Proposed Installation of a Traffic Signal System in Oughterard, Co. Galway

Supporting Information for Screening for Appropriate Assessment

Produced by

AQUAFACT International Services Ltd

On behalf of

Galway County Council

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1. Introduction

1.1. Background

This report has been prepared by AQUAFACT International Services Ltd. (AQUAFACT) to provide the relevant information to the competent authorities to inform the Screening for Appropriate Assessment (AA) for the proposed installation of traffic signals at Oughterard Bridge, Co. Galway (the 'Project'). The objective of the Project is to provide a safe route for pedestrians to cross the bridge, particularly primary and secondary pupils whose schools are situated to the north of the bridge. The locations of the traffic signals and reflective poles are shown in **Figure 1.1**.

There is no pre-existing footpath on the bridge so installation of a footpath on the bridge has been proposed. The proposed works will involve bolting bollards onto the bridge surface and marking the footway in red using thermoplastic road markings. Upon completion vehicular traffic will be restricted to one lane on the bridge and traffic signals are to be installed to control the traffic movements. Ducting will be installed to power and control the traffic signals. Tactile paving and road crossing points will also be installed.

The benefits resulting from the completion of the Project would include:

- Safe pedestrian route to cross the bridge at Oughterard.

The works proposed includes:

- Installation of 3 sets of traffic lights
- Installation of 9 reflective poles
- Use of hand drills to bolt reflective poles
- A 180-degree excavator (JCB) to dig for the installation of the signal bases
- Use of concrete and ducting for the signal bases

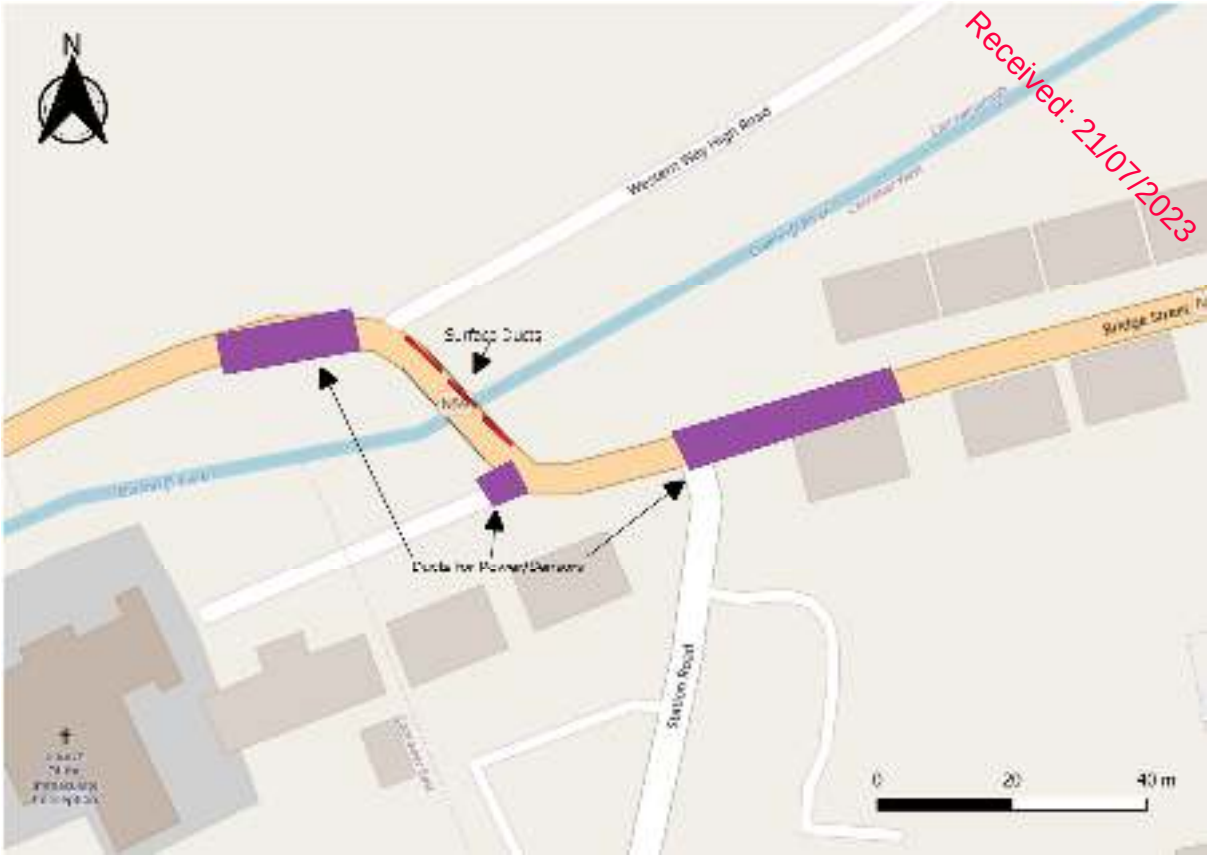

Figure 1.1: Proposed location of traffic signals and reflective poles at Oughterard Bridge.

1.2. Purpose of this report

This report has been prepared to address Article 6(3) obligations under the European Community (EC) Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (commonly known the Habitats Directive), which is transposed into Irish legislation under the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

1.3. Guidance

This report has been prepared in accordance with the following guidance:

- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice (2018)
- OPR (2021). Practice Note PN01 Appropriate Assessment Screening for Development Management
- DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Revised 2010)

- EC (2001) Managing Natura 2000 Sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC
- Department of Arts, Heritage and the Gaeltacht – National Parks and Wildlife Service DAHG - NPWS (2012) Marine Natura Impact Statements in Ireland Special Areas of Conservation, A Working Document

This assessment includes a desk-based review of available records of protected QIs and SCIs including the following sources:

- Conservation Status Assessment Reports, Backing Documents and Maps prepared to inform national reporting[1] required under Article 17 of the Habitats Directive
- Site Synopsis, Conservation Objective Reports and Natura 2000 Forms available from NPWS
- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans and Conservation Management Plans
- Existing relevant mapping and databases *e.g.* waterbody status, species and habitat distribution *etc*. (sourced from the Environmental Protection Agency - http://gis.epa.ie/, the National Biodiversity Data Centre - http://maps.biodiversityireland.ie and the NPWS - http://www.npws.ie/mapsanddata/)

1.4. Structure of this Report

The remainder of this report is structured as follows:

- **Section 2. Legislation**
- **Section 3. Assessment Methodology**
- **Section 4. Receiving Environment**
- **Section 5. Potential Environmental Impacts**
- **Section 6. Screening for Appropriate Assessment**
- **Section 7. Conclusion**

[1] The most recent Article 17 report (2019) is available at https://www.npws.ie/publications/article-17-reports/article-17-reports-2019

2. Legislation

2.1. Legislative Background

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (commonly known as the Habitats Directive) is European Community legislation regarding nature conservation established to ensure biodiversity is conserved through the conservation of natural habitats and wild fauna and flora in Europe.

