

Noreen McLoughlin, MSc

Environmental Consultant

Whitehill
Edgeworthstown
Co. Longford
☎ (087) 4127248 / (043) 6672775
✉ noreen.mcloughlin@gmail.com

STATEMENT OF SCREENING FOR APPROPRIATE ASSESSMENT OF A PROPOSED DEVELOPMENT IN KILLYKEEN FOREST PARK, KILLYKEEN, CO. CAVAN

IN LINE WITH THE REQUIREMENTS OF ARTICLE 6(3) OF THE
EU HABITATS DIRECTIVE



*c/o Cavan County Council
Courthouse
Farnham St
Cavan*

*November 2020
Updated February 2022*

TABLE OF CONTENTS

1	INTRODUCTION	3
1.1	Background	3
1.2	Regulatory Context	3
2	METHODOLOGY	7
2.1	Appropriate Assessment	7
2.2	Statement of Competency	9
2.3	Desk Studies & Consultation	9
2.1	Field Based Studies	9
2.4	Assessment Methodology	9
3	SCREENING	11
3.1	Development Description	11
3.2	Site Location and Surrounding Environment	13
3.3	Natura 2000 Sites Identified	17
3.4	Natural Heritage Areas	28
3.5	Impact Assessment	29
3.6	Finding of No Significant Effects	31
4	APPROPRIATE ASSESSMENT CONCLUSION	32
APPENDIX I:	PHOTOGRAPHS	33

1 INTRODUCTION

1.1 BACKGROUND

Article 6 of the EU Habitat's Directive (Council Directive 92/43/EEC) requires that all plans and projects be screened for potential impacts upon Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). The aim of this screening process is to establish whether or not a full Appropriate Assessment of the proposed plan or project is necessary.

A comprehensive assessment of the potential effects of a small project in Killykeen Forest Park on certain designated Natura 2000 sites was carried out in November 2020 by Noreen McLoughlin, MSc, MCIEEM of Whitehill Environmental. This assessment allowed areas of potential ecological value and potential ecological constraints associated with this proposed development to be identified and it also enabled any potential ecological impacts associated with the proposed development to be assessed.

The location of the proposed development is within 15km of sites designated under European Law. As such and in accordance with Article 6(3) of the EU Habitat's Directive (Council Directive 92/43/EEC) regarding Appropriate Assessment, this screening exercise for Appropriate Assessment was carried out in order to identify whether any significant impacts on designated sites are likely. This exercise will also determine the appropriateness of the proposed project, in the context of the conservation status of the designated sites.

1.2 REGULATORY CONTEXT

RELEVANT LEGISLATION

The Birds Directive (Council Directive 2009/147/EC) recognises that certain species of birds should be subject to special conservation measures concerning their habitats. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive. SPAs are selected for bird species (listed in Annex I of the Birds Directive), that are regularly occurring populations of migratory bird species and the SPA areas are of international importance for these migratory birds.

The EU Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.

Articles 6(3) and 6(4) of this Directive also call for the undertaking of an Appropriate Assessment for plans and projects not directly connected with or necessary to the

management of, but which are likely to have a significant effect on any European designated sites (i.e. SACs and SPAs).

The Water Framework Directive (WFD) (2000/60/EC), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003). The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2021 and that status does not deteriorate in any waters.

Appropriate Assessment and the Habitats Directive

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the ‘Habitats Directive’ - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as *Natura 2000*. *Natura 2000* sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for plans or projects affecting *Natura 2000* sites. Article 6(3) establishes the requirement for Appropriate Assessment:

“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. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6(4) deals with the steps that should be taken when it is determined, as a result of appropriate assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

The Appropriate Assessment Process

The aim of Appropriate Assessment is to assess the implications of a proposal in respect of a designated site's conservation objectives.

The 'Appropriate Assessment' itself is an assessment which must be carried out by the competent authority which confirms whether the plan or project in combination with other plans and projects will have an adverse impact on the integrity of a European site.

Screening for Appropriate Assessment shall be carried out by the competent authority as set out in Section 177U(1) and (2) of the Planning and Development Act 2000 (as amended) as follows:

(1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

(2) A competent authority shall carry out a screening for appropriate assessment under subsection (1) before—

(a) a Land use plan is made including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

(b) consent for a proposed development is given.'

The competent authority shall determine that an Appropriate Assessment is not required if it can be excluded, that the proposed development, individually or in combination with other plans or project will have a significant effect on a European site.

Where the competent authority cannot exclude the potential for a significant effect on a European site, an Appropriate Assessment shall be deemed required.

Where an Appropriate Assessment is required, the conclusions of the Appropriate Assessment Report (Natura Impact Statement (NIS)) should enable the competent authority to ascertain whether the plan or proposed development would adversely affect the integrity of the European site. If adverse impacts on the integrity of a European site cannot be avoided, then mitigation measures should be applied during the appropriate assessment process to the point where no adverse impacts on the site remain. Under the terms of the Habitats Directive consent can only be granted for a project if, as a result of the appropriate assessment either (a) it is concluded that the integrity of any European sites will not be adversely affected, or (b) after mitigation, where adverse impacts cannot be excluded, there is shown to be an absence of alternative solutions, and there exists imperative reasons of overriding public interest for the project should go ahead.

Section 177(V) of the Planning and Development Act 2000 (as amended) outlines that the competent authority shall carry out the Appropriate Assessment, taking into account the Natura Impact Statement (amongst any other additional or supplemental information). A determination shall then be made by the competent authority in line with the requirements of Article 6(3) of the Habitats Directive as to whether the plan or proposed development would adversely affect the integrity of a European site, prior to consent being given.

2 METHODOLOGY

2.1 APPROPRIATE ASSESSMENT

This Statement of Screening for Appropriate Assessment (Stage 1) has been prepared with reference to the following:

- European Commission (2000). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
- European Commission (2002). Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.
- European Commission (2006). Nature and Biodiversity Cases: Ruling of the European Court of Justice.
- European Commission (2007). Clarification of the Concepts of: Alternative Solution, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.
- Department of Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.

The EC Guidance sets out a number of principles as to how to approach decision making during the process. The primary one is 'the precautionary principle' which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty.

When considering the precautionary principle, the emphasis for assessment should be on objectively demonstrating with supporting evidence that:

- There will be no significant effects on a Natura 2000 site;
- There will be no adverse effects on the integrity of a Natura 2000 site;
- There is an absence of alternatives to the project or plan that is likely to have an adverse effect to the integrity of a Natura 2000 site; and
- There are compensation measures that maintain or enhance the overall coherence of Natura 2000.

This translates into a four stage process to assess the impacts, on a designated site or species, of a policy or proposal.

The EC Guidance states that “each stage determines whether a further stage in the process is required”. Consequently, the Council may not need to proceed through all four stages in undertaking the Appropriate Assessment.

The four-stage process is:

Stage 1: Screening – The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether or not these impacts are likely to be significant;

Stage 2: Appropriate Assessment – The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site’s structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts;

Stage 3: Assessment of Alternative Solutions – The process which examines alternative ways of achieving objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site;

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain – An assessment of the compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

In complying with the obligations set out in Articles 6(3) and following the guidelines described above, this screening statement has been structured as a stage by stage approach as follows:

- Description of the proposed project;
- Identification of the Natura 2000 sites close to the proposed development;
- Identification and description of any individual and cumulative impacts on the Natura 2000 sites likely to result from the project;
- Assessment of the significance of the impacts identified above on site integrity. Exclusion of sites where it can be objectively concluded that there will be no significant effects;
- Description of proven mitigation measures.

