures for limited periods of time to help alleviate adverse impacts on the river traffic.</p> <p>PC suggested that additional details can be added to the planning reports to reflect outline traffic management proposals. This would also be accompanied by a new drawing reflecting the demolition /construction sequence to relate to traffic management proposals for each stage.</p> <p>PC also noted that further liaison with Waterways Ireland would be required post-planning grant to ensure that the methodologies and traffic management proposals are agreed in</p>	PC

No.	Item	Action by
	detail well in advance of commencement to ensure any potential dates/times of closure of the navigation is signalled well in advance.	Note
3.	<p>Existing Bridge Piers</p> <p>Waterways stated their preference for removal of all existing piers as part of the demolition of the existing Hartley Bridge structure. If old pillars are not removed then they would represent a navigation hazard, particularly to inexperienced boat operators renting boats on the River Shannon.</p> <p>Other reasons for preferred removal of the old piers were also highlighted as follows:</p> <ol style="list-style-type: none"> 1) Improve visual amenity. Removal of the piers would improve the visual impact of the proposed works. 2) Removal of the existing bridge piers would allow further dredging with a resulting wider navigation channel extending between the proposed new bridge piers. The absence of piers would also improve the issue of sediment building, thus reducing the associated on-going maintenance on the river. <p>PC noted the preference for the pier removal and additional dredging extents. The cost and environmental implications will need to be discussed with Leitrim County Council and MKO. This will be considered and, if possible, reflected in the planning proposals.</p>	<p>Note</p> <p>PC</p>
4.	<p>Navigation Channel</p> <p>As per Item 3 above, Waterways Ireland indicated their preference for a wider navigation channel to be accommodated under the proposed new Hartley Bridge. Currently the existing Hartley Bridge is navigated via Spans 4 and 5. Rather than maintaining this navigation strip, i.e. partial navigation of the clear span between new bridge piers, Waterways Ireland preference is for removal of the existing bridge piers and dredging of the river to achieve 1.7m depth draft across the width of the channel. This will improve navigation on the river and eliminate/reduce the need for in-stream markers/buoys, etc. and also result in safer passage for boat users.</p> <p>PC noted the preference for the pier removal and additional dredging extents. The cost and environmental implications will need to be discussed with Leitrim County Council and MKO. This will be considered and, if possible, reflected in the planning proposals.</p>	<p>Note</p> <p>PC</p>
5.	<p>Required Draft and Dredging</p> <p>Bathymetric survey shown to Waterways Ireland. Extents and details accepted. Waterways Ireland have requested that a post-works Bathymetric Survey will be required to act as as-built information for the riverbed topography, and to illustrate that the required drafts (1.7m) are achieved. A note will be added to the planning drawings to reflect this survey requirement.</p> <p>He quantum of additional dredging will be assessed and confirmed by PNHC Consulting Engineers to inform further discussion with MKO and Leitrim Co Co on the environmental and cost implications.</p>	<p>PC</p> <p>PC</p>
6.	<p>Waste Removal</p> <p>Waterways Ireland queried the arrangements for waste removal associated with the demolition and dredging works.</p>	Note

No.	Item	Action by
	<p>Preference would be to locally extract the waste arisings locally rather than removing via barge due to associated river traffic generation, delays and costs.</p> <p>PUNCH to liaise with MKO to provide further detail on the waste management in the planning documentation.</p>	PC
7.	<p>Drawing Comments</p> <ul style="list-style-type: none"> a. Add note to drawings regarding requirement for air draft gauges to be affixed on the upstream and downstream approaches to the bridge. b. Additional dimensions to be applied to navigation channels (existing and proposed). c. Sequence Drawing illustrating the outline watercraft traffic management proposals to be prepared. 	PC
8.	<p>Circulation All attendees</p>	Note

Signed by		Date	03/09/2021
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