The Habitats Directive was originally transposed into Irish law by the *European Communities (Natural Habitats) Regulations, 1997* (S.I. No. 94 of 1997). The 1997 Regulations were subsequently revoked and replaced by the *European Communities (Birds and Natural Habitats) Regulations 2011*, as amended (herein referred to as the 2011 Birds and Natural Habitats Regulations).

Under Regulation 42 of the 2011 Birds and Natural Habitats Regulations all competent authorities are required to conduct a screening for Appropriate Assessment (AA) and, if necessary, an AA on any plan or project on the foreshore for which it receives an application for consent, or which the authority itself wishes to undertake or adopt. This obligation derives from Articles 6(3) and 6(4) of the Habitats Directive.

The AA provision of the Habitats Directive is transposed in Ireland by the Planning and Development Act 2000 (as amended) in respect of land use plans and proposed developments requiring development consent. The Planning and Development Act, 2000 (as amended) is the basis for the Irish planning code, setting out the detail of regional planning guidelines, development plans and local area plans as well as the basic framework of the development management and consent system.

A network of sites of conservation importance hosting habitats and species as needing to be either maintained at or restored to favourable conservation status have been identified by each Member State. These sites are known as European sites within the Natura 2000 network.

European sites in Ireland that form part of the Natura 2000 network of protected sites comprise Special Areas of Conservation (SAC) sites designated due to their significant ecological importance for habitats and species protected under Annex I and Annex II, respectively, of the Habitats Directive and Special Protection Area (SPA) sites designated for the protection of populations and habitats of bird species protected under the EU Birds Directive (Council Directive 2009/409/EEC). The sites are formally designated by the relevant minister under a statutory instrument. Candidate SAC and candidate SPA

sites (*i.e.,* cSAC or cSPA) have the same level of protection as fully designated sites under Irish Law[2]. The specific named habitats and/or (non-bird) species for which an SAC or SPA are selected are called the 'Qualifying Interests' (QIs) of the site. The specific named bird species for which an SPA is selected is called the 'Special Conservation Interest' (SCI) (OPR 2021).

Following the requirements of Article 6(3) of the Habitats Directive, under Regulation 42 of the 2011 Birds and Natural Habitats Regulations, if a plan or project is not connected with, or necessary for the management of a European site and is likely to have a significant effect on the QIs or SCIs for which a site is designated either individually or in combination with other plans or projects, an AA is required to assess whether a plan or project will have any adverse effect on the integrity of a European site(s) in view of the Conservation Objectives set for the designated QIs or SCIs.

2.2. Appropriate Assessment (AA) Process

The **first stage of the AA process is Screening**; where the risk of a significant effect to a conservation feature (*i.e.,* QI or SCI) from an impact mechanism can be **excluded** on the basis of objective evidence, the designated feature and impact mechanism combination is **screened out** of further assessment. The assessments undertaken as part of the first stage of the AA process are documented in a Screening Statement for AA.

Where the Screening for AA identifies that a significant effect to a conservation feature from an impact mechanism is likely to occur, the conservation feature and the impact mechanism combination is brought forward for a detailed consideration of the potential for adverse effects. This detailed assessment of the potential for adverse effects is the second stage of the AA process. The assessments undertaken as part of the **second stage of the AA process are documented in a Natura Impact Statement** (NIS).

This report has been prepared to provide the relevant information to inform the assessments to be undertaken for the Screening Statement for AA for the Project and has been prepared to address Article 6(3) obligations under the Habitats Directive and to inform the AA determination of the competent authorities. Specifically, this report focuses on the potential effects of the proposed development to European sites.

[2] Candidate sites are those that have been submitted to the European Commission, but not yet formally adopted under Ministerial Statutory Instrument (S.I.). Legal protection, and therefore, the requirement for AA, arises from the date that the Minister gives notice of his/her intention to designate the site.

3. Assessment Methodology

3.1. Source-Pathway-Receptor and Impact Assessment

3.2. Overview

A key factor in the consideration as to whether a QI or an SCI (collectively referred to herein as conservation features) is likely to be affected by a proposed project is the existence of connectivity (or interaction or impact pathway) between the feature and the impact mechanisms associated with the Project. National guidance (DEHLG, 2009) outlines that screening for AA should be carried out for any European Site within the likely Zone of Impact (ZoI) of a plan or project.

For projects, the guidance outlines that the ZoI must be evaluated on a case-by-case basis with reference to the nature, size and location of the Project, the sensitivities of the ecological receptors and the potential for in-combination effects. **Sections 6.1** and **6.2** considers the potential effects due to the proposed Project, while **Section 6.3** considers potential in-combination effects with other plans and projects.

3.3. Methodology

This report has been prepared to assist authorities in addressing Article 6(3) obligations under the Habitats Directive and focuses on the potential effects of projects to European sites.

In order to establish the ZoI of the proposed Project, the assessment of connectivity between project impact mechanisms (or source) and a conservation feature (*i.e.,* QIs and SCIs) considers the location of the Project relative to:

- habitats and non-mobile species
- species foraging distances and migration routes
- the proximity of the Project to foraging and breeding areas
- potential changes in species behaviour
- effects on prey species resulting in alteration in interactions and associated impacts

To inform the assessment, nationally available data on protected habitats and species was mapped using a Geographic Information System (GIS) and interrogated to identify for source-pathway-receptor connectivity. The source (potential project impact mechanisms), pathways (hydrological, physical or ecological connectivity) and receptors (conservation features) were identified using GIS software and

through the examination of aerial photography and a review of ecological surveys undertaken in the area. Any conservation feature identified to have a viable source-pathway-receptor link to the proposed Project was then examined further to determine the potential for significant effects.

The assessment of project impact sources (or mechanisms) considers all relevant aspects of the proposed Project that have the potential to directly or indirectly effect conservation features.