2.2 STATEMENT OF COMPETENCY

This AA Screening report was carried out by Noreen McLoughlin, BA, MSc, MCIEEM. Noreen has an honours degree in Zoology and an MSc in Freshwater Ecology from Trinity College, Dublin and she has been a full member of the Chartered Institute of Ecology and Environmental Management for over thirteen years. Noreen has over 15 years' experience as a professional ecologist in Ireland.

2.3 DESK STUDIES & CONSULTATION

Information on the site and the area of the proposed development was studied prior to the completion of this statement. The following data sources were accessed in order to complete a thorough examination of potential impacts:

- National Parks and Wildlife Service - Aerial photographs and maps of designated sites, information on habitats and species within these sites and information on protected plant or animal species, conservation objectives, site synopses and standard data forms for relevant designated sites.
- Environmental Protection Agency (EPA)- Information pertaining to water quality, geology and licensed facilities within the area;
- Myplan.ie – Mapped based information;
- National Biodiversity Data Centre (NBDC) – Information pertaining to protected plant and animal species within the study area;
- Bing maps & Google Street View – High quality aerials and street images;
- Craft Studio Architects and Cavan County Council – Plans and information pertaining to the Development.

2.1 FIELD BASED STUDIES

The area of the proposed development was visited on November 5th2020. Notes on the habitats present close to the proposed works and photographs were taken.

2.4 ASSESSMENT METHODOLOGY

The proposed development was assessed to identify its potential ecological impacts and from this, the Zone of Influence (Zoi) of the proposed development was defined. Based on the potential impacts and their Zoi, the Natura 2000 sites potentially at risk from direct, indirect or in-combination impacts were identified. The assessment considered all potential impact sources and pathways connecting the proposed development to Natura 2000 sites, in view of the conservation objectives supporting the favourable conservation condition of the site's Qualifying Interests (QIs) or Special Conservation Interests (SCIs).

The conservation objectives relating to each Natura 2000 site and its QIs/SCIs are cited generally for SACs as “to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or Annex II species for which the SAC has been selected”, and for SPAs “to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA”.

As defined in the Habitat’s Directive, the favourable conservation status of a habitat is achieved when:

- Its natural range and area it covers within that range is stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future;

The favourable conservation status of a species is achieved when:

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

Where site-specific conservation objectives (SSCOs) have been prepared for a European site, these include a series of specific attributes and targets against which effects on conservation condition, or integrity, can be measured. Where potential significant effects are identified, then these SSCO should be considered in detail.

3 SCREENING

3.1 DEVELOPMENT DESCRIPTION

Killykeen Forest Park is currently managed by Coillte Teoranta. It is a large forest park, with a large number of mapped walks and trails. One of the trails crosses over Lough Oughter at Gartnanoul Point. Access is provided over the lake here by a timber footbridge.

This footbridge is 1100mm wide at present. This has presented some challenges, especially when considered since 2020 where social distancing is required to slow the spread of Covid-19. It is not possible to pass another person on the bridge and stay beyond 1m of them.

It is now proposed to take up the existing timber and handrails on the footbridge and replace them with a wider timber bridge and handrails. When the bridge was constructed initially, the supporting steel structure allowed for a timber bridge of 3.3m. However, the narrow timber bridge was installed to prevent vehicular traffic crossing it. Although it is proposed to make the bridge wider for pedestrian and bicycle traffic, vehicles will not be able to cross it.

The proposed new bridge will utilize the existing support structures in place, therefore limiting the need for instream works. This will involve installing two beams to the outer most extent of the support structures in-situ spanning from one bank to the other. The bridge itself will be constructed in prefabricated steel modules off-site, and then lifted into place and bolted to this structure. The only in-stream works proposed would be the painting on the existing steel structures, obviously with an environmentally appropriate product, given the sensitivities. This will be done when water levels are at their lowest.

Extracts from the drawings for the proposed development is shown in Figure 1.

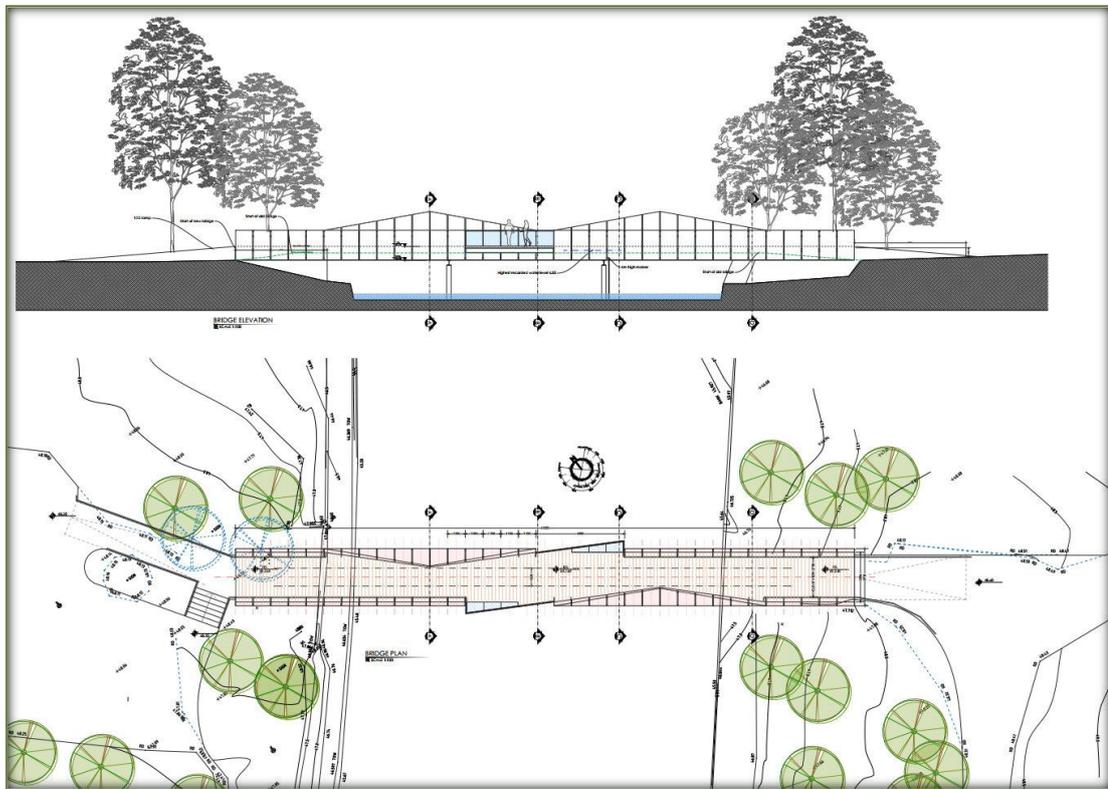


Figure 1a – Extract from Planning Drawing (Craft Studio Architects)