The assessment of potential effects of the Project on conservation features of SACs and SPAs are presented in **Sections 6.1** and **6.2** while the assessment of in-combination effects is outlined in **Section 6.3.**

4. Receiving Environment

4.1. Terrestrial Environment of Project Area

The proposed Project is located at a bridge along the N59 Clifden Road in Oughterard, Co. Galway. The bridge crosses the Owenriff River which overlaps with Lough Corrib SAC. The bridge is bordered by a man-made stone wall and there are road markings along the verges. The Project occurs above, but not within, Lough Corrib SAC.

4.2. Natura 2000 Sites

4.2.1. Special Conservation Interests (SCI) Birds

The source-pathway-receptor model was used to identify any SCIs with potential links to the Project. One SPA was investigated for a link (see **Figure 4.1**):

- Lough Corrib SPA (site code: 004042)

Lough Corrib SPA (site code: 004042)

Lough Corrib SPA can be divided into two parts: a relatively shallow basin in the south, which is underlain by Carboniferous limestone, and a larger, deeper basin to the north, which is underlain by more acidic granite, schists, shales and sandstones. The Owenriff River, which is present within the vicinity of the Project, is one of many in-flowing rivers. Lough Corrib is an internationally important site that regularly supports in excess of 20,000 wintering waterbirds, including a population of Pochard that is, itself, of international importance.

This site is designated for the following SCIs: Gadwall (*Anas strepera*) [A051], Shoveler (*Anas clypeata*) [A056], Pochard (*Aythya ferina*) [A059], Tufted Duck (*Aythya fuligula*) [A061], Common Scoter (*Melanitta nigra*) [A065], Hen Harrier (*Circus cyaneus*) [A082], Coot (*Fulica atra*) [A125], Golden Plover (*Pluvialis apricaria*) [A140], Black-headed Gull (*Chroicocephalus ridibundus*) [A179], Common Gull (*Larus canus*) [A182], Common Tern (*Sterna hirundo*) [A193], Arctic Tern (*Sterna paradisaea*) [A194], Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] and Wetland and Waterbirds [A999]. The conservation objectives for this site's SCIs can be found in

Table 4.1.

Table 4.1: Special Protection Areas and Special Conservation Interests

Lough Corrib SPA			
Qualifying Interest	**Ecological Group**	**Conservation Objective**	**Foraging Behaviour**
Gadwall (*Anas strepera*) [A051]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Shoveler (*Anas clypeata*) [A056]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Pochard (*Aythya ferina*) [A059]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Tufted Duck (*Aythya fuligula*) [A061]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Common Scoter (*Melanitta nigra*) [A065]	Annex I bird species	To maintain or restore favourable conservation condition	Important nesting site.
Hen Harrier (*Circus cyaneus*) [A082]	Annex I bird species	To maintain or restore favourable conservation condition	Communally roosts in internationally important numbers at Lough Corrib in winter.
Coot (*Fulica atra*) [A125]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Golden Plover (*Pluvialis apricaria*) [A140]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	Annex I bird species	To maintain or restore favourable conservation condition	Important breeding and nesting site.
Common Gull (*Larus canus*) [A182]	Annex I bird species	To maintain or restore favourable conservation condition	Important breeding and nesting site.
Common Tern (*Sterna hirundo*) [A193]	Annex I bird species	To maintain or restore favourable conservation condition	Important breeding and nesting site.
Arctic Tern (*Sterna paradisaea*) [A194]	Annex I bird species	To maintain or restore favourable conservation condition	Important breeding and nesting site.
Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	Annex I bird species	To maintain or restore favourable conservation condition	Winters at Lough Corrib.
Wetland and Waterbirds [A999]	Annex I bird species	To maintain or restore favourable conservation condition	

Figure 4.1: Greater Project area for Oughterard Bridge Traffic Signal System, Co. Galway showing location of Project site relative to the SPA.

4.2.2. Qualifying Interests (QIs) Annex I Habitats and Annex II Species

The source-pathway-receptor model was used to identify any potential SACs with links to the Project. The following two SACs were investigated for a link (see **Figure 4.2**); the sites are:

- Lough Corrib SAC (site code: 000297)
- Connemara Bog Complex SAC (site code: 002034)

The conservation features (*i.e.,* QIs) of the above SACs are listed in **Table 4.2** alongside conservation objectives set for the conservation features. Brief descriptions of the SACs are provided below.

Lough Corrib SAC (site code: 000297)

Lough Corrib is situated to the north of Galway city and is the second largest lake in Ireland. The lake can be divided into two parts: a relatively shallow basin, underlain by Carboniferous limestone, in the south, and a larger, deeper basin, underlain by more acidic granite, schists, shales and sandstones to the north. A number of rivers are included within the SAC as they are important for Atlantic Salmon, *e.g.,* the Owenriff river to the west. In addition to the rivers and lake basin, adjoining areas of conservation interest, including raised bog, woodland, grassland and limestone pavement, have been incorporated into the site. Lough Corrib is considered one of the best sites in the country for Otter, due to the sheer size of the lake and associated rivers and streams, and also the generally high quality of the habitats. Atlantic Salmon (*Salmo salar*) use the lake and rivers as spawning grounds. The main threats to the quality of this site are from water polluting activities, uncontrolled discharge of sewage which is causing localised eutrophication of the lake and housing and boating development, which is causing the loss of native lakeshore vegetation.

This site is designated for the following QIs: Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110], Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130], Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140], Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260], Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210], *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the *Rhynchosporion* [7150], Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210], Petrifying springs with tufa formation (*Cratoneurion*) [7220], Alkaline fens [7230], Limestone pavements [8240], Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0], Bog woodland [91D0], Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029], White-clawed Crayfish (*Austropotamobius pallipes*) [1092], Sea Lamprey (*Petromyzon marinus*) [1095], Brook Lamprey (*Lampetra planeri*) [1096], Salmon (*Salmo salar*) [1106], Lesser Horseshoe Bat (*Rhinolophus hipposideros*) [1303],

Otter (*Lutra lutra*) [1355], Slender Naiad (*Najas flexilis*) [1833] and Slender Green Feather-moss (*Hamatocaulis vernicosus*) [6216]. The conservation objectives for this site's QIs can be found in **Table 4.2**.

Connemara Bog Complex SAC (site code: 002034)

The Connemara Bog Complex SAC is a large site encompassing the majority of the south Connemara lowlands in Co. Galway. The site supports a wide range of habitats, including extensive tracts of western blanket bog, which form the core interest, as well as areas of heath, fen, woodlands, lakes, rivers and coastal habitats. The site is underlain predominantly by various Galway granites, with small areas along the northern boundary of marble, schist and gneiss. The main damaging operations and threats in the Connemara Bog Complex are peat cutting, over-grazing and afforestation.

This site is designated for the following QIs: Coastal lagoons [1150], Reefs [1170], Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110], Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130], Natural dystrophic lakes and ponds [3160], Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260], Northern Atlantic wet heaths with *Erica tetralix* [4010], European dry heaths [4030], *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410], Blanket bogs (* if active bog) [7130], Transition mires and quaking bogs [7140], Depressions on peat substrates of the *Rhynchosporion* [7150], Alkaline fens [7230], Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0], Marsh Fritillary (*Euphydryas aurinia*) [1065], Salmon (*Salmo salar*) [1106], Otter (*Lutra lutra*) [1355] and Slender Naiad (*Najas flexilis*) [1833]. The conservation objectives for this site's QIs can be found in **Table 4.2**.

Table 4.2: Special Areas of Conservation and Qualifying Interests.

Lough Corrib SAC		
Qualifying Habitat (*=Priority Habitat)	**Ecological Group**	**Conservation Objective**
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	Annex I freshwater habitat	To restore favourable conservation condition
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130]	Annex I freshwater habitat	To restore favourable conservation condition
Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140]	Annex I freshwater habitat	To restore favourable conservation condition
Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]	Annex I freshwater habitat	To maintain favourable conservation condition
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-*	Annex I natural and semi-natural grassland formation	To maintain favourable conservation condition

Brometalia) (* important orchid sites) [6210]		
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]	Annex I natural and semi-natural grassland formation	To maintain favourable conservation condition
Active raised bogs [7110]	Annex I raised bogs and mires and fens habitat	To restore favourable conservation condition
Degraded raised bogs still capable of natural regeneration [7120]	Annex I raised bogs and mires and fens habitat	To restore favourable conservation condition
Depressions on peat substrates of the *Rhynchosporion* [7150]	Annex I raised bogs and mires and fens habitat	To restore favourable conservation condition
Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210]	Annex I raised bogs and mires and fens habitat	To maintain favourable conservation condition
Petrifying springs with tufa formation (*Cratoneurion*) [7220]	Annex I raised bogs and mires and fens habitat	To maintain favourable conservation condition
Alkaline fens [7230]	Annex I raised bogs and mires and fens habitat	To maintain favourable conservation condition
Limestone pavements [8240]	Annex I rocky habitats and caves	To maintain favourable conservation condition
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	Annex I forest habitat	To maintain favourable conservation condition
Bog woodland [91D0]	Annex I forest habitat	To maintain favourable conservation condition
Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]	Annex II invertebrate species	To restore favourable conservation condition
White-clawed Crayfish (*Austropotamobius pallipes*) [1092]	Annex II invertebrate species	To maintain favourable conservation condition
Sea Lamprey (*Petromyzon marinus*) [1095]	Annex II vertebrate species	To restore favourable conservation condition
Brook Lamprey (*Lampetra planeri*) [1096]	Annex II vertebrate species	To maintain favourable conservation condition
Salmon (*Salmo salar*) [1106]	Annex II vertebrate species	To maintain favourable conservation condition
Lesser Horseshoe Bat (*Rhinolophus hipposideros*) [1303]	Annex II vertebrate species	To restore favourable conservation condition
Otter (*Lutra lutra*) [1355]	Annex II vertebrate species	To maintain favourable conservation condition
Slender Naiad (*Najas flexilis*) [1833]	Annex II plant species	To restore favourable conservation condition
Slender Green Feather-moss (*Hamatocaulis vernicosus*) [6216]	Annex II plant species	To maintain favourable conservation condition
Connemara Bog Complex SAC		
Coastal lagoons [1150]	Annex I coastal habitat	To restore favourable conservation condition
Reefs [1170]	Annex I coastal habitat	To maintain favourable conservation condition
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	Annex I freshwater habitat	To restore favourable conservation condition
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130]	Annex I freshwater habitat	To restore favourable conservation condition
Natural dystrophic lakes and ponds [3160]	Annex I freshwater habitat	To maintain favourable conservation condition

Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]	Annex I freshwater habitat	To maintain favourable conservation condition
Northern Atlantic wet heaths with *Erica tetralix* [4010]	Annex I temperate heath and scrub habitat	To restore favourable conservation condition
European dry heaths [4030]	Annex I temperate heath and scrub habitat	To restore favourable conservation condition
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]	Annex I natural and semi-natural grassland formation	To maintain favourable conservation condition
Blanket bogs (* if active bog) [7130]	Annex I raised bogs and mires and fens habitat	To maintain favourable conservation condition
Transition mires and quaking bogs [7140]	Annex I raised bogs and mires and fens habitat	To restore favourable conservation condition
Depressions on peat substrates of the *Rhynchosporion* [7150]	Annex I raised bogs and mires and fens habitat	To restore favourable conservation condition
Alkaline fens [7230]	Annex I raised bogs and mires and fens habitat	To maintain favourable conservation condition
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	Annex I forest habitat	To maintain favourable conservation condition
Marsh Fritillary (*Euphydryas aurinia*) [1065]	Annex II invertebrate species	To maintain favourable conservation condition
Salmon (*Salmo salar*) [1106]	Annex II vertebrate species	To maintain favourable conservation condition
Otter (*Lutra lutra*) [1355]	Annex II vertebrate species	To maintain favourable conservation condition
Slender Naiad (*Najas flexilis*) [1833]	Annex II plant species	To restore favourable conservation condition