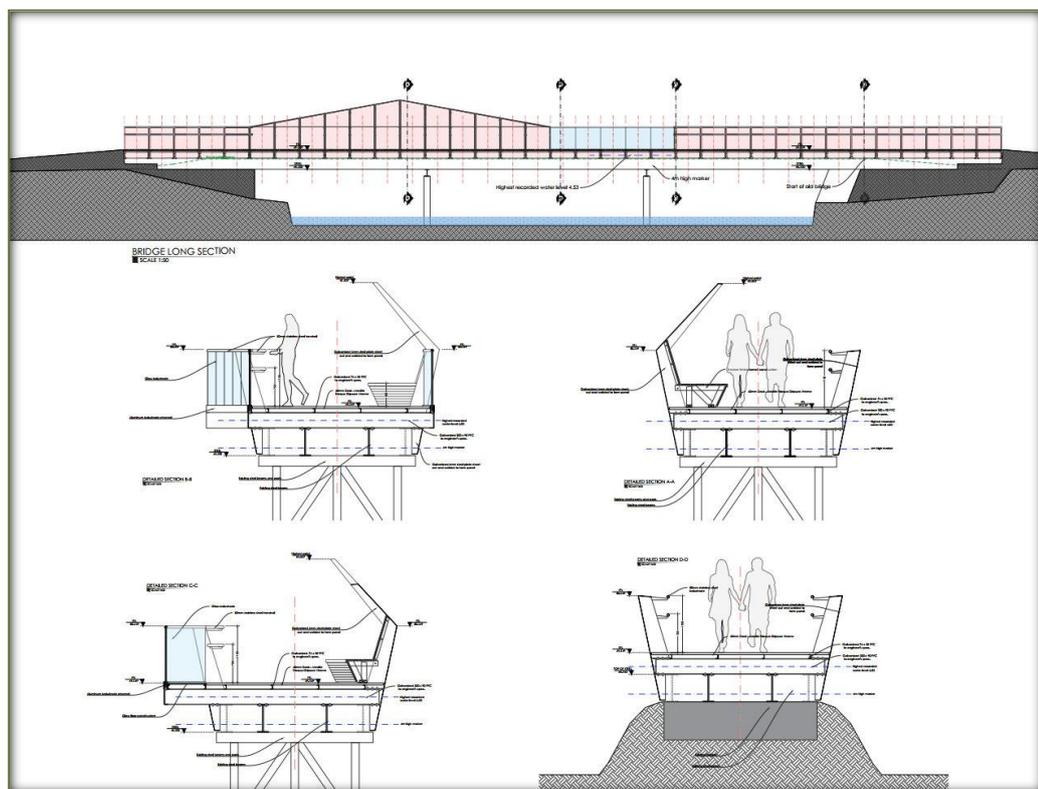


Figure 1b – Extract from Planning Drawing (Craft Studio Architects)

3.2 SITE LOCATION AND SURROUNDING ENVIRONMENT

The proposed works on the bridge will take place in Killykeen Forest Park, where it crosses a narrow point of Lough Oughter between Derinsh Beg and Gortnanoul at Gortnanoul Point. The bridge is approximately 29m long. The bridge is approximately 3.7km east of Killeshandra and 7.3km north-west of Cavan town.

Site location maps are shown in Figures 2 and 3, whilst an aerial photograph of the site is provided in Figure 4. Photographs of the bridge are shown in Appendix 1.



Figure 2 – Site Location Map. The Bridge Location is Pinned.

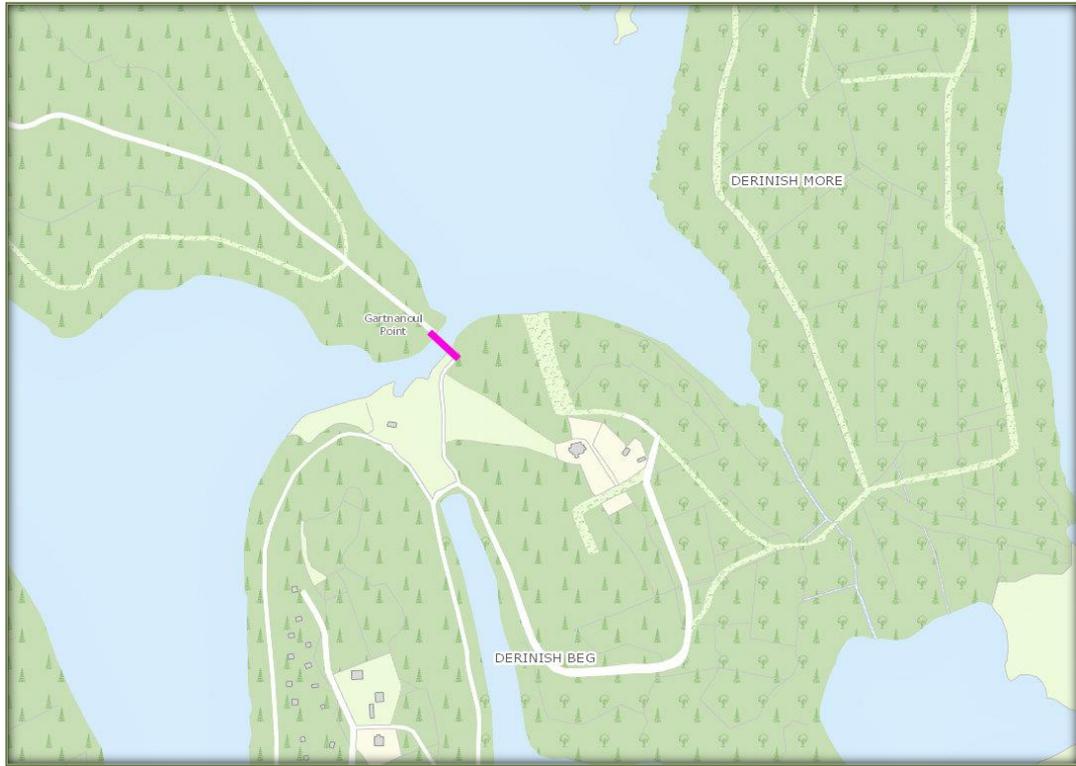


Figure 3 – Site Location Map. The Location of the Bridge is Highlighted in Pink.