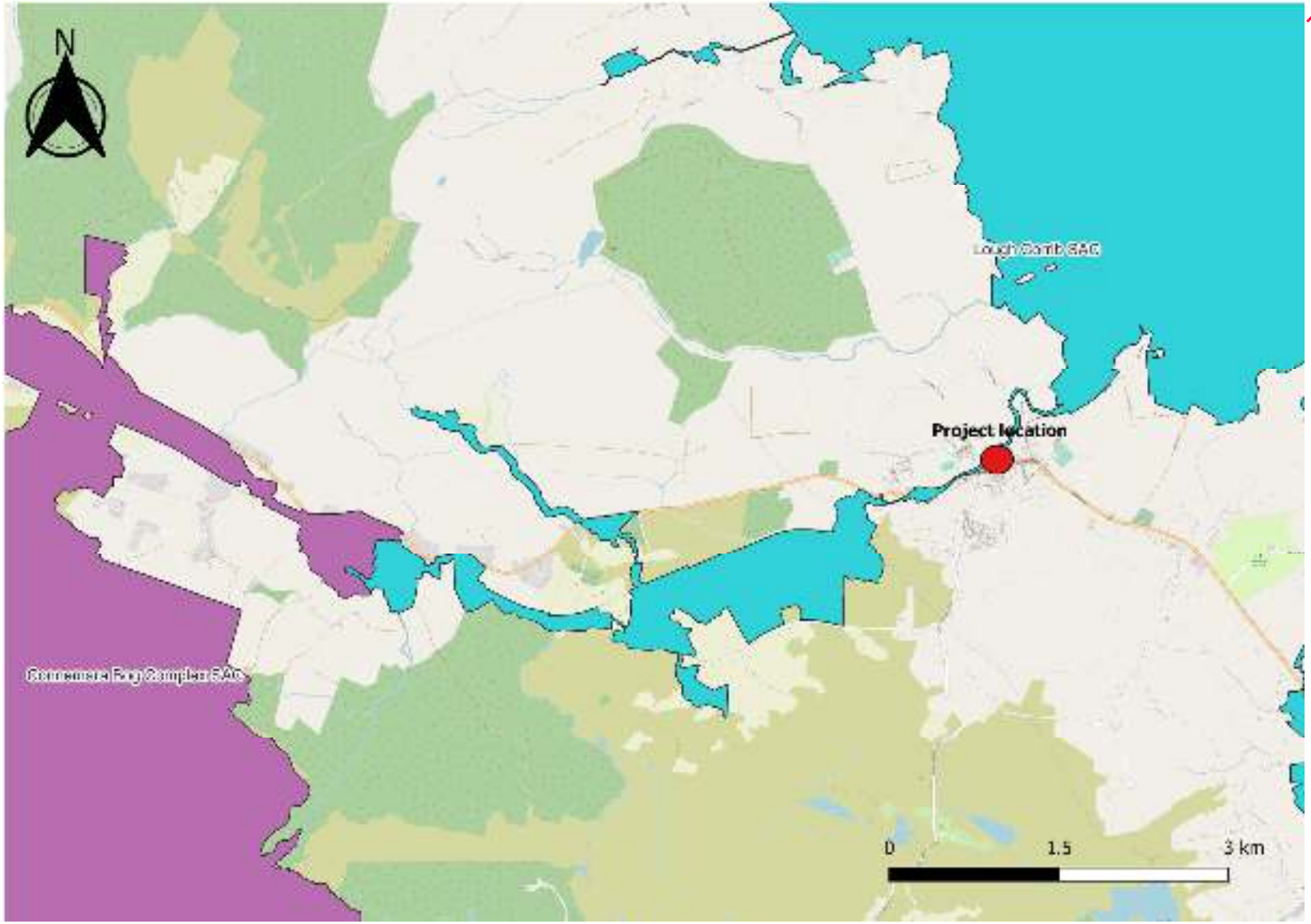

Figure 4.2: Greater Project area for Oughterard Bridge Traffic Signal System, Co. Galway showing location of the Project site relative to the SACs.

5. Potential Environmental Impacts

5.1. Potential Impact Mechanisms

A detailed description of the Project is provided above; given the nature of the proposed activities associated with the Project, the potential impact mechanisms (or sources of impact) are:

Noise disturbance associated with JCB excavator, hand drills, generator and dumper.

Vibration disturbance associated with drilling.

The proposed deployment will temporarily increase the number of works vehicles and machinery in the area by two during installation of the traffic signal system and reflective poles. Fuelling of works machinery will take place offsite, therefore it is not considered likely that the proposed Project will give rise to a pollution event and is therefore not considered further in this report.

*5.1. Noise Disturbance to Otter (***Lutra lutra***)*

Given the proximity of Lough Corrib SAC to the Project, there is potential for the QI otter (*Lutra lutra*) to interact with the Project. Otters may be negatively affected by the noise caused by the works, *e.g.,* drilling. However, given the expanse of suitable habitat available to otters outside of the relatively small Project area and the locomotive ability of this QI, an interaction is unlikely to occur. It can be concluded that otters will not occur in high numbers near the Project area and so potential significant interactions will not occur.

5.2. Noise Disturbance to SCIs

Given the proximity of Lough Corrib SPA to the Project, there is potential for SCIs to interact with the Project. SCIs may be negatively affected by the noise caused by the works, *e.g.,* drilling. However, given the expanse of suitable habitat available to SCIs outside of the relatively small Project area and the locomotive ability of SCIs, an interaction is unlikely to occur. It can be concluded that SCIs will not occur in high numbers, if at all, near the Project area and so potential significant interactions will not occur.

*5.3. Vibration Disturbance to Freshwater Pearl Mussel (***Margaritifera margaritifera***)*

Given the Project works will occur directly overhead Lough Corrib SAC, there is potential for interaction between the QI Freshwater Pearl Mussel (*Margaritifera margaritifera*) and the Project. Vibrations

from the hand drill may transfer to the riverbed negatively affecting the Freshwater Pearl Mussel. However, these vibrations are not considered significant as they are unlikely to be stronger than those caused because of heavy vehicles, *e.g.,* trucks and buses, crossing the bridge at the Project site. It can be concluded that a potentially significant interaction will not occur.

Regarding the issue of flooding of the Owenriff in Oughterard, there have been a number of occasions when the river broke its banks and caused localised flooding. The most recent event was caused by Storm Desmond in December 2015. However, the installation of traffic lights on the bridge where the N59 crosses the Owenriff will have no potential to increase the rate/extent to which the river floods nor will the lights have any possible effects to exacerbate flooding events.

6. Screening for Appropriate Assessment

The obligation to undertake AA under the 2011 Birds and Natural Habitats Regulations derives from the Habitats Directive. Regulation 42(1) of the 2011 Regulations requires that:

> *A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which* ***is not directly connected with or necessary to the management of the site as a European Site****, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site*.

The proposed Project is not associated with the 'management' of European sites within the Natura 2000 Network having regard to Article 6 of the Habitats Directive and as such it is appropriate that the proposed Project is subject to a screening for AA. This screening assessment investigates, in view of best scientific knowledge, whether the proposed Project, individually or in combination with other plans and projects, would be likely to have a significant effect on European sites.

As outlined in **Section 1**, this report, which has been prepared to assist competent authorities address Article 6(3) obligations of the Habitats Directive and associated national regulations, focuses on the potential effects to European sites associated with the proposed Project. A description of the Project is outlined in **Section 1.1**, while **Section 6.1** considers the likelihood of significant effects of the Project on European sites both in isolation and in combination with other projects.

6.1. Assessment of Potential Significant Effects to QIs of SACs

Otters (*Lutra lutra*)

The Project does not directly overlap with an SAC, however the bridge on which the Project is located passes over Lough Corrib SAC. This SAC supports a number of QIs, otters being of note for the assessment of potential significant effects. The installation of traffic signals and reflective poles at the Project site will result in some local noise disturbance. However, otters are typically most active early in the morning and late in the evening and given the Project works are scheduled to take place during normal work hours *i.e.,* 09:00-18:00 Monday-Friday, a significant interaction is unlikely between this QI and the Project.

Lough Corrib SAC covers an area of 20,556 ha, with the lake itself extending 18,240 ha. Excluding the extent of both terrestrial and freshwater lake habitats available to otter within this SAC, 314.2 km of

freshwater river habitat is available to this QI. In addition to the timing of the works, the small spatial extent of the Project relative to the area of suitable habitat available and the temporary nature of the Project (*c.* two weeks) indicates that **no effect is likely to occur** between this QI and the Project. Therefore, the potential impact mechanism is **screened out** of further assessment.

Otters are a QI of Connemara Bog Complex SAC which is located downstream of the Project site, therefore there is a potential pathway for otters to traverse between this SAC and the Project. Given that the Project site does not support any of the QIs of Connemara Bog Complex SAC, the Project is temporary in nature and occupies a small spatial extent, **no effect is likely to occur** between this QI and the Project. Therefore, the potential impact mechanism is **screened out** of further assessment.

Freshwater Pearl Mussel (*Margaritifera margaritifera*)

This QI of Lough Corrib SAC is also of note for the assessment of potential significant effects. The use of a hand drill to bolt reflective poles will subsequently transmit vibrations into the river where Freshwater Pearl Mussel are a QI. However, considering the vibrations transmitting to the river resulting from heavy vehicles crossing the bridge at the Project site would be much greater than those caused by operation of the hand drill, **no effect is likely to occur** between this QI and the Project. Therefore, the potential impact mechanism is **screened out** of further assessment.

6.2. Assessment of Potential Significant Effects to SCIs of SPAs

Annex I bird species.

The installation of traffic signals and reflective poles at the Project site does not directly overlap with an SPA, however there is a potential pathway between Lough Corrib SPA and the Project. Considering the locomotive ability of birds, they could potentially interact with the Project; similarly, this same ability allows birds to avoid unfavourable local environments. This SPA covers an area of similar extent to Lough Corrib SAC, *i.e.,* much greater than the area of the Project.

Considering the small spatial extent of the Project relative to the area of suitable habitat available and the temporary nature of the Project (*c.* two weeks), **no effect is likely to occur** between the SCIs of Lough Corrib SPA and the Project. Therefore, the potential impact mechanism is **screened out** of further assessment.

The summaries of the assessment are presented in **Table 6.1** according to the ecological group identified.

Summary

Given the nature, duration and spatial extent of the proposed works associated with the Project, and the location of the QIs of SACs and SPAs, it can be concluded that there is **no pathway for significant effects**. Given that there is no potential pathway for significant effects, the QI and impact mechanism combinations are **screened out** of further assessment.

Table 6.1: Impact Mechanism – Noise

Site	Qualifying Interest		Source-Pathway-Receptor Assessment
Lough Corrib SAC (site code: 000297)	**Annex I Habitats**	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or *Isoeto-Nanojuncetea* [3130] Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]	The Project works were assessed in relation to impacts to Annex I habitats and Annex II species. The Project is exclusively terrestrial in an urban area and temporary in nature. In relation to freshwater and rural terrestrial habitats, there is no potential pathway for interaction between the impact mechanism and QIs, therefore they are excluded at the Screening for AA stage. Consequently, it can be concluded that there will be no significant effects from the impact mechanism to the QIs. There is no potential pathway for interaction between the impact mechanism and the QIs. The QIs are located outside of the ZoI of the project impact mechanisms; consequently, it is possible to exclude the potential for significant effects at the Screening for AA stage. The QIs and impact mechanism combinations are screened out.

Lough Corrib SAC (site code: 000297)	**Annex I Habitats**	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the *Rhynchosporion* [7150] Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] Petrifying springs with tufa formation (*Cratoneurion*) [7220] Alkaline fens [7230] Limestone pavements [8240] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] Bog woodland [91D0]	The Project works were assessed in relation to impacts to Annex I habitats and Annex II species. The Project is exclusively terrestrial in an urban area and temporary in nature. In relation to freshwater and rural terrestrial habitats, there is no potential pathway for interaction between the impact mechanism and QIs, therefore they are excluded at the Screening for AA stage. Consequently, it can be concluded that there will be no significant effects from the impact mechanism to the QIs. There is no potential pathway for interaction between the impact mechanism and the QIs. The QIs are located outside of the ZoI of the project impact mechanisms; consequently, it is possible to exclude the potential for significant effects at the Screening for AA stage. The QIs and impact mechanism combinations are screened out.
Lough Corrib SAC (site code: 000297)	**Annex II Species**	White-clawed Crayfish (*Austropotamobius pallipes*) [1092] Sea Lamprey (*Petromyzon marinus*) [1095] Brook Lamprey (*Lampetra planeri*) [1096] Salmon (*Salmo salar*) [1106] Lesser Horseshoe Bat (*Rhinolophus hipposideros*) [1303] Slender Naiad (*Najas flexilis*) [1833] Slender Green Feather-moss (*Hamatocaulis vernicosus*) [6216]	The Project is exclusively terrestrial in an urban area and temporary in nature. In relation to freshwater and rural terrestrial species, there is no potential pathway for interaction between the impact mechanism and QIs, therefore they are excluded at the Screening for AA stage. Consequently, it can be concluded that there will be no significant effects from the impact mechanism to the QIs. There is no potential pathway for interaction between the impact mechanism and the QIs. The QIs are located outside of the ZoI of the project impact mechanisms; consequently, it is possible to exclude the potential for significant effects at the Screening for AA stage. The QIs and impact mechanism combinations are screened out.