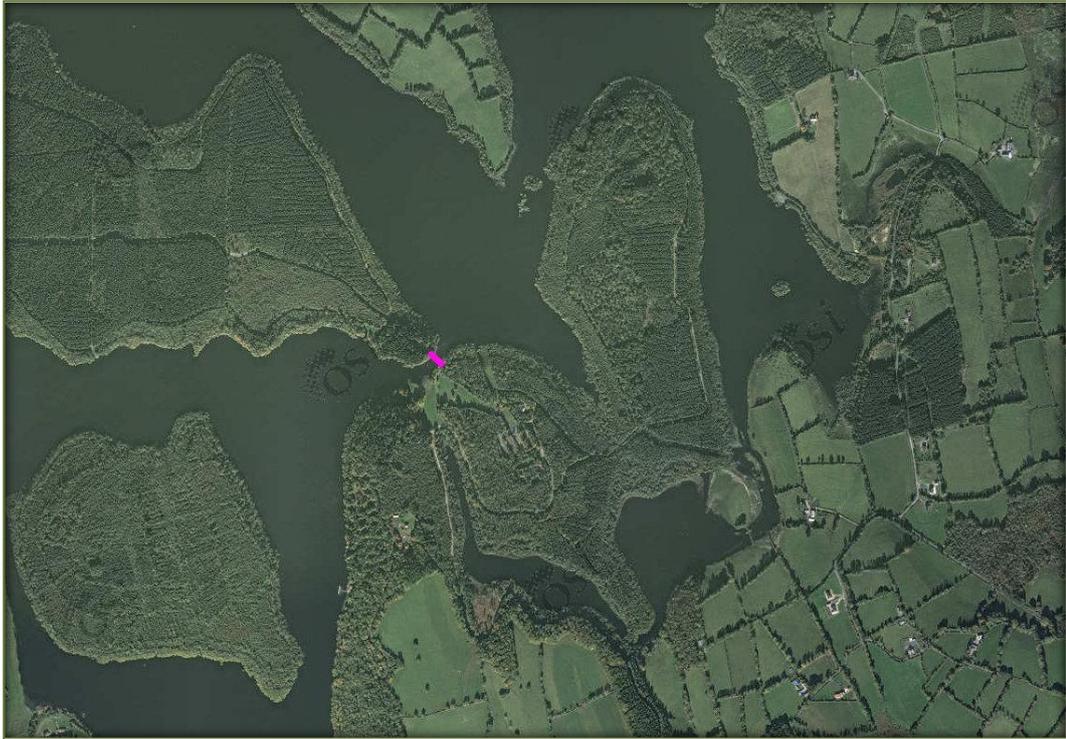


Figure 4a – Aerial Photo of the Location of the Bridge Showing a Wide View of the Habitats Surrounding the Area



Figure 4b – Close Up Aerial Showing the Location of the Bridge

HABITATS AND SPECIES

The habitats within Killykeen Forest Park are dominated by mixed broadleaved woodland and the open water habitats of Lough Oughter.

The habitats immediately adjacent to the bridge include amenity – neutral grasslands and buildings and artificial surfaces. The grassland habitats along the shores of the lake are kept mown around the bridge. Further along the lake shore, the woodland habitats extend down to the waters edge.

The proposed works at the abutments will take place on an existing hard surface with concrete and tarmacadam. There will be no loss or disturbance to any other areas of biodiversity value along the lakeshore.

A selection of photographs from the area is provided in Appendix 1.

WATER FEATURES AND QUALITY

The Proposed works are within the Erne Hydrometric Area, Catchment, Sub-Catchment and Sub-Basin. The EPA have defined the ecological status of Lough Oughter (South) as poor. Under the requirements of the Water Framework Directive this is unsatisfactory all waterbodies must achieve good status within a specified time period.

3.3 NATURA 2000 SITES IDENTIFIED

In accordance with the guidelines issued by the Department of the Environment and Local Government, a list of Natura 2000 sites within 15km of the proposed development have been identified and described according to their site synopsis, qualifying interests and conservation objectives. In addition, any other sites further than this, but potentially within its zone of interest were also considered. The zone of impact may be determined by an assessment of the connectivity between the application site and the designated areas by virtue of hydrological connectivity, atmospheric emissions, flight paths, ecological corridors etc.

For significant effects to arise, there must be a potential impact facilitated by having a *source*, i.e., the proposed development and activities arising out of its construction or operation, a *receptor*, i.e., the European site and its qualifying interests and a subsequent *pathway* or *connectivity* between the source and receptor, e.g., a water course. The likelihood for significant effects on the European site will largely depend on the characteristics of the source (e.g., nature and scale of the construction works), the characteristics of the existing pathway and the characteristics of the receptor, e.g., the sensitivities of the Qualifying Interests (habitats or species) to changes in water quality.

There are two Natura 2000 designated sites within 15km of the application site. These designated areas and their closest points to the proposed development site are summarised in Table 1 and a map/aerial photograph showing their locations relative to the application site are shown in Figures 5 and 6. A full description of these sites can be read on the website of the National Parks and Wildlife Service (npws.ie).

Site Name & Code	Distance	Qualifying Interests	Potential Effects
Lough Oughter and Associated Loughs SAC 000007	Works are Within SAC	<ul style="list-style-type: none"> Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i>-type vegetation Bog woodland Otter <i>Lutra lutra</i> 	<i>The potential for significant effects to arise on these QIs will be considered further.</i>
Lough Oughter Complex SPA 004049	Works are Within SPA	<ul style="list-style-type: none"> Great Crested Grebe (<i>Podiceps cristatus</i>) Whooper Swan (<i>Cygnus cygnus</i>) Wigeon (<i>Anas penelope</i>) Wetlands & Waterbirds 	<i>The potential for significant effects to arise on these QIs will be considered further.</i>

Table 1 – Natura 2000 Sites Within the Zone of Influence of the Works

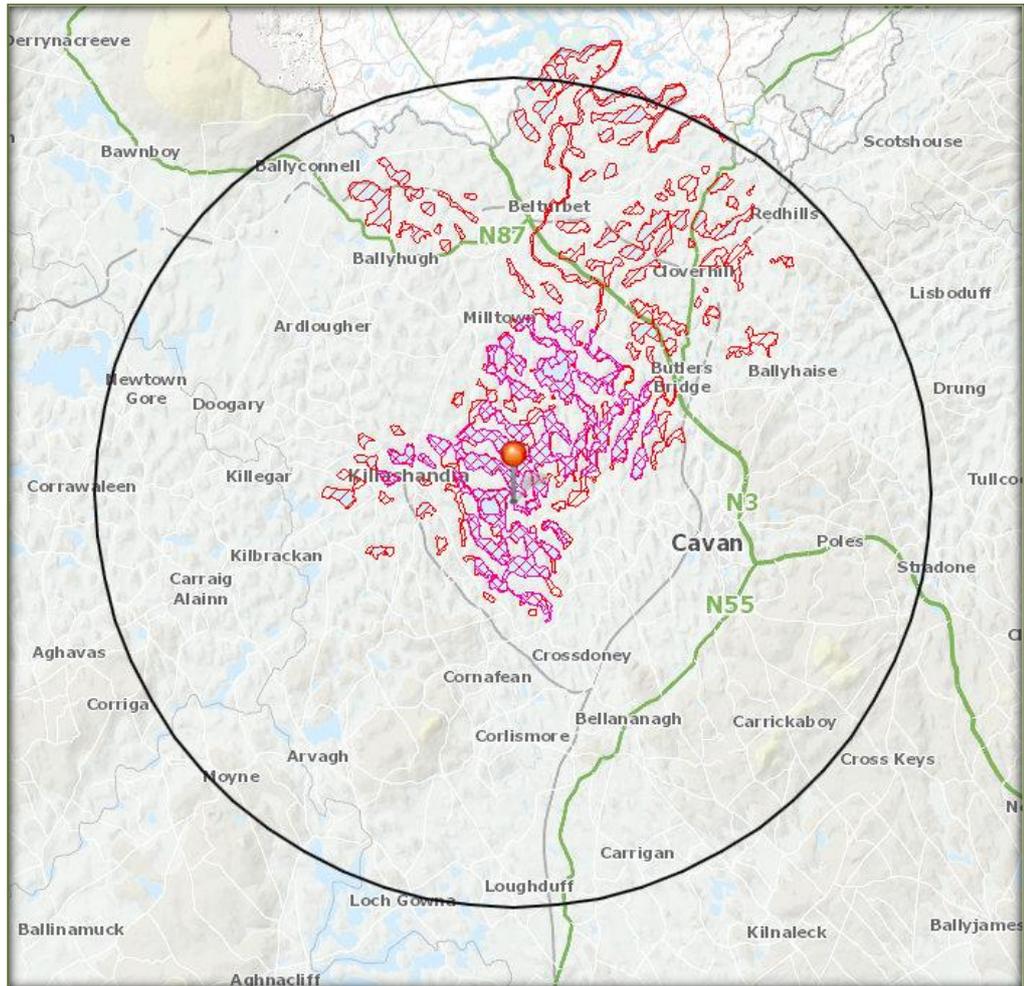


Figure 5 – The Proposed Works (Pinned) in relation to the Natura 2000 Sites (SACs – Red Hatching; SPAs – Pink Hatching)



Figure 6 – The Proposed Works (Pinned) in relation to the Natura 2000 Sites (SACs – Red Hatching; SPAs – Pink Hatching)

LOUGH OUGHTER AND ASSOCIATED LOUGHS (SAC SITE CODE 000007)

Site Synopsis

Lough Oughter and its associated loughs occupy much of the lowland drumlin belt in north and central Cavan between Upper Lough Erne, Killeshandra and Cavan town. The site is a maze of waterways, islands, small lakes and peninsulas including some 90 inter-drumlin lakes and 14 basins in the course of the Erne River. The area lies on Silurian and Ordovician strata with Carboniferous limestone immediately surrounding.

This site is a candidate Special Area of Conservation for natural eutrophic lakes and bog woodland, two habitats listed on Annex I of the E.U. Habitats Directive and for the otter, a species listed on Annex II of the same Directive. The site also contains areas of dry woodland, marsh, reedbed and wet pasture.

Drainage within the area is inefficient and the water levels prone to natural fluctuation as a result. The regularly flooded areas still accommodate a variety of specialist plant species such as Amphibious Bistort (*Polygonum amphibium*) and Marsh Foxtail (*Alopecurus geniculatus*), as well as rarer species such as Needle Spike-Rush (*Eleocharis acicularis*) and Lesser Marshwort (*Apium inundatum*).

The lakes and basins are shallow, and the water well mixed and nutrient rich (eutrophic). The aquatic flora is varied with several pondweed species such as Bluntleaved Pondweed (*Potamogeton obtusifolius*), Shining Pondweed (*Potamogeton lucens*), Broad-leaved Pondweed (*Potamogeton natans*), Reddish Pondweed (*Potamogeton alpinus*) and Various-leaved Pondweed (*Potamogeton gramineus*). Typical in the zone of aquatic plants are Yellow Water-lily (*Nuphar lutea*), Canadian Pondweed (*Elodea canadensis*), Mare's Tail (*Hippuris vulgaris*), Water Milfoil (*Myriophyllum spicatum*), Brooklime (*Veronica beccabunga*), Water Dropwort (*Oenanthe spp.*) and Starwort (*Callitriche sp.*). The aquatic community includes species of limited distribution in Ireland such as the Duckweed species *Lemna gibba* and *Spirodela polyrhiza*.

Around much of the shoreline there are well developed swamp and marsh communities, typically with a zone of Bulrush (*Schoenoplectus lacustris*) in front of a zone of Common Reed (*Phragmites australis*) which is in turn backed by a more species rich zone of sedges, grasses and herbs, particularly Bottle Sedge (*Carex rostrata*), Common Sedge (*Carex nigra*), Creeping Bent (*Agrostis stolonifera*), Meadowsweet (*Filipendula ulmaria*), Marsh Helleborine (*Epipactis*

palustris), Water Plantain (*Alisma plantago-aquatica*), Rough Horsetail (*Equisetum hyemale*), Water Horsetail (*Equisetum fluviatile*) and Wild Angelica (*Angelica sylvestris*). Less widespread species also occur on the wet lake margins; species such as Water Dock (*Rumex hydrolapathum*), Greater Water-parsnip (*Sium latifolium*), Cowbane (*Cicuta virosa*), Tufted Sedge (*Carex elata*), Water Soldier (*Stratiotes aloides*), Arrowhead (*Sagittaria sagittifolia*), Flowering Rush (*Butomus umbellatus*) and Greater Spearwort (*Ranunculus lingua*) may be locally prominent.

There are many variations on this typical zonation of sheltered shores with species such as Reedmace (*Typha* spp.), Branched Bur-Reed (*Sparganium erectum*) and Reed Canary-grass (*Phalaris arundinacea*) gaining local prominence. More exposed shores lack the extensive swamp zones, here smaller species such as Common Spike Rush (*Eleocharis palustris*) can be found.

Level, wet pastures tend to be dominated by Creeping Bent (*Agrostis stolonifera*) and Rush species (*Juncus* sp.) with a scattering of marshland and wet grassland plants such as Marsh Marigold (*Caltha palustris*), Water Forget-me-not (*Myosotis scorpiodes*) and Yellow Iris (*Iris pseudacorus*). Soft Rush (*Juncus effusus*) is most abundant with frequent Hard Rush (*Juncus inflexus*) and Sharp-Flowered Rush (*Juncus acutiflorus*) and less widespread Conglomerate Rush (*Juncus conglomeratus*) also occurring.

Where a general lack of grazing pressure or a particular slope has allowed it, deciduous woodland has re-established itself behind the reedbeds. Two species of Willow (*Salix caprea* and *Salix cinerea*) are common constituents along with Alder (*Alnus glutinosa*), Downy Birch (*Betula pubescens*), Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*). Along submerged margins Alder and Willow are most commonly found with a flooded understorey typically containing Reed Canarygrass, Meadow Sweet, Yellow Flag and in places Tufted Sedge (*Carex elata*) and Greater Tussock Sedge (*Carex paniculata*). Downy Birch occurs along lake edges and also forms stands of wet woodland on cutover bog with varying degrees of wet and dry peat. Purple Moor-grass (*Molinia caerulea*), Marsh Cinquefoil (*Potentilla palustris*) and Bog Moss (*Sphagnum* sp.) occur in areas with pools and dry areas. Where there is dry peat, Bracken (*Pteridium aquilinum*), Bramble (*Rubus fruticosus* agg.) and Gorse (*Ulex* sp.) occur under the Birch canopy. Birch dominated wood is also found in association with Ling Heather (*Calluna vulgaris*) bog.

In areas of wet bog with good *Sphagnum* cover, bog woodland has developed. Downy Birch characterises this habitat; other typical species include Purple Moor-grass (*Molinia caerulea*) and Bottle Sedge (*Carex rostrata*).

Dry broad-leaved woodland is characterised by Ash (*Fraxinus excelsior*), Hazel, Holly (*Ilex aquifolium*) and Oak (*Quercus spp.*), while shrubs include Blackthorn (*Prunus spinosa*), Spindle (*Euonymus europaeus*) and Guelder Rose (*Viburnum opulus*). The Red Data Book species Bird Cherry (*Prunus padus*) has also been recorded from the site. The clayey soils have a characteristic flora, including Wood Avens (*Geum urbanum*), Wood Sorrel (*Oxalis acetosella*), Primrose (*Primula vulgaris*), Herb Robert (*Geranium robertianum*) and Wood Sedge (*Carex sylvatica*).

The site supports a substantial population of water birds including internationally important numbers of Whooper Swan (average peak 231) and nationally important numbers of Tufted Duck (average peak 247) and Cormorant (average peak 130) as well as important numbers of species such as Greenland White-fronted Goose, Great Crested Grebe, Wigeon, Teal and Pochard. Lapwing, Snipe and Golden Plover also utilise the wet grassland areas. Wildfowl Sanctuaries exist at Inchin Lough, Derrygid Lough, Farnham Lough, Derrybrick Lough, Derrinishbeg Lough and Annagh Lough. Part of the site is designated an SPA under the EU Birds Directive.

Otter, a species listed on Annex II of the E.U. Habitats Directive occurs at the site. Irish Hare has also been recorded. Both of these species are listed in the Irish Red Data Book and are legally protected under the Wildlife Act 1976.

The main threats to the quality of the site are water polluting activities such as run-off from fertiliser and slurry application and sewage discharge which have raised the nutrient status of some lakes to hypertrophic. Housing and boating developments are on the increase, adjacent to and within the site respectively. There is also significant fishing and shooting pressure on and around the lakes. Increased afforestation has resulted in some loss of wetland habitat and also loss of feeding ground for wintering birds such as Greenland White-fronted Geese.

The Lough Oughter area contains important examples of two habitats listed on Annex I of the E.U. Habitats Directive and supports a population of the Annex II species, otter. The site as a whole is the best inland example of a flooded drumlin landscape in Ireland and has many

rich and varied biological communities. Nowhere else in the country does such an intimate mixture of land and water occur over a comparable area, and many of the species of wetland plants, some considered quite commonplace in Lough Oughter and its associated loughs, are infrequent elsewhere.

Site Specific Conservation Objectives

Site Specific Conservation Objectives (SSCOs) for this site have recently been prepared (NPWS, 2021)¹. These SSCO are outlined in Tables 2 – 4.

Natural Eutrophic Lakes with Magnopotamion and Hydrocharition-type Vegetation

3150

The SSCO for this habitat is to *restore* its favourable conservation condition which is generally defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	Restore, subject to natural processes
Vegetation composition: Typical species	Occurrence	Typical species present, in good condition, and demonstrating typical abundances and distribution
Vegetation composition: characteristic zonation	Occurrence	All characteristic zones should be present, correctly distributed and in good condition
Vegetation distribution: maximum depth	Metres	Maintain maximum depth of vegetation, subject to natural processes
Hydrological regime: water level fluctuations	Metres	Maintain appropriate natural hydrological regime necessary to support the habitat
Lake substratum quality	Various	Maintain appropriate substratum type, extent and chemistry to support the vegetation
Transparency	Metres	Maintain/restore appropriate Secchi transparency. There should be no decline in Secchi depth/transparency
Nutrients	µg/l P; mg/l N	Restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species
Phytoplankton biomass	µg/l Chlorophyll a	Restore appropriate water quality to support the habitat, including good chlorophyll a status
Phytoplankton composition	EPA phytoplankton composition metric	Restore appropriate water quality to support the habitat, including good phytoplankton composition status
Attached algal biomass	Algal cover	Maintain/Restore trace/ absent attached algal biomass (<5% cover)
Water quality: macrophyte status	EPA macrophyte metric (The Free Index)	Restore good macrophyte status
Acidification status	pH units; mg/l	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes
Water colour	mg/l PtCo	Maintain/Restore appropriate water colour to support the habitat

¹ NPWS (2021) Conservation Objectives: Lough Oughter and Associated Loughs SAC 000007. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

Dissolved organic carbon (DOC)	mg/l PtCo	Maintain/Restore appropriate organic carbon levels to support the habitat
Turbidity	Nephelometric turbidity units/ mg/l SS/ other appropriate units	Maintain/Restore appropriate turbidity to support the habitat
Fringing habitat: area and condition	Hectares	Maintain?restore the area and condition of fringing habitats necessary to support the natural structure and functioning of the lake habitat

Table 2 – Natural Eutrophic Lakes with Magnopotamion and Hydrocharition-type Vegetation 3150

Potential Significant Effects

The QI occurs in Killykeen Forest Park and the bridge extends over this habitat. Potential significant effects upon this QI have been considered. There will be no works in this habitat itself as the foundations and steel structures of the bridge already exist and no instream works will be required. There will be no reduction in this habitat or changes to its distribution arising from the proposed works. There will be no changes to the characteristic zonation of this lake or changes to the distribution of vegetation in this habitat. There will be no impacts upon the hydrological regime or the water quality of this lake arising from the proposed works. The fringing habitat around this QI will be maintained at all times and no natural fringing habitats will be disturbed, lost or fragmented. All proposed works and associated activities such as machine storage will occur away from the lake, in areas of low biodiversity value. Significant effects upon this QI can therefore be ruled out.

Bog Woodland g1Do

The SSCO for this habitat is to *maintain* its favourable conservation condition which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes
Habitat distribution	Occurrence	No decline, subject to natural processes
Woodland size	Ha	Area stable or increasing. Where topographically possible, "large" woods at least 25ha in size and "woods at least 3ha in size
Woodland structure: canopy cover and height	Percentage cover; metres	Total canopy cover at least 30%; downy birch (<i>Betula pubescens</i>) comprises at least 50% of canopy cover; median canopy height at least 4m
Woodland structure: community diversity and extent	Ha	Maintain diversity and extent of community types
Woodland structure: tree size classes	Occurrence	Downy birch (<i>Betula pubescens</i>) present in each tree class size
Woodland structure: regeneration	Occurrence	At least one downy birch (<i>Betula pubescens</i>) sapling of at least 1m tall

		present within each monitoring stop
Woodland structure: senescent and dead wood	Occurrence	Senescent or dead wood present
Woodland structure: indicators of local distinctiveness	Occurrence; population size	No decline in distribution and in the case of red listed and other rare or localised species, population size
Woodland structure: indicators of overgrazing	Occurrence	All four indicators of overgrazing absent
Woodland structure: dwarf shrub cover	Percentage cover at a representative number of monitoring stops	Native dwarf shrub layer cover less than 50%; ling (<i>Calluna vulgaris</i>) cover less than 40%
Woodland structure: bryophyte cover	Percentage cover at a representative number of monitoring stops	Bryophyte cover at least 50%; bog moss (<i>Sphagnum</i> spp) cover at least 25%,
Vegetation composition: positive indicator species	Number in a representative number of monitoring stops	Downey birch (<i>Betula pubescens</i>), bog moss (<i>Sphagnum</i> spp) and at least five other positive indicator species present
Vegetation composition: negative indicator species	Percentage cover at a representative number of monitoring stops	Both native and non-native invasive species absent or under control. Total cover should be less than 10%

Table 3 – SSCOs for Bog Woodland

Potential Significant Effects

This habitat does not occur within Killykeen Forest Park. There will be no impacts or significant effects arising on this QI from the proposed works.

Otter (1355)

The SSCO for this species is to *maintain* its favourable conservation condition which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Distribution	% positive survey sites	No Significant Decline
Extent of Terrestrial Habitats	Hectares	No significant decline. Area mapped and calculated as 364.4ha along river banks/ lake shoreline/around ponds
Extent of Freshwater (River) Habitat	Km	No significant decline. Length mapped and calculated as 71.3km
Extent of Freshwater (Laker) Habitat	Hectares	No significant decline. Area mapped and calculated as 1,730.6ha.
Couching Sites and Holts	Number	No significant decline
Fish Biomass Available	Kg	No significant decline
Barriers to connectivity	Number	No significant increase

Table 4 – SSCOs for Otter

Potential Impacts

The otter occurs throughout Killykeen Forest Park. It is likely that this species commutes both in the aquatic habitats of the lake and along the lake margins. The presence of this species is positively correlated with good water quality and deterioration of same will lead to impacts upon this species. Otters have two basic requirements – aquatic prey and safe refuges where they can rest. In freshwater areas, the diet of the otter consists of a variety of fish from sticklebacks to salmon and eels, whilst crayfish and frog availability can also be important. Impacts that reduce the quality of, or cause disturbance to, their terrestrial or aquatic habitats are likely to affect otters. The main threats to otters in Ireland are thought to be: (1) habitat destruction, including river drainage and the clearance of bank-side vegetation; (2) pollution, particularly organic pollution resulting in fish kills; (3) disturbance of habitat due to recreational activities, and (4) accidental deaths (NPWS, 2009).

There will be no fragmentation of habitats that are used by the otter as all development works will be confined to existing built habitats and amenity grasslands. No intact riparian treelines or woodland habitats around the lake will be fragmented or lost. The works will not require instream works of loss of any riparian habitat around the lake. There will be no decrease in water quality locally which could impact upon this species and significant effects upon this species are not likely to occur.

THE LOUGH OUGHTER SPA 004049

Site Synopsis

Lough Oughter is of importance for a range of wintering waterfowl. Of particular note is an internationally important population of Whooper Swan (302) that is based in the area and which uses the lakes as a roost - all figures are average peaks for the 5 seasons 1995/96-1999/00. A population of Greenland White-fronted Goose (67) of regional importance also roosts on the lakes and feeds mainly on nearby improved grassland. The site supports nationally important wintering populations of four species, i.e. Great Crested Grebe (92), Mute Swan (128), Wigeon (910) and Goldeneye (123). Other species which occur regularly include Teal (225), Mallard (341), Pochard (60), Tufted Duck (160), Lapwing (523), Curlew (95), Little Grebe (9), Cormorant (83) and Black-headed Gull (357).

Lough Oughter is at the centre of the breeding range of the Great Crested Grebe in Ireland and the site supports in excess of 10% of the estimated national breeding total (115 individuals in 1986-88). A small colony of Common Tern occurs, with 10 pairs on Farnham Lough in 1995.

Lough Oughter is a very nutrient-enriched lake and numbers of wintering wildfowl, especially diving duck, are likely to be depressed due to the enriched conditions. Water pollution is likely to remain a problem in the near future. Recreational and wildfowling activities currently cause some disturbance to the birds and any increase in such activities would be of concern. Increased afforestation in surrounding areas could result in the loss of feeding habitat for wintering birds such as Whooper Swan and Greenland White-fronted Goose.

The Lough Oughter SPA is of importance for both wintering and breeding birds. Of particular note is the internationally important population of Whooper Swan that is based in the area. The site also supports nationally important populations of a further four wintering species. The site is of especial importance for one of the highest breeding concentrations of Great Crested Grebe in the country. Of note is that three of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Greenland White-fronted Goose and Common Tern.

Site Specific Conservation Objectives

Site specific conservation objectives for this site have not yet been prepared and objectives for this site remain generic. Overall, the SSCOs for SPAs are largely similar. Therefore, the attributes and targets that should define the favourable conservation condition of the QIs

for this site were taken from the most common attributes and targets used for the conservation objectives of SPA bird species in general. These are outlined in Table 8 below.

Parameter	Attribute	Measure	Target
Population	Population trend	Percentage change as per population trend assessment using waterbird count data collected through the Irish Wetland Bird Survey and other surveys	Long term population trend stable or increasing
Range	Distribution	Range, timing and intensity of use of areas used by waterbirds, as determined by regular low tide and other waterbird surveys.	No significant decrease in the range, timing or intensity of use of areas by the QI, other than that occurring from natural patterns of variation

Table 4 – Conservation Objectives for SPAs

For wetlands, the conservation objectives are:

Parameter	Attribute	Measure	Target
Area	Habitat Area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 765 hectares, other than that occurring from natural patterns of variation

Table 5 – Conservation Objectives for SPAs (Wetlands)

Potential Impacts

The proposed widening of the bridge will not impact upon any existing habitats used by the birds. The bridge ends exist areas of artificial surfaces and amenity grasslands. Nesting habitats used by these bird species, e.g., reed beds and marsh habitats, will not be affected. The proposed works will not require in-stream works or machinery. Noisy excavators and machinery will not be required. The works will be completed with a short time frame. Significant effects upon the QI bird species of this lake are unlikely to occur. Significant effects upon wetlands and waterbirds are not likely to occur.

3.4 NATURAL HERITAGE AREAS

The proposed application site is within the Lough Oughter and Associated Loughs pNHA 000007. A map indicating the position of the pNHA in relation to the application site can be seen in Figure 7.

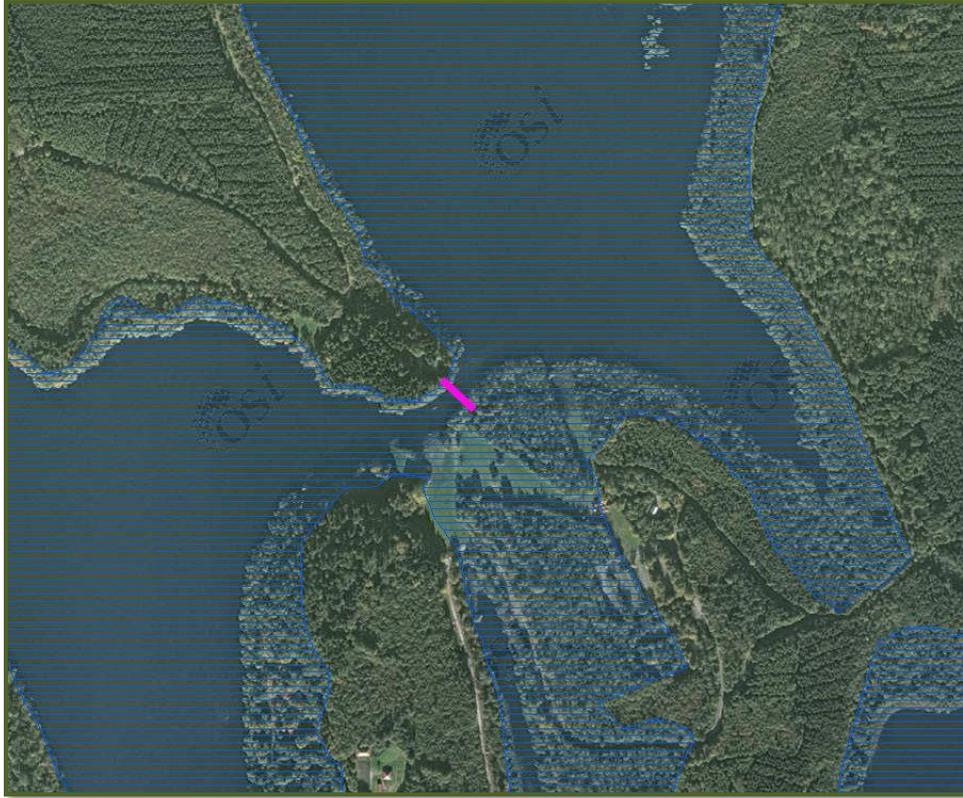


Figure 7 – The Proposed Works in Relation to the Lough Oughter pNHA (Blue Hatching)

3.5 IMPACT ASSESSMENT

The potential impacts of the proposed development on the Lough Oughter and Associated Loughs SAC and the Lough Oughter Complex SPA are described below.

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on nearby Natura 2000 site:

The proposed development involves widening of the bridge in Killykeen Forest Park. The widening will allow for greater distance between people on the bridge. The widening will not allow for the passage of cars over the bridge. The proposed works do not require any in-stream works. The proposed works will have no significant effects upon the Natura 2000 sites identified. There are no individual elements of the proposed project that are likely to give rise to negative impacts on these aforementioned sites either during the construction or operation of the proposed development. There will be no direct, indirect or cumulative impacts upon the Natura 2000 sites identified. There will be no impacts upon the qualifying interests of these sites.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the nearby Natura 2000 sites by virtue of:

Size and scale: Given the small size and scale of the development in relation to the overall size of the Natura 2000 sites identified, the likelihood of any direct, indirect or cumulative impacts on these designated sites are low.

Land-take: The bridge in Killykeen has existing for many years, prior to the designation of the area as an SAC / SPA. There will be no land take from the SPA/SPA.

Distance from Natura 2000 site or key features of the site: Works are within the SAC / SPA.

Resource requirements (water abstraction etc.): No resources will be taken from the SAC / SPA and there are no resource requirements that will impact upon any designated site.

Emissions: There will be no emissions from the works into the SAC / SPA. Construction works will be minimal and will involve the widening of the surface of the existing bridge. All support structures are in place and no instream works will be required. This work will not lead to any emissions into the SAC/SPA which could give rise to significant effects.

Excavation requirements: There will be no excavation works required as part of the proposed development.

Transportation requirements: There will be no additional transportation requirements resulting from the proposed development and associated works that will have any impact upon the SAC / SPA. The widening of the bridge will be for pedestrians / cyclists only. Cars will not be able to access the bridge.

Duration of construction, operation, decommissioning etc: Construction will take place over a

matter of weeks.

Describe any likely changes to the nearby Natura 2000 sites arising as a result of:

Reduction of habitat area: The bridge over the lake is existing, it is now being widened. The supporting structures of the wider bridge have been in place since the bridge was constructed. No instream works will be required. There will be no reduction of any habitat listed as a QI of the Lough Oughter and Associated Loughs SAC.

Disturbance to key species: There will be no disturbance to the otter or the bird species of the SPA, i.e., the whooper swan, widgeon or great crested grebe and significant effects upon these species will not arise.

Habitat or species fragmentation: The bridge over the lake is existing, it is now being widened. The supporting structures of the wider bridge have been in place since the bridge was constructed. There will be no fragmentation of any habitat or species listed as a QI of the Lough Oughter and Associated Loughs SAC or the Lough Oughter Complex SPA.

Reduction in species density: There will be no reduction in species density within the Lough Oughter and Associated Loughs SAC or the Lough Oughter Complex SPA.

Changes in key indicators of conservation value (water quality etc.): There will be no negative impacts upon surface or ground water quality within the Lough Oughter and Associated Loughs SAC or the Lough Oughter Complex SPA.

Describe any likely impacts on the nearby Natura 2000 sites as a whole in terms of:

Interference with the key relationships that define the structure or function of the site: It is not considered likely that there will be any impacts on the key relationships that define the structure or function of the Natura 2000 sites identified.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Loss - Estimated percentage of lost area of habitat: None

Fragmentation: None

Disruption & disturbance: None

Change to key elements of the site (e.g. water quality etc.): None

3.6 FINDING OF NO SIGNIFICANT EFFECTS

Finding of No Significant Effects Report Matrix	
Name of project	Widening of the Bridge at Gartanoul Point, Killykeen Forest Park.
Name and location of Natura 2000 site	The bridge is within the Lough Oughter and Associated Loughs SAC or the Lough Oughter Complex SPA.
Description of project	Upgrade Works at Gartanoul Bridge
Is the project directly connected with or necessary to the management of the site?	No
Are there other projects or plans that together with project being assessed could affect the site?	No
The Assessment of Significance of Effects	
Describe how the project is likely to affect the Natura 2000 site	Having regard to the location, nature and scale of the proposed development, it is considered that there is no potential for significant effects either from the proposed development on its own or in combination with other plans and projects.
Explain why these effects are not considered significant	Not applicable as there is no potential for negative impacts
Describe how the project is likely to affect species designated under Annex II of the Habitats Directive.	No impacts likely
Data Collected to Carry out the Assessment	
Who carried out the assessment	Noreen McLoughlin, MSC, MCIEEM. Consultant Ecologist
Sources of data	NPWS, EPA, National Biodiversity Data Centre, Cavan County Council
Level of assessment completed	Stage1 Appropriate Assessment Screening
Where can the full results of the assessment be accessed and viewed	Full results included

4 APPROPRIATE ASSESSMENT CONCLUSION

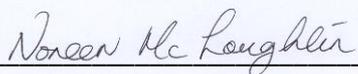
In accordance with Article 6(3) of the Habitats Directive, the relevant case law, established best practice and the precautionary principle, this AA Screening Report has examined the details of the project in relation to the relevant Natura 2000 sites within 15km of the application site.

At this stage of the AA process, it is for the competent authority, i.e., Cavan County Council, to carry out the screening for AA and to reach one of the following determinations:

a) AA of the proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites;

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

It is of the opinion of the author that an AA of the proposed development is not required as it can be excluded, on the basis of objective information provided in this report, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites. Therefore, this proposed project must proceed to Stage II of the Appropriate Assessment Process, i.e., a Natura Impact Statement (NIS) must be produced.



Noreen McLoughlin, MSc, MCIEEM.
Ecologist.

(PI Insurance details available on request)

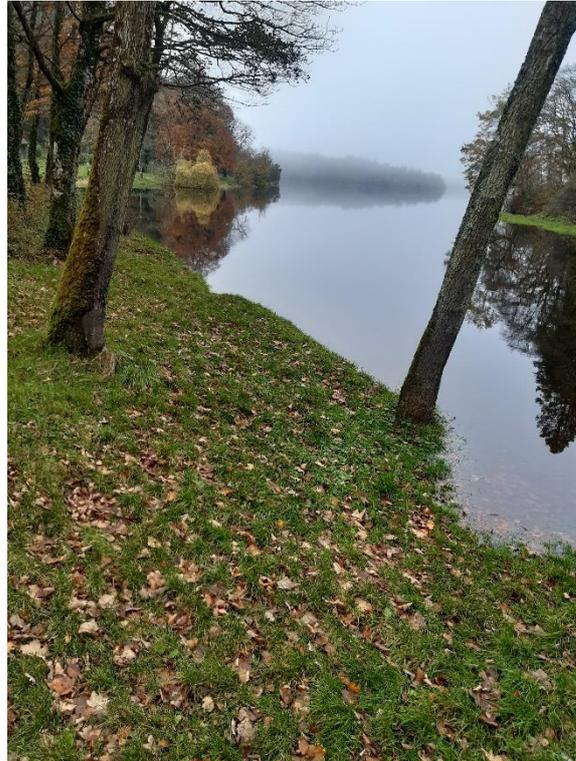
Appendix I: PHOTOGRAPHS



The Eastern End of the Bridge, Looking West



Abutment at the Eastern End



Amenity Grassland Habitat and Scattered Trees along Eastern Lake Shore



Eastern Shore, Looking North Towards Woodland Habitat



A View of the Bridge from Western Shore



Possible Otter Slide along Western Shore



A View of the Bridge from the Western Shore, looking North



View Down the Current Bridge, Looking East



A View of the Bridge from the Western Shore



A View of the Lake, Looking South