Lough Corrib SAC (site code: 000297)	**Annex II Species**	Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]	Though the Project works will emit some vibrations, these will be not as strong as those caused by the passage of heavy vehicles, additionally the operation of the hand drill will be temporary. The QI will not be significantly impacted by the Project and therefore it is possible to exclude the potential for significant effect at the Screening for AA stage. The QI and impact mechanism combinations are screened out.
		Otter (*Lutra lutra*) [1355]	Though the Project works will emit some noises, this will be local to the Project area, which occupies a small spatial extent, and temporary in nature. The Project works will take place during normal working hours, *i.e.,* not when otters are most active, therefore there is no potential pathway for interaction between the impact mechanism and the QIs. The QI will not be significantly impacted by the Project and therefore it is possible to exclude the potential for significant effect at the Screening for AA stage. The QI and impact mechanism combinations are screened out.

Connemara Bog Complex SAC (site code: 002034)	**Annex I Habitats**	Coastal lagoons [1150] Reefs [1170] Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] Natural dystrophic lakes and ponds [3160] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] Northern Atlantic wet heaths with *Erica tetralix* [4010] European dry heaths [4030] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] Blanket bogs (* if active bog) [7130] Transition mires and quaking bogs [7140] Depressions on peat substrates of the *Rhynchosporion* [7150] Alkaline fens [7230] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	The Project is exclusively terrestrial in an urban area and temporary in nature. In relation to freshwater and rural terrestrial habitats and species, there is no potential pathway for interaction between the impact mechanism and QIs, therefore they are excluded at the Screening for AA stage. Consequently, it can be concluded that there will be no significant effects from the impact mechanism to the QIs. There is no potential pathway for interaction between the impact mechanism and the QIs. The QIs are located outside of the ZoI of the project impact mechanisms; consequently, it is possible to exclude the potential for significant effects at the Screening for AA stage. The QIs and impact mechanism combinations are screened out.
	Annex II Species	Marsh Fritillary (*Euphydryas aurinia*) [1065] Salmon (*Salmo salar*) [1106] Slender Naiad (*Najas flexilis*) [1833]	

Connemara Bog Complex SAC (site code: 002034)	**Annex II Species**	Otter (*Lutra lutra*) [1355]	Though the Project works will emit some noises, this will be local to the Project area, which occupies a small spatial extent, and temporary in nature. The Project works will take place during normal working hours, *i.e.,* not when otters are most active, therefore there is no potential pathway for interaction between the impact mechanism and the QIs. The QI will not be significantly impacted by the Project and therefore it is possible to exclude the potential for significant effect at the Screening for AA stage. The QI and impact mechanism combinations are screened out.
Lough Corrib SPA (site code: 004042)	**Annex I bird species**	Gadwall (*Anas strepera*) [A051] Shoveler (*Anas clypeata)* [A056] Pochard (*Aythya ferina*) [A059] Tufted Duck (*Aythya fuligula*) [A061] Common Scoter (*Melanitta nigra*) [A065] Hen Harrier (*Circus cyaneus*) [A082] Coot (*Fulica atra*) [A125] Golden Plover (*Pluvialis apricaria*) [A140] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Common Tern (*Sterna hirundo*) [A193] Arctic Tern *(Sterna paradisaea*) [A194] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] Wetland and Waterbirds [A999]	The Project works were assessed in relation to impacts to Annex I bird species. As the Project will occupy a small spatial extent and is temporary in nature, any potential overlap would be minimal and is considered not to cause significant disturbance to community or habitat. Consequently, it can be concluded that there will be no significant effects from the impact mechanism to the SCIs. It is possible to exclude the potential for significant effects at the Screening for AA stage. The SCIs and impact mechanism combinations are screened out.

6.3. Plans or Projects That Might Act In Combination

As outlined in above the obligation to undertake AA under the 2011 Birds and Natural Habitats Regulations derives from the Habitats Directive. Regulation 42(1) of the 2011 Regulations requires that:

> *A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or* ***in combination with other plans or projects*** *is likely to have a significant effect on the European site*.

It is therefore required that the potential impacts of the proposed Project be considered in combination with other relevant plans or projects. Given the nature of the proposed activities associated with the Project, the potential project impact mechanisms (or sources of impact) are:

1. Noise emissions from JCB excavator, hand drill, generator, dumper and overall works
2. Vibrations from hand drill

The assessment of potential in-combination effects considers other plans and projects that may result in cumulative significant effects QIs and SCIs of SACs and SPAs.

To inform the assessment of potential in-combination effects a review of consent applications for projects in the vicinity of the proposed Project included on the following websites was completed in June 2022:

- DHPLG - EIA Portal
    - https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal
- Galway County Council - Planning System
    - https://www.eplanning.ie/GalwayCC/searchresults

The assessment of potential in-combination effects also considered *negative impacting threats and pressures* and *positive impacting activities/management* affecting the sites as identified in Natura 2000 forms published for the SPA and SAC sites available through the NPWS website (https://www.npws.ie/protected-sites).

Screening assessments of potential cumulative or in-combination effects from current and proposed projects listed on above websites are summarised in **Table 6.2**.

In summary, the assessments presented **Table 6.2** conclude that there is no potential likelihood for significant effects caused by cumulative or in-combination effects.

It was concluded that there is **no potential likelihood for significant effects from the proposed Project in combination with other plans or projects**.

Table 6.2: Assessment of potential in-combination effects.

Website	Project Details	File Reference	Date Application Received	Assessment of Potential Cumulative or In-combination Effects	Conclusion
DHPLG - EIA Portal	A search of the DHPLG EIA Portal was undertaken to examine projects with potential for in-combination effects.	-	-	No applications were made that would have potential for in-combination effects to occur with the proposed Project.	No potential significant cumulative or in-combination effects
Galway County Council - Planning System	A search of the Galway planning databases was undertaken to examine projects with potential for in-combination effects.	-	-	Applications typically made to Galway County Council and published on the planning database consisted of extensions and renovations to existing houses, and retention of existing developments. These are small-scale terrestrial developments which do not have the potential to result in cumulative effects in-combination with the proposed Project.	No potential significant cumulative or in-combination effects

6.4. Screening Outcome

The current assessment investigates the potential for the proposed Project to have significant effects on European Sites within the Natura 2000 network.

The assessment has determined, in light of best available scientific data, that there is no potential for significant effects on the SACs and any SPAs from the proposed Project *i.e.,* the likelihood of significant effects on all European sites has been ruled out.

The assessment also determined that there is no potential likelihood for significant effects from the proposed Project in combination with other plans or projects. The findings of the assessment are summarised in **Table 6.3**.

Table 6.3: Screening matrix of the proposed Project

Screening Matrix	
Brief description of the Project or plan	The objective of the Project is to establish a safer route for pedestrians to cross the bridge in Oughterard, Co. Galway (**Figure 1.1**). The Project comprises the installation of a traffic signal system (3 sets of traffic lights) and 9 reflective poles along the bridge. The Project duration is expected to be *c.* 2 weeks.
European Site(s)	
Brief description of the European site(s)	Adopting a precautionary principle, the following European sites were considered in this screening for AA; the sites are: • Lough Corrib SAC • Connemara Bog Complex SAC • Lough Corrib SPA The QIs and SCIs of the above SACs and SPAs are listed in **Table 4.1** and **Table 4.2** alongside conservation objectives set for the conservation features.
Assessment Criteria	
Describe the individual elements of the Project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European site.	Given the nature of the proposed activities associated with the Project as detailed in **Section 1.1**, the potential project impact mechanisms (or sources of impact) are: **1.** Noise emissions **2.** Vibration emissions

	It is concluded that there is no pathway between the project impact mechanisms and the QIs and SCIs of SACs and SPAs. The assessments are presented in full in **Sections 6.1 and 6.2**. The assessment of potential in-combination effects considers other plans and projects, which may result in cumulative significant effects to QIs and SCIs of SACs and SPAs. In summary, the assessments presented **Table 6.2** conclude that there is no potential likelihood for significant effects caused by cumulative or in-combination effects.
Describe any likely direct, indirect or secondary impacts of the Project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of Size and scale, Land-take.	
Distance from the Natura 2000 site or key interests of the site;	The Project lies over Lough Corrib SAC but does not directly overlap with this SAC. The Project does not overlap with the other SACs and SPA that were considered in this assessment. The SACs and SPAs assessed are detailed in **Section 4.2** above.
Resource requirements (water abstraction *etc.*);	Installation of the traffic signal systema and reflective poles will require little service maintenance and the installation period is relatively short-term (*c.* 2 weeks). No resources will be required for the Project.
Emissions (disposal to land, water or air);	Noise emissions from operation of drill for installation of poles. Noise emissions from JCB excavator. Noise emissions from generator and dumper. Vibrations from hand drill. Fumes from machinery for installation of traffic signal system.
Excavation requirements, Transportation requirements;	***Excavation requirements*** A 180-degree excavator (JCB) will dig to install the signal bases. ***Transportation requirements*** The JCB, dumper and generator will be transported to the site by lorry.
Duration of construction, operation, Decommissioning, Other;	The proposed Project will operate for *c.* 2 weeks after which the works machinery and all equipment will leave the Project area. It is anticipated that the installation will commence in Q3 of 2022, subject to planning consent.
Describe any likely changes to the site arising as a result of: Reduction in habitat area; Disturbance to key species; Habitat or species fragmentation; Reduction in species density; Changes in key indicators of conservation value (water quality *etc.*). Climate change	It is concluded that there is no potential likelihood for significant effects caused by the Project in isolation or in combination with other plans and projects regarding the following aspects of SACs and SPAs: • Reduction in habitat area • Habitat or species fragmentation • Reduction in species density • Water quality Regarding disturbance to key species, otters could potentially be impacted by the noise emissions from the Project works. Considering: • the small spatial extent of the Project relative to the suitable habitat available to otters

	• the timing and temporary nature of the Project any significant effects regarding disturbance to key species resulting from noise emissions can be discounted. Also, regarding disturbance to key species, Freshwater Pearl Mussel could potentially be impacted by vibrations transmitted into the river resulting from operation of a hand drill during the Project works. Given that heavy vehicles crossing the bridge would cause stronger vibrations to be transmitted into the river any significant effects regarding disturbance to key species resulting from vibration emissions can be discounted. With regards effects to climate change, the main source of atmospheric emissions from the proposed Project will result from engine exhaust gases from engines associated with manoeuvring and installing the traffic signal system. Given the temporary nature of the proposed works, significant effects on climate from atmospheric emissions can be discounted.
Describe any likely impacts on the Natura 2000 site in terms of: Interference with the key relationships that define the structure of the site; Interference with key relationships that define the function of the site.	It is concluded that there is no potential likelihood for significant effects caused by the Project in isolation or in combination with other plans and projects.
Provide indicators of significance resulting from the identification of effects set out above in terms of: Loss; Fragmentation; Disruption; Disturbance; Change to key elements of the site.	Indicators of significance are loss of SCI and QI species and habitats. Indicators of significance are behavioural changes in SCI and QI species. It is concluded that there is no potential likelihood for significant effects caused by the Project in isolation or in combination with other plans and projects.
Describe from the above those elements of the Project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	It is concluded that there is no potential likelihood for significant effects caused by the Project in isolation or in combination with other plans and projects.

7. Conclusion

Following a comprehensive evaluation of the potential direct, indirect and cumulative impacts on the SCIs considering their Conservation Objectives, it has been concluded that the proposed development will not have a significant effect on any European site.

It has been objectively concluded by AQUAFACT, following an examination, analysis and evaluation of the relevant information, including the nature of the proposed Project, that the proposed Project does not pose a risk of significantly affecting (either directly or indirectly) any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion.

8. References

DAHG NPWS. (2012). Marine Natura Impact Statements in Ireland Special Areas of Conservation, A Working Document. https://www.npws.ie/sites/default/files/general/Marine%20Assessment%20Working%20Document.pdf

DEHLG. (2009). Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Revised 2010). https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf

EC. (2018). Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice (2018). https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/EN_art_6_guide_jun_2019.pdf

EC. (2001). Managing Natura 2000 Sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC. https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf

NPWS. (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report. https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf

NPWS. (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill. https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol2_Habitats_Article17.pdf

NPWS. (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill. https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol3_Species_Article17.pdf

OPR (2021). Practice Note PN01 Appropriate Assessment Screening for Development Management. https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf