



**Report supporting the  
Appropriate Assessment Screening of  
Foreshore License (FC/15/30) in  
Rathmullan, Co. Donegal**

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## Glossary of Acronyms

AA	Appropriate Assessment
CM	Conservation measure
COs	Conservation Objective(s)
DAFM	Department of Food Agriculture and the Marine
DEHLG	Department of Environment, Heritage, and Local Government
EIAR	Environmental Impact Assessment report
European site	Natura 2000 site
FCS	Favourable conservation status
IROPI	Imperative reasoning of overriding public interest
Natura 2000	Network of nature protection areas, Including the SACs and SPA designated under the Habitats Directive
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
QIs	Qualifying Interest(s)
SAC	Special Area(s) of Conservation
SCI	Special Conservation Interest(s)
SPA	Special Protected Area(s)

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## Executive Summary

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The Marine Institute has been requested to review an application for foreshore activities (FC/15/30) for the repair and refurbishment of the viaduct and pierhead in Rathmullan Pier, Rathmullan, Co. Donegal. This report documents the Stage 1 Screening process of the Appropriate Assessment process of this proposed activity as specified under the Habitat Directive (European Community (EC) Directive 92/43/EEC).

The proposed site overlaps with Lough Swilly SAC and is adjacent to an additional 6 SACs (within 15km) and 13 SPAs (within 50km).

Based on the location, nature and zone of impact of potential effects, and the best scientific information available, this screening assessment has identified QIs or associated conservation features in the Natura sites that the proposed activities will spatially overlap with or has the possibility to significantly affect.

On the basis that likely significant effects of the proposed activity on the European sites cannot be ruled out, the following QIs are brought forward for Stage 2 Appropriate Assessment.

### SAC QIs

- Lough Swilly SAC (002287)
  - Estuaries [1130]
  - *Lutra lutra* (Otter) [1355]

### SPA QIs

- Great Crested Grebe (*Podiceps cristatus*) [A005]
- Grey Heron (*Ardea cinerea*) [A028]
- Whooper Swan (*Cygnus cygnus*) [A038]
- Greylag Goose (*Anser anser*) [A043]
- Shelduck (*Tadorna tadorna*) [A048]
- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Mallard (*Anas platyrhynchos*) [A053]
- Shoveler (*Anas clypeata*) [A056]
- Scaup (*Aythya marila*) [A062]
- Goldeneye (*Bucephala clangula*) [A067]
- Red-breasted Merganser (*Mergus serrator*) [A069]
- Coot (*Fulica atra*) [A125]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Knot (*Calidris canutus*) [A143]
- Dunlin (*Calidris alpina*) [A149]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Greenshank (*Tringa nebularia*) [A164]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]
- Common Gull (*Larus canus*) [A182]
- Sandwich Tern (*Sterna sandvicensis*) [A191]
- Common Tern (*Sterna hirundo*) [A193]
- Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]
- Wetland and Waterbirds [A999]

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## 1. Introduction

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### 1.1 Overview of this document

This is an Appropriate Assessment screening supporting the Appropriate Assessment of foreshore activities at Natura 2000 site Lough Swilly SAC (site code 002287) and Lough Swilly SPA (site code 004075).

This report is to consider if the proposed activities are likely to significantly affect the Qualifying Interests (QIs) of Natura 2000 sites in view of their Conservation Objectives (COs), and any adjacent sites, individually or in combination with existing or planned activities. This is achieved by following the screening process outlined in this document. If there is potential for the activities considered to likely, significantly affect QIs and their conservation features, they will be carried forward for full assessment and considered on a cumulative basis with other activities and other potentially disturbing activities.

### 1.2 Legislative Context

Articles 3 - 11 of the European Community (EC) Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the **Habitats Directive**<sup>1</sup>) provide the legislative means to protect habitats and species of Community interest through the conservation of an EU-wide network of protected sites, known as **Natura 2000** sites<sup>2</sup>. 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 replaced by the *European Communities (Birds and Natural Habitats) Regulations 2011*<sup>3</sup>, as amended (referred to as the *2011 Birds and Natural Habitats Regulations*). Natura 2000 sites are referred to as European sites in these Regulations.

The terms Natura 2000 sites and European sites are synonymous - the term Natura 2000 sites is used in this report. Natura 2000 sites in Ireland form part of the Natura 2000 European network of protected sites. SACs are designated due to their significant ecological importance for habitats and for species protected under Annex I and Annex II respectively of the Habitats Directive. SPAs are designated for the protection of populations and habitats of bird species protected under the Birds Directive, EC 79/409/EEC<sup>4</sup>. The National Parks and Wildlife Service (NPWS) are the competent authority for the management of Natura 2000 sites in Ireland.

The specific named habitats and/or (non-bird) species for which an SAC or SPA are selected are called the Qualifying Interests (QI), of the site. The specific named bird species for which a SPA is selected is called the 'Special Conservation Interests' (SCI). However, in practice, the common terminology of QI applies also to SCI. The term QI is used throughout this report.

Under Article 6(3) of the Habitats Directive any plan or project likely to significantly affect the integrity of a Natura 2000 site must be subject to an Appropriate assessment (AA). The AA focuses on the likely significant effects of a plan or project on a Natura 2000 site and considers the implications for the site

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<sup>1</sup> [https://ec.europa.eu/environment/nature/legislation/habitatsdirective/index\\_en.htm](https://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm)

<sup>2</sup> [https://ec.europa.eu/environment/nature/natura2000/index\\_en.htm](https://ec.europa.eu/environment/nature/natura2000/index_en.htm)

<sup>3</sup> <https://www.irishstatutebook.ie/eli/2011/si/477/made/en/print>

<sup>4</sup> [https://ec.europa.eu/environment/nature/legislation/birdsdirective/index\\_en.htm](https://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm)

in view of its Conservation Objectives (COs). Every Natura 2000 site has COs which are set out by the NPWS.

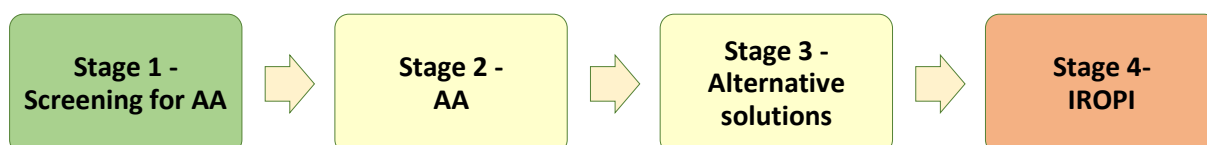
The licensing authority determines applications for foreshore licences and are also the competent authority responsible for undertaking AA of applications. As part of the process, they must determine if the proposed activities are likely to significantly impact the Conservation Status of QIs and the integrity of the Natura 2000 site. They must base their determination on an AA and they are also responsible for ensuring that an AA is carried out.

### 1.3 Appropriate Assessment (AA) Process

The requirement for an AA derives directly from Article 6(3), which outlines the decision-making tests for considering plans and projects that may have a significant effect on a Natura 2000 site. No definition of the content or scope of AA is given in the Habitats Directive, but the concept and approach are set out in EC guidance <sup>5</sup>.

The *Guidance on Appropriate Assessment of Plans and Projects in Ireland* document<sup>6</sup> published by the Department of Environment, Heritage and Local Government in 2009, sets out how an AA of plans or proposals in Natura 2000 sites in Ireland should be carried out in alignment with EC guidance. In 2021, the Office of the Planning Regulator (OPR) published a practice note on AA Screening<sup>7</sup>, which provides guidance on how a planning authority should screen an application for planning permission for AA.

The *Guidance on Appropriate Assessment of Plans and Projects in Ireland* document promotes a four-stage process to complete the AA. The four stages are:



The key procedures involved in completing the first two stages of the AA process are described below. Stage 3 and Stage 4 (Imperative reasoning of overriding public interest) are not applicable here.

#### 1.3.1 Stage 1: Appropriate Assessment Screening

*Stage 1 AA Screening* is the process that addresses and records the reasoning and conclusions in relation to whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of the site's COs. If the effects, on the basis of objective information, are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to *Stage 2 Appropriate Assessment*. Screening should be undertaken without the inclusion of mitigation. The triggers for appropriate assessment screening are based on a 'likelihood' (read as 'possibility') of a potential significant effect occurring and not on certainty. This test is based on the precautionary principle<sup>8</sup>. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no effect.

<sup>5</sup> EC 2018. Guidance on Aquaculture and Natura 2000 Sustainable aquaculture activities in the context of the Natura 2000 Network [Link](#)

<sup>6</sup> DEHLG, 2009. Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. [Link](#)

<sup>7</sup> OPR - Office of Planning Regulator (2021). Appropriate Assessment Screening for Development Management. March 2021. 43pp [Link](#)

<sup>8</sup> OPR - Office of Planning Regulator (2021). Appropriate Assessment Screening for Development Management. March 2021. 43pp [Link](#)

### 1.3.2 Stage 2: Appropriate Assessment

This stage considers whether the plan or project, alone or in combination with other projects or plans, will adversely affect the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. This stage requires a targeted scientific examination of the plan or project and the relevant Natura 2000 sites, to identify and characterise any possible implications for the site in view of the site's QIs and COs, taking account of in combination effects.

The sensitivity of identified QIs in relation to the proposed activities is assessed and the significance of any identified adverse effects is then determined. If adverse effects are determined to be likely, then their scale, magnitude, intensity, and duration are considered in light of the COs and relevant guidance documents. If the assessment is negative, then recommendations on mitigation measures or on licensing decisions will be made.

### 1.4 Structure of Report

This screening report provides:

1. **Introduction** - an outline of the legislative context and the processes.
2. **Appropriate Assessment Screening** - providing details of the AA screening undertaken, and the conclusions.
3. **Stage I Conclusions and recommendations** - provides an outline of the findings from the screening process.

### 1.5 Data sources

This process and report rely on data and information from a broad and diverse range of sources. Some of the key sources of information that are generally viewed, consulted and/or utilised to inform the screening and AA processes are listed below. Others are consulted as required, and significant sources are cited in the reports.

Reference documents and Sources of information used to inform this process include:

- The Application
- National Parks & Wildlife (NPWS) protected site information [Link](#)
- NPWS conservation objectives [Link](#) and nature reserves [Link](#)
- NPWS Guidance documents [Link](#)
- Targeted scientific studies
- Primary research literature
- Grey literature, reviews and report documents
- Expert opinion
- Direct queries to applicants through licensing authority
- Foreshore Act, 1933 [Link](#)
- Ireland's Marine Atlas [Link](#)
- DHPLG Foreshore licencing database [Link](#)
- DAFM website [Link](#)
- EPA GeoHive [Link](#)
- EPA maps tool [Link](#)



- Status of EU Protected Habitats and Species in Ireland – Article 17 (Habitats & species) [Link](#)
- Birdwatch Ireland [Link](#)
- Bird status and trends Article 12 web tool - [Link](#)
- Marine Life Information Network [Link](#)
- EPA Catchments.ie dashboard [Link](#)
- Ordnance Survey of Ireland (OSI) [Link](#)
- National Biodiversity Data Centre [Link](#)
- European Environmental agency [Link](#)
- Appropriate Assessment Screening for Development Management. March 2021; Office of Planning Regulator (OPR, 2021). [Link](#)
- Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive [Link](#)
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. NPWS, 2009 – updated in 2010 with reference to Natura Impact Statement. (DEHLG, 2009) [Link](#)
- NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Edited by: Deirdre Lynn and Fionnuala O’Neill [Link](#)
- NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Edited by: Deirdre Lynn and Fionnuala O’Neill [Link](#)
- NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Edited by: Deirdre Lynn and Fionnuala O’Neill [Link](#)
- The European ecological network “Natura 2000” and the appropriate assessment for projects and plans under Article 6 (3) of the Habitats Directive. Nature Conservation, 23. Möckel, S., 2017. [Link](#).
- EC Article 6 - Managing and protecting Natura 2000 sites [Link](#)
- EC Management of Natura 2000 sites: Best Practice [Link](#)
- EC 2000. Managing Natura 2000 sites: The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC. Office for Official Publications of the European Communities, Luxembourg. [Link](#)
- EC 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. Office for Official Publications of the European Communities, Luxembourg. [Link](#)
- EC 2006. Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg. [Link](#)
- Federal Agency for Nature Conservation for the FFH impact assessment [Link](#)
- Marlin.ac.uk [Link](#)
- AMBI Sensitivity Scale [Link](#)
- MarESA [Link](#)
- Open Street Maps [Link](#)
- Google Earth and Bing aerial photography

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## 2 Appropriate Assessment Screening

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### 2.1 Assessment of Activities

The Marine Institute has been requested to review an application for foreshore activities (Error! Reference source not found.) to refurbish and repair the Rathmullan Pier (viaduct and pierhead) in Rathmullan, Co. Donegal.

This section identifies, in detail, the proposed activities to be considered as part of the screening exercise in this report, and then considers whether the proposed activities are likely to significantly affect the QIs of the Natura 2000 sites, in view of their Conservation Objectives (COs).

This is achieved by following the Screening Process as outlined in Section 2.5. If there is potential for the activities considered to have likely significant effects on the QI and their conservation features, they will be carried forward for full assessment. These activities are then considered in-combination with other likely disturbing activities.

### 2.2 Details of Proposed Foreshore Activities

The following methodology text has been synthesised from the applicant's supplied documentation. The proposed project is for the refurbishment and repair of the access viaduct in Rathmullan Pier in Co. Donegal. Rathmullan port is the only facility along the northern coast of Ireland that can provide sheltered berth for vessels up to 5,000 T and up to 100m in length with draught up to 8m. The pier is used year round by various users, including: the Irish Naval Service vessels; the ILV Granuaile; Vivier crab vessels; pelagic vessels, and it has been designated to permit landings and transshipment operations of fishery products for third country vessels. There is a seasonal ferry between Rathmullan and Buncrana, and the viaduct provides access to seasonal marina facilities for summer angling charters. The port is used for tourist and leisure industries. The site is located in a bivalve mollusc production area. The Swilly ferry will not be affected except for construction traffic on approach road. Fish landings will require alternative arrangements which is suggested to move to Buncrana.

The pierhead is accessed by a 120m viaduct. The current dimensions of the project site are as follows: the pierhead is 43m long; the viaduct deck slab is 152mm thick; and spans 1.35m between beams. A recent condition report (2021) confirmed the pier and the 'approach viaduct' section are in need of repair. The recommendation from the condition report highlighted that due to increasing deterioration of the pier structure (namely to the beams and decking on the viaduct) protection measures are needed to protect from possible falling concrete under the bridge along the beach section. The report noted that the previous recommendations from 2008 found that the viaduct was in a poor state of repair and a 3 T restriction was imposed until repair. The foreshore application proposes the refurbishment of the access viaduct and removal of the current 3 T weight limit.

The process will begin from the pierhead working back towards the shore - the decking will be removed and new bridge beams and concrete surface installed. This will be done in section by section to reduce the extent of protection platform and minimise possible damage to the new structure. The bridge will be power washed with clean water prior to concrete repairs. Rapid setting concrete and mortar products will be used for specific repair areas like supporting columns; these will be applied by hand. Water management provision will be in line with environmental requirements. Exposed steel

reinforcement will be cleaned by wet blasting and Nitoprime Zincrich Plus (anti-corrosion primer will be applied). The bridge surface will be rendered with Rosroc Renderoc ST05 (anti-carbonation coating), applied by hand.

Main deck beams will be sawn using diamond wire sawing and replaced with precast concrete beams with a crane. Concrete screed and upstand beams will be poured on top of the precast tee beams. Joints between tee beams will be sealed to prevent seepage of concrete.

The piles of the pier are shown to be driven to rock (from schematics). The existing kiosk, defective ladders and concrete handrails will be removed and replaced with new stainless steel kiosk, ladders and handrails. Structural repairs of defective concrete and steel will be done for both viaduct and pierhead. New ducts and services will be provided from embankment to the pierhead.

The viaduct portion of the project will involve the isolation of the water mains, street lighting and internet from the embankment. The services, existing handrails and store will be removed and reinstalled. The existing deck and primary beams will be removed and disposed. New pre-stressed beams and new concrete decking will be installed.

The pierhead will also be refurbished. Existing crash barriers and rails will be removed and replaced by new safety barriers. Existing concrete lamp posts at Pierhead will be removed and replaced with new galvanised steel lamp posts.

Scaffolding will fully encapsulate the viaduct to contain any debris from the demolition process. The working platform will be double boarded using plastic boards. Plastic sheeting (polythene 1000 gauge) will be installed to ensure all runoff from the hydro-demolition process will enter the mortar tubs (located at the center of each span of scaffold). Water captured in the mortar tubs will be pumped through a silt buster (to remove silt particles) and then discharged onto a tanker located at the entrance of the pier for removal to a licensed facility. The scaffold will be sheeted with monoplex to prevent any other debris from entering the lough. After each shift the scaffold will be cleaned and debris from cleaning will be disposed of in the onsite skip. The skip will be disposed of by a licensed skip company.

Normal working hours are expected. To comply with environmental requirements, all refueling of plant and equipment will be carried out in the site compound near the entrance to the viaduct. Two spill kits will be available on site and to hand during all refuelling. Plant machinery will not be permitted to enter the water of Lough Swilly at any time during the works. Appropriate biosecurity measures will be employed for any scaffolding poles protruding into the sea below the works area. An emergency boat will also be available and accessible from the scaffold at all times for the duration of the works.

A comprehensive list of potentially hazardous materials will be developed by the awarded contractor and any subcontractors. In the Safety & Health documentation the following potentially hazardous materials and processes, likely to be included in the work, were identified:

- Concrete, concrete additives and curing agents
- Removal of concrete
- Mortar repairs of concrete
- Saw-cutting of concrete
- Surface protection of concrete
- Hydro-chloric acid

- Site welding
- Fuel
- Lubricating oils (only environmentally friendly oils to be used on this site).
- Petrochemicals
- Construction chemicals, sealants, jointing materials, etc.

A detailed construction and environmental plan will be developed by the contractor on appointment.



Figure 1 Image of viaduct from 2021 Condition Report; Google Maps (2023)

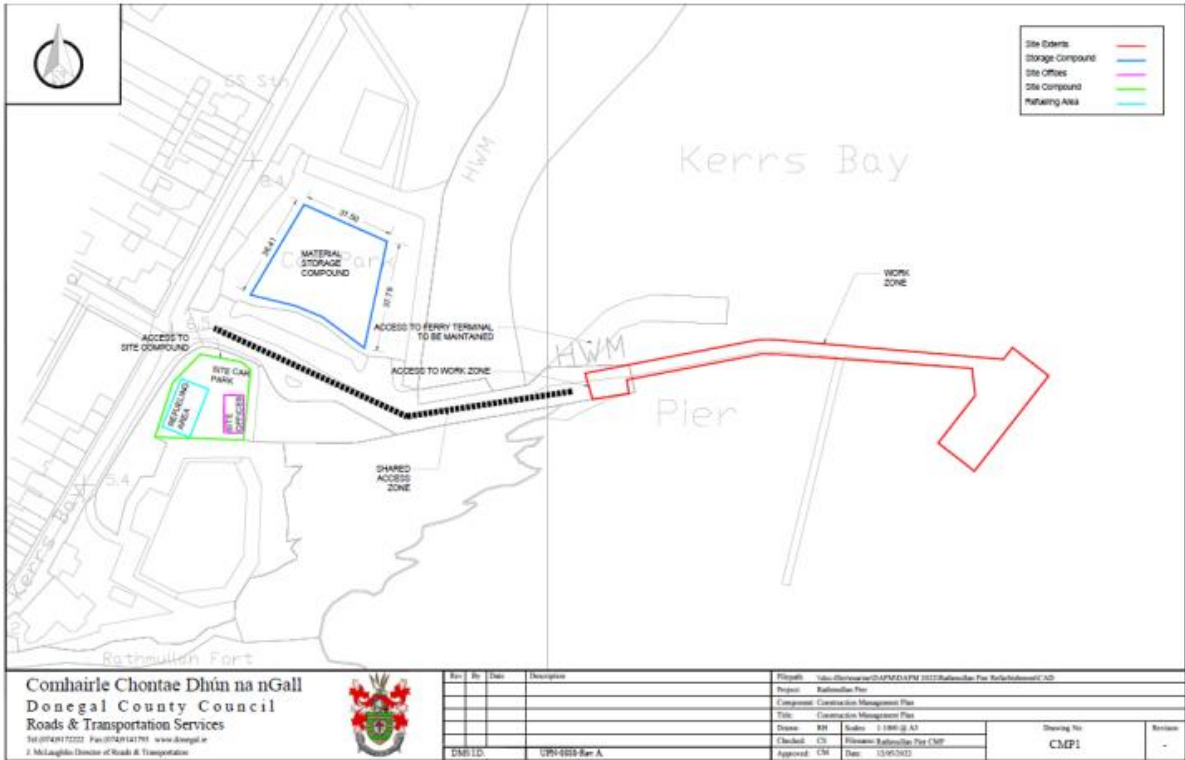


Figure 2 The proposed project site layout, project in red. Design Plan Map (from applicant documents).

### 2.3 Identification of Relevant Natura 2000 Sites and QIs

The proposed site overlaps with the Lough Swilly SAC () and Lough Swilly SPA(Error! Reference source not found.). A key consideration as to whether or not an activity is likely to significantly affect Natura 2000 QI is if there is a pathway of connectivity between the QI and the sources of potential impacts associated with the activity.

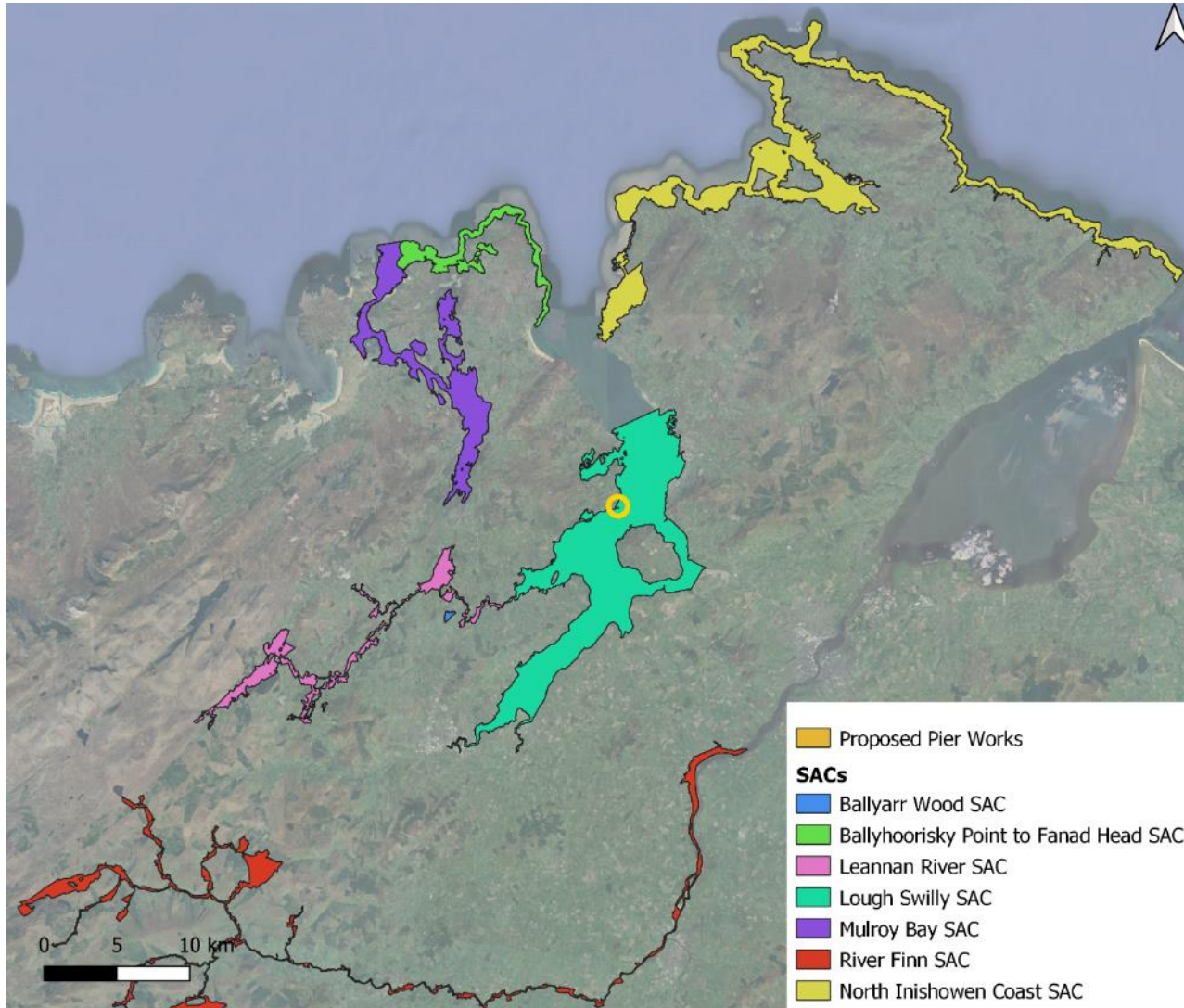


Figure 3 Natura 2000 SAC sites overlapping and adjacent to the application site (within 15km). Application site in yellow circle.



- |   |                          |
|---|--------------------------|
| Proposed Pier Works                     | Lough Fern SPA           |
| <b>SPAs</b>                             | Lough Foyle SPA          |
| Derryveagh And Glendowan Mountains SPA  | Lough Swilly SPA         |
| Falcarragh to Meenlaragh SPA            | Tory Island SPA          |
| Fanad Head SPA                          | Trawbreaga Bay SPA       |
| Greers Isle SPA                         | West Donegal Coast SPA   |
| Horn Head to Fanad Head SPA             | West Donegal Islands SPA |
| Inishbofin, Inishdoeey and Inishbeg SPA |                          |

Figure 4 Natura 2000 SPA sites adjacent to the application site (50km). Application site in yellow circle.

## 2.4 Details of Natura 2000 Sites

Special Areas of Conservation within 15 km of the proposed site are, conservatively, considered as within the zone of influence of the project. Similarly, SPAs within a 50 km radius are considered. A list of Natura 2000 sites (SACs and SPAs) that could be potentially affected by the proposed project have been identified and are listed in Table 2-1. The SPA identified within the 50 km zone of influence of the project are identified in Table 2-3, along with their QIs. Table 2-4 details the QIs and their screening outcomes.

Table 2-3

*Table 2-1 List and details of Natura sites adjacent to the area of the proposed activity.*

Natura site	Site code	SAC/SPA	Distance from Natura site at nearest point (km)	Reference
Lough Swilly SAC	002287	SAC	0	<a href="#">Link</a>
Mulroy Bay SAC	002159	SAC	10.1	<a href="#">Link</a>
Leannan River SAC	002176	SAC	10.2	<a href="#">Link</a>
North Inishowen Coast SAC	002012	SAC	11.3	<a href="#">Link</a>
Ballyarr Wood SAC	000116	SAC	13.3	<a href="#">Link</a>
Ballyhoorisky Point to Fanad Head SAC	001975	SAC	13.6	<a href="#">Link</a>
River Finn SAC	002301	SAC	17.3	<a href="#">Link</a>
Lough Swilly SPA	004075	SPA	0	<a href="#">Link</a>
Horn Head to Fanad Head SPA	004194	SPA	9.7	<a href="#">Link</a>
Lough Fern SPA	004060	SPA	11.7	<a href="#">Link</a>
Greers Isle SPA	004082	SPA	17.3	<a href="#">Link</a>
Lough Foyle SPA	004087	SPA	17.5	<a href="#">Link</a>
Fanad Head SPA	004148	SPA	17.5	<a href="#">Link</a>
Derryveagh and Glendown Mountains SPA	004039	SPA	18.6	<a href="#">Link</a>
Trawbreaga SPA	004034	SPA	23.8	<a href="#">Link</a>
Falcarragh to Meenlaragh SPA	004149	SPA	35.9	<a href="#">Link</a>
Inishbofin, inishdooley and Inishbeg SPA	004083	SPA	41	<a href="#">Link</a>
Tory Island SPA	004073	SPA	45.4	<a href="#">Link</a>
West Donegal Coast SPA	004150	SPA	48.8	<a href="#">Link</a>
West Donegal Islands SPA	004230	SPA	50.4	<a href="#">Link</a>

[Lough Swilly SAC \[002287\]](#)



This large site, situated in the northern part of Co. Donegal, comprises the inner part of Lough Swilly. It extends from below Letterkenny to just north of Buncrana. Lough Swilly is a long sea lough, cutting through a variety of metamorphic rocks on the west side of Inishowen. The main rivers flowing into the site are the Swilly, Lennan and Crana. At low tide, extensive sand and mudflats are exposed, especially at the mouths of the Swilly and Lennan rivers. The site is estuarine in character, with shallow water and intertidal sand and mudflats being the dominant habitats.

The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels – these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Lennan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide - both estuaries and sand/mud flats are listed on Annex I of the E.U. Habitats Directive. Other habitats represented in the site are salt marshes, lagoons (at Inch Lough and Blanket Nook), rivers and streams, sand and shingle beaches, lowland wet and dry grasslands, drainage ditches, reedbeds and scrub. Inch Lough, whilst artificial in origin, is one of the largest and best examples of a shallow, low salinity lagoon in the country; it supports what is probably the largest population in the country of the Red-listed charophyte *Chara canescens*. A small sandy island, used by nesting terns, swans and gulls, occurs in the southern part of the lagoon. This large site, situated in the northern part of Co. Donegal, comprises the inner part of Lough Swilly. It extends from below Letterkenny to just north of Buncrana. Lough Swilly is a long sea lough, cutting through a variety of metamorphic rocks on the west side of Inishowen. The main rivers flowing into the site are the Swilly, Lennan and Crana. At low tide, extensive sand and mudflats are exposed, especially at the mouths of the Swilly and Lennan rivers. The site is estuarine in character, with shallow water and intertidal sand and mudflats being the dominant habitats

This site is of conservation importance as it contains good examples of at least five habitats listed on Annex I of the E.U. Habitats Directive (estuaries, lagoons, Atlantic salt meadows, *Molinia* meadows, old oak woods) and supports a population of Otter. In addition, it is of high ornithological importance for wintering waterfowl, with 16 species occurring regularly in numbers of national importance, plus three species occurring within the site and on adjacent polders in numbers of international importance<sup>9</sup>.

## 2.5 Screening of QIs

A key consideration as to whether or not an activity is likely to significantly affect Natura 2000 QIs, is if there is a pathway of connectivity between the QI and the sources of potential impacts associated with the activity. The QIs could be at risk of effects where a Source-Pathway-Receptor (S-P-R) link exists between the proposed activities and the conservation features of the site, and the risk cannot be dismissed.

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<sup>9</sup> <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY002287.pdf>

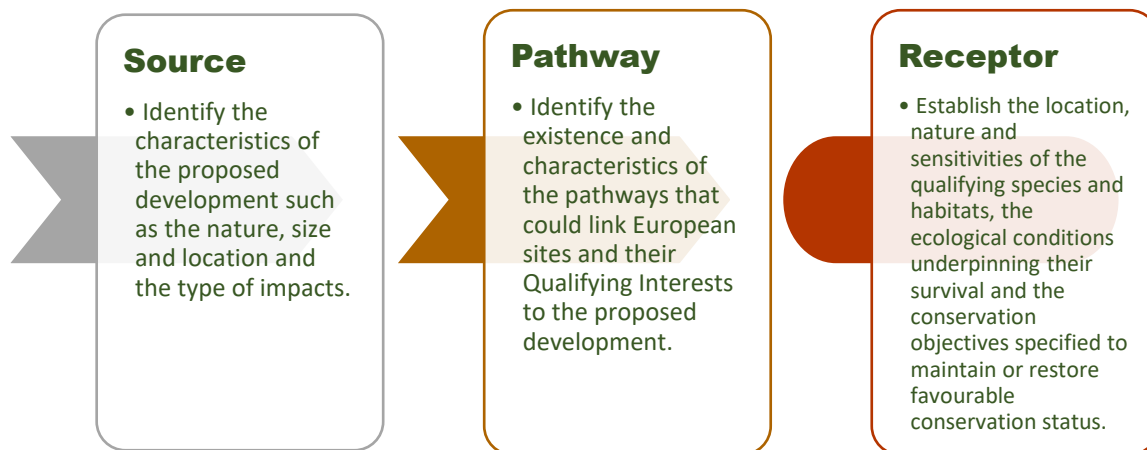


Figure 5 Source-Pathway-Receptor (S-P-R) link diagram.

The S-P-R model considers potential ecological links between the proposed activity and the qualifying interest of Natura 2000 site. The link can be direct and facilitated by terrestrial, aquatic and airborne transfer of a particular pressure, or the nature and location of the activity may be indirect and interact at a functional level, and impact on behaviour or resource acquisition of a qualifying interest (OPR 2021).

The screening for the presence of a S-P-R link and any potential significant effects of the proposed aquaculture activities on the QIs of the Natura will be presented in this Section. A screening assessment is an initial evaluation of the existence of S-P-R links between the proposed activities and any likely significant effects on the QIs. In this assessment, screening of the QIs against the proposed activities is, in the first instance, considered on the basis of direct spatial overlap. Indirect effects are also considered whereby the likely impact of the activity on behaviour or resources required by mobile species (mammals and birds, among others) is considered. Also considered are indirect effects facilitated by hydrological or other potential links (e.g. foraging range).

Where there is spatial overlap and reasonable potential for likely significant effects on QIs to arise, a full assessment (Stage 2) is warranted. In the instance where there is no spatial overlap between an activity and a QI, and no likely direct or indirect interactions apparent, the activity, therefore, may be screened out. If there is marginal spatial overlap but no reasonable potential for significant effects on QIs to arise then the activity may also be screened out.

The QIs of the adjacent Natura 2000 sites listed above could be at risk of effects where a S-P-R link exists between the proposed activities and the QIs of the site. The screening for the presence of a S-P-R link and any likely significant effects of the proposed activities on the QIs of adjacent SACs and SPAs is presented here. The screening is undertaken without the inclusion of any mitigation measures.

## 2.6 Screening of QIs of Adjacent Natura 2000 Sites

The screening of adjacent Natura sites is carried to determine if the proposed activity is likely to impact on the QIs of these sites. It is primarily based upon indirect links between the proposed activity and those QIs. Guidance<sup>10</sup> has indicated that a screening exercise might consider the likely interactions between the QIs of Natura 2000 sites within a standard distance of 15 km from the proposed activity.

<sup>10</sup> <https://www.npws.ie/protected-sites/guidance-appropriate-assessment-planning-authorities>

While this guide value of 15 km can inform for habitats and also, for species with defined ranges, they may not apply to migratory species (e.g. some fishes or mammals) or those with large foraging ranges (e.g. birds and mammals). Such species may interact with the proposed activity as a result of the structures along their migratory route or impacting on their foraging behaviour. It is important such species are identified and should be considered on a case-by-case basis. Therefore, all QIs within SPAs within 50 km of the proposed development site are considered in the screening.

Screening outcomes in relation to the proposed activities are outlined in Table 2-2 highlighting the QIs and conservation objectives for each adjacent SAC Natura 2000 sites and Table 2-4 outlines the QIs of the SPA Natura 2000 sites. Where Annex I Habitats or Annex II Species are in an SAC but are not classified as Qualifying Interests, they are not designated a Conservation Objective but are included in the table for thoroughness.

Table 2-2 Adjacent SAC Natura 2000 sites to the area of the proposed activity, with their QIs and CFs, objectives, and screening outcomes.

Natura 2000 site	QIs and Conservation Features	Objective	Screening Outcome
Lough Swilly SAC (002287)	Estuaries [1130]	To maintain the favourable conservation condition of Estuaries	The proposed project overlaps with a portion of the Lough Swilly SAC.  As such, <b>Estuaries [1130] are carried forward for a Stage 2 Appropriate Assessment.</b>
	Coastal lagoons [1150]	To restore the favourable conservation condition of Coastal lagoons	The proposed project overlaps with a portion of the Lough Swilly SAC.  Coastal lagoons [1150] - targets for this QI are primarily focused on the protection of variables in Blanket Nook, a coastal lagoon approximately 8 km from the project site. The other coastal lagoon site is approximately 5 km from the project site.
	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330]	To restore the favourable conservation condition of Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> )	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330] – targets for this QI are focused on the protection of variables of habitat, physical structure, vegetation structures, and vegetation composition. The closest recorded Atlantic salt meadow is approximately 3 km from the project site.
	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	To restore the favourable conservation condition of Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] and Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410] are both terrestrial QIs with no direct hydrological or geological link to the project site.
	Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410]		The footprint of this project is 0.1228 ha. Construction methodologies ensure there is no debris spread from the site. The effects from construction and operation of the project are very

			local, the likelihood of interaction between these QIs and Annex I Habitats and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats and therefore <b>no significant effects posed</b> by the construction activities or operation on these distant or terrestrial QIs of this Natura 2000 SAC site.
	<i>Lutra lutra</i> (Otter) [1355]	To restore the favourable conservation condition of <i>Lutra lutra</i> (Otter)	Otters tend to forage within 80 m of the shoreline. The proposed project directly overlaps with marine otter habitat in the Lough Swilly SAC. <b>Therefore, otter is carried forward to Stage 2 Appropriate Assessment.</b>
Mulroy Bay SAC (002159)	Large shallow inlets and bays [1160]	To maintain the favourable conservation condition of Large shallow inlets and bays	Mulroy Bay SAC is located approximately 10.1 km from the closest boundary of the proposed foreshore activities.
	Reefs [1170]	To maintain the favourable conservation condition of Reefs	As the size of this project is 0.1228 ha and the effects from construction and operation of the project are very local, the likelihood of interaction between these QIs and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats and therefore <b>no significant effects posed</b> by the construction activities or operation on the QIs of this Natura 2000 SAC site.
	Mudflats and sandflats not covered by seawater at low tide [1140]	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Sheephaven SAC	
	<i>Lutra lutra</i> (Otter) [1355]	To restore the favourable conservation condition of <i>Lutra lutra</i> (Otter)	Otters tend to forage within 80 m of the shoreline. As the boundary of this SAC is >10 km from the proposed project, there is no spatial overlap nor is there likely to be interactions nor significant affect between the proposed project and the Annex II Species. <b>Otter is screened in for the Lough Swilly SAC so will be considered.</b>
Leannan River SAC (002176)	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110]	To restore the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	Leenan River SAC is located approximately 10.2 km from the closest boundary of the proposed foreshore activities.
	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	To restore the favourable conservation condition of Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i>	As the size of this project is 0.1228 ha and the effects from construction and operation of the project are very local, the likelihood of interaction between these freshwater and terrestrial QIs and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats and therefore <b>no significant effects posed</b> by the construction activities or operation on the QIs of this Natura 2000 SAC site.

	<i>Najas flexilis</i> (Slender Naiad) [1833]	To restore the favourable conservation condition of <i>Najas flexilis</i> (Slender Naiad)	
	<i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]	To restore the favourable conservation condition of <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel)	<p>To achieve the conservation objective for Freshwater Pearl Mussel in Leannan River SAC, attributes and targets are concerned with impacts made to the mussels' freshwater habitat.</p> <p>The footprint of this project is 0.1228 ha. The nearest boundary of the Freshwater Pearl Mussel catchment for this SAC is approximately 8.6 km from the project site. Effects from construction and operation of the project are very local, the likelihood of interaction between the salmonids (which can swim and avoid around structures) and the project are minimal. It is considered that there is no clear "source-path-receptor" interactions with these Annex II Species and therefore <b>no significant effects posed</b> by the construction activities or operation on the QIs of this Natura 2000 SAC site.</p>
	<i>Salmo salar</i> (Salmon) [1106]	To restore the favourable conservation condition of <i>Salmo salar</i> (Salmon)	<p>To achieve the conservation objective for Salmon in Leannan River SAC, attributes and targets are concerned with impacts made to the freshwater system in the anadromous life cycle. These include:</p> <ul style="list-style-type: none"> <li>• no restriction of access to spawning areas or upstream migration</li> <li>• exceed conservation limit</li> <li>• maintenance/exceedance of fry abundance</li> <li>• no decline in out-migrating smolt abundance</li> <li>• no decline in number and distribution of spawning redds (due to anthropogenic causes)</li> <li>• have Q4 water quality (WFD status good, unpolluted waters).</li> </ul> <p>The footprint of this project is 0.1228 ha and the effects from construction and operation of the project are very local. The COs for this QI are primarily freshwater related, and salmon can swim to avoid structures in the marine environment. The likelihood of interaction between the salmon and the project are minimal. It is considered that there is no clear "source-path-receptor" interactions with these Annex I species and therefore <b>no significant effects posed</b></p>

			by the construction activities or operation on this QI.
	<i>Lutra lutra</i> (Otter) [1355]	To maintain the favourable conservation condition of <i>Lutra lutra</i> (Otter)	Otters tend to forage within 80 m of the shoreline. As the boundary of this SAC is >10 km from the proposed project, there is no spatial overlap nor is there likely to be interactions nor significant affect between the proposed project and the Annex II Species. However, <b>Otter is screened in for the Lough Swilly SAC so will be considered.</b>
North Inishowen Coast SAC (002012)	Mudflats and sandflats not covered by seawater at low tide [1140]	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide	The proposed project does not overlap with the North Inishowen Coast SAC. The closest of these QIs is 11.3 km from the proposed project.  As the size of this project is 0.1228 ha and the effects from construction and operation of the project are very local, the likelihood of interaction between the predominantly terrestrial QIs and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats. Therefore, <b>no significant effects posed</b> by the construction activities or operation on the QIs of this Natura 2000 SAC site, so can be screened out.
	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation (grey dunes)	
	Machairs (* in Ireland) [21A0]	To restore the favourable conservation condition of Machairs (* in Ireland)	
	Perennial vegetation of stony banks [1220]	To maintain the favourable conservation condition of Perennial vegetation of stony banks	
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coaststic and Baltic coasts [1230]	
	European dry heaths [4030]	To maintain the favourable conservation condition of European dry heaths	
	<i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014]	To maintain the favourable conservation condition of <i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail)	The Narrow mouthed Whole Snail has been recorded >11.3 km from the proposed project site. Considering the small footprint, and that the effects from the project are very local, the likelihood of interaction between this QI and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with the <b>Narrow-mouthed Whorl Snail and can, therefore, be screened out.</b>

	<i>Lutra lutra</i> (Otter) [1355]	To maintain the favourable conservation condition of <i>Lutra lutra</i> (Otter)	Otters tend to forage within 80 m of the shoreline. As the boundary of this SAC is >10 km from the proposed project, there is no spatial overlap nor is there likely to be interactions nor significant affect between the proposed project and the Annex II Species. However, <b>Otter is screened in for the Lough Swilly SAC so will be considered.</b>
<b>Ballyarr Wood SAC (000116)</b>	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	To maintain the favourable conservation condition of Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	Ballyarr Wood SAC is located approximately 13.3 km from the closest boundary of the proposed foreshore activities.  As the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this terrestrial and the project are minimal, it is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats and therefore <b>no significant effects posed</b> by the construction activities or operation on the QIs of this Natura 2000 SAC site.
<b>Ballyhoorisky Point to Fanad Head SAC (001975)</b>	Perennial vegetation of stony banks [1220]	To restore the favourable conservation condition of Perennial vegetation of stony banks	The Ballyhoorisky Point to Fanad Head SAC is located approximately 13.6 km from the closest boundary of the proposed foreshore activities.  As the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, therefore the likelihood of interaction between these predominantly terrestrial and freshwater QIs and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats or Annex II Species and therefore <b>no significant effects posed</b> by the construction activities on the QIs of this Natura 2000 SAC site.
	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts	
	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	To maintain the favourable conservation condition of Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i>	
	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140]	To maintain the favourable conservation condition of Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	
	<i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014]	To maintain the favourable conservation condition of <i>Vertigo</i>	

		<i>angustior</i> (Narrow-mouthed Whorl Snail)	
	<i>Najas flexilis</i> (Slender Naiad) [1833]	To maintain the favourable conservation condition of <i>Najas flexilis</i> (Slender Naiad)	
River Finn SAC (002301)	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110]	To restore the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	River Finn SAC is located approximately 17.3 km from the closest boundary of the proposed foreshore activities.  As the size of this project is 0.1228 ha and the effects from construction and operation of the project are very local, the likelihood of interaction between these QIs and the project are minimal. It is considered that there are not clear “source-path-receptor” interactions with these Annex I Habitats and therefore <b>no significant effects posed</b> by the construction activities or operation on the QIs of this Natura 2000 SAC site.
	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	To restore the favourable conservation condition of Northern Atlantic wet heaths with <i>Erica tetralix</i>	
	Blanket bogs (*if active bogs) [7130]	To restore the favourable conservation condition of Blanket bogs (*if active bog)	
	Transition mires and quaking bogs [7140]	To restore the favourable conservation condition of Transition mires and quaking bogs	
	<i>Salmo salar</i> (Salmon) [1106]	To restore the favourable conservation condition of <i>Salmo salar</i> (Salmon)	To achieve the conservation objective for Salmon in River Finn SAC, attributes and targets are concerned with impacts made to the freshwater system in the anadromous life cycle. These include: <ul style="list-style-type: none"> <li>• no restriction of access to spawning areas or upstream migration</li> <li>• exceed conservation limit</li> <li>• maintenance/exceedance of fry abundance</li> <li>• no decline in out-migrating smolt abundance</li> <li>• no decline in number and distribution of spawning redds (due to anthropogenic causes)</li> <li>• have Q4 water quality (WFD status good, unpolluted waters).</li> </ul> The footprint of this project is 0.1228 ha and the effects from construction and operation of the project are very local. The COs for this QI are primarily freshwater related, and salmon can swim to avoid structures in the marine environment. The likelihood of interaction between the salmon and the project are minimal. It is considered that there is no clear “source-path-receptor” interactions with these Annex I



			species and therefore <b>no significant effects posed</b> by the construction activities or operation on this QI.
	<i>Lutra lutra</i> (Otter) [1355]	To maintain the favourable conservation condition of <i>Lutra lutra</i> (Otter)	Otters tend to forage within 80 m of the shoreline. As the boundary of this SAC is >10 km from the proposed project, there is no spatial overlap nor is there likely to be interactions nor significant affect between the proposed project and the Annex II Species. However, <b>Otter is screened in for the Lough Swilly SAC so will be considered.</b>

The SPA identified within the 50 km zone of influence of the project are identified in Table 2-3, along with their QIs. Table 2-4 details the QIs and their screening outcomes.

Table 2-3 SPAs within 50Km of the project and their Qualifying interests.

Related SPA (site code)	Qualifying Interest
Lough Swilly SPA (004075)	Great Crested Grebe ( <i>Podiceps cristatus</i> ) [A005] Grey Heron ( <i>Ardea cinerea</i> ) [A028] Whooper Swan ( <i>Cygnus cygnus</i> ) [A038] Greylag Goose ( <i>Anser anser</i> ) [A043] Shelduck ( <i>Tadorna tadorna</i> ) [A048] Wigeon ( <i>Anas penelope</i> ) [A050] Teal ( <i>Anas crecca</i> ) [A052] Mallard ( <i>Anas platyrhynchos</i> ) [A053] Shoveler ( <i>Anas clypeata</i> ) [A056] Scaup ( <i>Aythya marila</i> ) [A062] Goldeneye ( <i>Bucephala clangula</i> ) [A067] Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069] Coot ( <i>Fulica atra</i> ) [A125] Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130] Knot ( <i>Calidris canutus</i> ) [A143] Dunlin ( <i>Calidris alpina</i> ) [A149] Curlew ( <i>Numenius arquata</i> ) [A160] Redshank ( <i>Tringa totanus</i> ) [A162] Greenshank ( <i>Tringa nebularia</i> ) [A164] Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179] Common Gull ( <i>Larus canus</i> ) [A182] Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191] Common Tern ( <i>Sterna hirundo</i> ) [A193] Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395] Wetland and Waterbirds [A999]
Horn Head to Fanad Head SPA (004194)	Fulmar ( <i>Fulmarus glacialis</i> ) [A009] Cormorant ( <i>Phalacrocorax carbo</i> ) [A017] Shag ( <i>Phalacrocorax aristotelis</i> ) [A018] Barnacle Goose ( <i>Branta leucopsis</i> ) [A045] Peregrine ( <i>Falco peregrinus</i> ) [A103] Kittiwake ( <i>Rissa tridactyla</i> ) [A188]

	<p>Guillemot (<i>Uria aalge</i>) [A199]  Razorbill (<i>Alca torda</i>) [A200]  Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]  Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]</p>
Lough Fern SPA (004060)	<p>Pochard (<i>Aythya ferina</i>) [A059]  Wetland and Waterbirds [A999]</p>
Greers Isle SPA (004082)	<p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]  Common Gull (<i>Larus canus</i>) [A182]  Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]</p>
Lough Foyle SPA (004087)	<p>Red-throated Diver (<i>Gavia stellata</i>) [A001]  Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]  Bewick's Swan (<i>Cygnus columbianus bewickii</i>) [A037]  Whooper Swan (<i>Cygnus cygnus</i>) [A038]  Greylag Goose (<i>Anser anser</i>) [A043]  Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]  Shelduck (<i>Tadorna tadorna</i>) [A048]  Wigeon (<i>Anas penelope</i>) [A050]  Teal (<i>Anas crecca</i>) [A052]  Mallard (<i>Anas platyrhynchos</i>) [A053]  Eider (<i>Somateria mollissima</i>) [A063]  Red-breasted Merganser (<i>Mergus serrator</i>) [A069]  Oystercatcher (<i>Haematopus ostralegus</i>) [A130]  Golden Plover (<i>Pluvialis apricaria</i>) [A140]  Lapwing (<i>Vanellus vanellus</i>) [A142]  Knot (<i>Calidris canutus</i>) [A143]  Dunlin (<i>Calidris alpina</i>) [A149]  Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]  Curlew (<i>Numenius arquata</i>) [A160]  Redshank (<i>Tringa totanus</i>) [A162]  Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]  Common Gull (<i>Larus canus</i>) [A182]  Herring Gull (<i>Larus argentatus</i>) [A184]  Wetland and Waterbirds [A999]</p>
Fanad Head SPA (004148)	<p>Corncrake (<i>Crex crex</i>) [A122]</p>
Derryveagh and Glendowan Mountains SPA (004039)	<p>Dunlin (<i>Calidris alpina schinzii</i>) [A466]  Golden Plover (<i>Pluvialis apricaria</i>) [A140]  Merlin (<i>Falco columbarius</i>) [A098]  Peregrine (<i>Falco peregrinus</i>) [A103]  Red-throated Diver (<i>Gavia stellata</i>) [A001]</p>
Trawbreaga Bay SPA (004034)	<p>Barnacle Goose (<i>Branta leucopsis</i>) [A045]  Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]  Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]  Wetland and Waterbirds [A999]</p>
Falcarragh to Meenlaragh SPA (004149)	<p>Corncrake (<i>Crex crex</i>) [A122]</p>
Inishbofin, Inishdooy and Inishbeg SPA (004083)	<p>Barnacle Goose (<i>Branta leucopsis</i>) [A045]  Corncrake (<i>Crex crex</i>) [A122]  Common Gull (<i>Larus canus</i>) [A182]  Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]  Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p>

Tory Island SPA (004073)	Fulmar ( <i>Fulmarus glacialis</i> ) [A009] Corncrake ( <i>Crex crex</i> ) [A122] Razorbill ( <i>Alca torda</i> ) [A200] Puffin ( <i>Fratercula arctica</i> ) [A204]
West Donegal Coast SPA (004150)	Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346] Cormorant ( <i>Phalacrocorax carbo</i> ) [A017] Fulmar ( <i>Fulmarus glacialis</i> ) [A009] Herring Gull ( <i>Larus argentatus</i> ) [A184] Kittiwake ( <i>Rissa tridactyla</i> ) [A188] Peregrine ( <i>Falco peregrinus</i> ) [A103] Razorbill ( <i>Alca torda</i> ) [A200] Shag ( <i>Phalacrocorax aristotelis</i> ) [A018]
West Donegal Islands SPA (004230)	Barnacle Goose ( <i>Branta leucopsis</i> ) [A045] Common Gull ( <i>Larus canus</i> ) [A182] Corncrake ( <i>Crex crex</i> ) [A122] Herring Gull ( <i>Larus argentatus</i> ) [A184] Shag ( <i>Phalacrocorax aristotelis</i> ) [A018]

Table 2-4 Adjacent SPA Natura 2000 sites with QIs and screening outcomes.

Qualifying Interest	Conservation Objectives	Screening Outcome <sup>11, 12</sup>
Barnacle Goose ( <i>Branta leucopsis</i> ) [A045]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>Inishtrahull SPA (004100)</li> <li>Trawbreaga Bay SPA (004034)</li> <li>West Donegal Islands SPA (004230)</li> </ul>	Barnacle Goose is a winter visitor which primarily grazes on grasses and sedges on coastal pastures. They do not breed in Ireland. As the project site is 9.7 km from the closest SPA for this species, the footprint of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential breeding, feeding or habitat and the proposed site, <b>Barnacle Goose can therefore be screened out.</b>
Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> </ul>	Bar-tailed Godwit is a winter visitor that feeds along the tidal edge, or in shallow waters (up to 15 cm deep). It does not breed in Ireland. They are largely confined to estuaries, with small numbers recorded using non-estuarine coastline. As the project site is 17.5 km from the Lough Foyle SPA, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential breeding, feeding or habitat and the proposed site, <b>Bar-tailed Godwit can be screened out.</b>
Bewick's Swan ( <i>Cygnus columbianus bewickii</i> ) [A037]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> </ul>	Bewick's Swan is a rare winter visitor from Siberia from November to March. They feed on plant material and forage in water or flooded pastures. The project site is 17.5 km from the Lough Foyle SPA, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential breeding, feeding or wintering habitat and the proposed site, <b>Bewick's Swan can be screened out.</b>
Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179]	<ul style="list-style-type: none"> <li>Greers Isle SPA (004082)</li> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	Black-headed Gulls are a resident species in Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Black-headed Gull is carried forward for Stage 2 Assessment.</b>

<sup>11</sup> The following sources of information have been used throughout this table:

- <https://birdwatchireland.ie/>
- <https://www.wildlifetrusts.org>
- Woodward, I., Thaxter, C.B., Owen, E. & Cook, A.S.C.P. 2019. Desk-based revision of seabird foraging ranges used for HRA screening, Report of work carried out by the British Trust for Ornithology on behalf of NIRAS and The Crown Estate, ISBN 978-1-912642-12-0.
- Thaxter *et al* 2012 <https://www.sciencedirect.com/science/article/pii/S0006320711004721>
- Fijn *et al* 2017 <https://doi.org/10.1016/j.seares.2016.11.005>

<sup>12</sup> 'Max' is the maximum foraging range from all studies (reviewed in Woodward *et al* 2019); 'mean max' is the maximum range reported for each colony, averaged across all colonies; 'mean' is the mean foraging range reported for each colony, averaged across all colonies.

Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>Trawbreaga Bay SPA (004034)</li> <li>West Donegal Coast SPA (004150)</li> </ul>	A resident species to Ireland, Chough prefer undisturbed cliffs for nesting. Most pairs stay near breeding sites all year round. They prefer coastal grassland for feeding. The Horn Head to Fanad Head SPA hosts an internationally important population of Chough. A 2002/03 survey recorded 29 breeding pairs on the sea cliffs, which are used for breeding and roosting sites. The land adjacent to the cliff tops are used for feeding habitat. Other feeding/flocking habitats were located at Black Burrow near Dooros Point and at Melmore Lough on the Tranarossan Peninsula. The foraging ranges of Chough can be up to 30 km from their roosting sites feeding mostly on terrestrial insects, worms, terrestrial invertebrates in soil. The project site is 9.7 km from the closest SPA for this species, but the habitat for breeding and flocking activities are not present at the proposed site. The small project footprint and localised effects mean the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap of the project and the breeding or flocking activities, <b>Chough are screened out</b>
Common Gull ( <i>Larus canus</i> ) [A182]	<ul style="list-style-type: none"> <li>Greens Isle SPA (004082)</li> <li>Inishtrahull SPA (004100)</li> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> <li>West Donegal Islands SPA (004230)</li> </ul>	Common Gull are a local breeding species. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Common Gull is carried forward for Stage 2 Assessment.</b>
Common Tern ( <i>Sterna hirundo</i> ) [A193]	<ul style="list-style-type: none"> <li>Lough Swilly SPA (004075)</li> </ul>	Common Tern are a summer visitor to Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Common Tern is carried forward for Stage 2 Assessment.</b>
Coot ( <i>Fulica atra</i> ) [A125]	<ul style="list-style-type: none"> <li>Lough Swilly SPA (004075)</li> </ul>	Coot, an omnivorous bird feeding on plants, insects and fish, have been recorded foraging in the coastal lagoons of the Lough Swilly SPA. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Coot is carried forward for Stage 2 Assessment.</b>
Cormorant ( <i>Phalacrocorax carbo</i> ) [A017]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>West Donegal Coast SPA (004150)</li> </ul>	There is a resident population of Cormorant which breeds in colonies mainly around the coast, with some birds breeding inland. They winter at sea and inland. They feed solely on fish. The project site is 9.7 km from the closest SPA for this species. The footprint of this project is 0.1228 ha, and the effects from construction and operation of the project are very local. The likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Cormorant can be screened out.</b>
Corncrake ( <i>Crex crex</i> ) [A122]	<ul style="list-style-type: none"> <li>Fanad Head SPA (004148)</li> <li>West Donegal Islands SPA (004230)</li> </ul>	Corncrake are a summer visitor, which feed on insects, slugs, snails, earthworms, grasses and sedges. They nest on the ground in tall vegetation. The project site is 17.5 km from the closest SPA for this species. The effects from construction and operation of the project are very local, and this species is mainly terrestrial. The likelihood of interaction between this QI and the project are minimal. As there is no likely

		significant overlap with potential feeding or breeding habitats and the site, <b>Corncrake can therefore be screened out.</b>
Curlew ( <i>Numenius arquata</i> ) [A160]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	Curlew are a winter visitor in Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Curlew is carried forward for Stage 2 Assessment.</b>
Dunlin ( <i>Calidris alpina schinzii</i> ) [A466]	<ul style="list-style-type: none"> <li>Derryveagh and Glendowan Mountains SPA (004039)</li> </ul>	Dunlin are a summer (from NW Africa/SW Europe) and winter (from Scandinavia to Siberia) visitor which feed predominantly on small invertebrates of estuarine mudflats (polychaete worms and gastropods). As there is no likely significant overlap with potential feeding or breeding habitats and the site (~km from the project site), <b>Dunlin (<i>Calidris alpina schinzii</i>) can be screened out.</b>
Dunlin ( <i>Calidris alpina</i> ) [A149]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	As the project is located within an SPA for Dunlin ( <i>Calidris alpina</i> ) a conservative approach is taken for screening, <b>the Dunlin (<i>Calidris alpina</i>) is carried forward for Stage 2 Assessment.</b>
Eider ( <i>Somateria mollissima</i> ) [A063]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> </ul>	Eider are a resident duck along rocky coasts of Ireland. They feed by diving in water to feed on molluscs and crustaceans. Eider nest on offshore islets. They winter on shallow, inshore coastal waters, and near estuary mouths. The project site is 17.5 km from Lough Foyle SPA. The small project footprint and localised effects mean the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Eider can be screened out.</b>
Fulmar ( <i>Fulmarus glacialis</i> ) [A009]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>West Donegal Coast SPA (004150)</li> </ul>	Fulmar are a resident along all Irish coasts, and feed on a variety of food, including fish and crustaceans. Mainly breeds on sea cliffs, but will nest on level ground, on buildings and in burrows and crevasses. Fulmar is considered to have a low sensitivity to disturbance from boat traffic. Fulmars have a high nocturnal activity and could be disturbed by light at night-time. The project site is 9.7 km from the closest SPA for this species. The small project footprint and localised effects mean the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding, breeding or winter habitat and the site, <b>Fulmar are screened out.</b>
Golden Plover ( <i>Pluvialis apricaria</i> ) [A140]	<ul style="list-style-type: none"> <li>Derryveagh and Glendowan Mountains SPA (004039)</li> <li>Lough Foyle SPA (004087)</li> </ul>	Golden Plover are a visitor throughout the year, but mostly in October and February. They feed on a variety of soil and surface-living invertebrates (beetles and earthworms) but also on plants (berries, seeds and grasses). They breed on heather moors, blanket bogs & acidic grasslands. Breeding populations of Golden Plover can be found in the boglands of Derryveah and Glendowan Mountains SPA and the western shores of Lough Foyle SPA. The project site is 17.5 km from the closest SPA for this species. Considering their terrestrial nature and distance between the SAC and the project, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>the Golden Plover can be screened out.</b>

Goldeneye ( <i>Bucephala clangula</i> ) [A067]	<ul style="list-style-type: none"> <li>Lough Swilly SPA (004075)</li> </ul>	Goldeneye are winter visitors which prefer to reside on coastal estuaries and inland lakes. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Goldeneye is carried forward for Stage 2 Assessment.</b>
Great Crested Grebe ( <i>Podiceps cristatus</i> ) [A005]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	The Great Crested Grebe is a resident species, though is considered a wintering species for Lough Swilly along all Irish coasts, feeding mainly on fish. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Great Crested Grebe is carried forward for Stage 2 Assessment.</b>
Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>Lough Swilly SPA (004075)</li> </ul>	Greenland White-fronted Geese are a scarce winter visitor to wetlands. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Greenland White-fronted Goose is carried forward for Stage 2 Assessment.</b>
Greenshank ( <i>Tringa nebularia</i> ) [A164]	<ul style="list-style-type: none"> <li>Lough Swilly SPA (004075)</li> </ul>	Greenshank are mainly an estuarine winter visitor. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>the Greenshank can be screened out.</b>
Grey Heron ( <i>Ardea cinerea</i> ) [A028]	<ul style="list-style-type: none"> <li>Lough Swilly SPA (004075)</li> </ul>	The Grey Heron are a resident in wetlands, estuaries and along rivers in Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Grey Heron is carried forward for Stage 2 Assessment.</b>
Greylag Goose ( <i>Anser anser</i> ) [A043]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	The Greylag Goose is a winter migrant to Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Greylag Goose is carried forward for Stage 2 Assessment.</b>
Guillemot ( <i>Uria aalge</i> ) [A199]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> </ul>	Guillemot are a resident species in Ireland which feed mainly on small fish and some invertebrates caught by surface diving. They nest on cliff ledges, often in large colonies – and winter at sea. They have a foraging range of 338 km, with a mean max of 73.2±80.5 km and mean of 33.1±36.5 km. As the project site is 9.7 km from the Horn Head to Fanad Head SPA, the footprint of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are likely to be minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Guillemot can be screened out.</b>
Herring Gull ( <i>Larus argentatus</i> ) [A184]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>West Donegal Coast SPA (004150)</li> <li>West Donegal Islands SPA (004230)</li> </ul>	Herring Gull are a resident species that is a predator and scavenger. Breeds in colonies around the coast of Ireland and also inland. They feed on fish in open water, caught close to the surface, by shallow plunging (generally <2m), either from low hovering flight or from surface swimming with a short surface jump to launch the dive. They have a foraging range of 92 km. As the project site is approximately 17.5 km from the Lough Foyle SPA, the footprint of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project

		are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Herring Gull are screened out.</b>
Kittiwake ( <i>Rissa tridactyla</i> ) [A188]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>West Donegal Coast SPA (004150)</li> </ul>	Kittiwake are a summer visitor to steep coastal cliffs along all Irish coasts. They disperse to the open ocean in winter. They feed on fish and scavenges. They breed on steep sea cliffs where it builds a nesting platform. As the project site is 9.7 km from the Horn Head to Fanad Head SPA, the footprint of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>the Kittiwake can be screened out.</b>
Knot ( <i>Calidris canutus</i> ) [A143]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	Knot are a winter visitor from Greenland and Canada. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Knot is carried forward for Stage 2 Assessment.</b>
Lapwing ( <i>Vanellus vanellus</i> ) [A142]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> </ul>	Lapwing are resident species in Ireland although there are also summer and wintering populations. They feed at night on a variety of soil and surface-living invertebrates. They breed on open farmland and winter in a variety of habitats. As the project site is 17.5 km from the Lough Foyle SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Lapwing can be screened out.</b>
Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Trawbreaga Bay SPA (004034)</li> </ul>	The Light-bellied Brent Goose is a winter visitor to Ireland, which feeds mostly on eel-grass, which grows on muddy estuaries, and also on grasslands. Mostly found on coastal estuaries during the autumn and early winter, and also on grasslands from mid-winter, until departure for the breeding grounds begins in late April. The project site is 17.5 km from the closest SPA for this species. Considering the footprint of the project and the distance between the SAC and the project, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Light-bellied Brent Goose can be screened out.</b>
Mallard ( <i>Anas platyrhynchos</i> ) [A053]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	The Mallard is a resident species in Ireland occurring in almost all available wetland habitats of Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Mallard is carried forward for Stage 2 Assessment.</b>
Merlin ( <i>Falco columbarius</i> ) [A098]	<ul style="list-style-type: none"> <li>Derryveagh and Glendowan Mountains SPA (004039)</li> </ul>	Merlin are found in uplands in summer and widespread at lowland sites from October to April. They nest on the ground on moorland, mountain and blanket bog, woodland and also forestry plantations. They feed on small birds. As the project site is 18.6 km from the Derryveagh and Glendowan Mountains SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>the Merlin can be screened out.</b>



Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	Oystercatcher are a resident and winter species in Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Oystercatcher is carried forward for Stage 2 Assessment.</b>
Peregrine ( <i>Falco peregrinus</i> ) [A103]	<ul style="list-style-type: none"> <li>Derryveagh and Glendowan Mountains SPA (004039)</li> <li>Horn Head to Fanad Head SPA (004194)</li> <li>West Donegal Coast SPA (004150)</li> </ul>	The foraging ranges of the Peregrine Falcon are extensive and largely encompass terrestrial habitats. They prey mostly on other birds. Peregrine breed on coastal and inland cliffs. During winter, Peregrine can be found on the coast, especially in estuaries where waterfowl prey is plentiful. As the project site is 9.7 km from the closest SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Peregrine can be screened out.</b>
Pochard ( <i>Aythya ferina</i> ) [A059]	<ul style="list-style-type: none"> <li>Lough Fern SPA (004060)</li> </ul>	Pochard are a wintering diving duck foraging largely on aquatic plants in large shallow eutrophic waters. As the project site is 11.7 km from the closest SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>Pochard can be screened out.</b>
Razorbill ( <i>Alca torda</i> ) [A200]	<ul style="list-style-type: none"> <li>Horn Head to Fanad Head SPA (004194)</li> <li>West Donegal Coast SPA (004150)</li> </ul>	Razorbill are a resident species that feeds mainly on small fish, some invertebrate. Nests on sea cliffs in summer. They winter at sea, only coming to shore to breed. As the project site is 9.7 km from Horn Head to Fanad Head SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitat and the site, <b>the Razorbill can be screened out.</b>
Redshank ( <i>Tringa totanus</i> ) [A162]	<ul style="list-style-type: none"> <li>Lough Foyle SPA (004087)</li> <li>Lough Swilly SPA (004075)</li> </ul>	Redshank are resident to Ireland, winter visitors from Iceland and passage migrants (from Scandinavia/Baltic breeding areas to west African wintering areas). As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Redshank is carried forward for Stage 2 Assessment.</b>
Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069]	<ul style="list-style-type: none"> <li>Lough Swilly SPA (004075)</li> </ul>	Red-breasted Merganser are resident and winter visitors to Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Red-breasted Merganser is carried forward for Stage 2 Assessment.</b>
Red-throated Diver ( <i>Gavia stellata</i> ) [A001]	<ul style="list-style-type: none"> <li>Derryveagh and Glendowan Mountains SPA (004039)</li> <li>Lough Foyle SPA (004087)</li> </ul>	Red-throated Diver are a winter visitor to all Irish coasts from September to April. They feed on small fish (sprat, sand eels, codling and flatfish) and fish spawn, frogs, shrimps, molluscs, water insects and annelids. Very few pairs breed in Ireland and these are restricted to Co. Donegal, in a nest constructed close to or on the water's edge. During the winter they are well distributed around the Irish coastline and are typically associated with shallow sandy bays. The maximum foraging range for breeding season Red-

		throated Diver is approximately 17.5 km. As the project site is 23km from the closest SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>the Red-throated Diver can be screened out.</b>
Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191]	<ul style="list-style-type: none"> <li>• Greers Isle SPA (004082)</li> <li>• Lough Swilly SPA (004075)</li> </ul>	Sandwich Tern have a mean foraging radius of 30km. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Sandwich Tern is carried forward for Stage 2 Assessment.</b>
Scaup ( <i>Aythya marila</i> ) [A062]	<ul style="list-style-type: none"> <li>• Lough Swilly SPA (004075)</li> </ul>	Scaup are a winter visitor to Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Scaup is carried forward for Stage 2 Assessment.</b>
Shag ( <i>Phalacrocorax aristotelis</i> ) [A018]	<ul style="list-style-type: none"> <li>• Horn Head to Fanad Head SPA (004194)</li> <li>• Inishtrahull SPA (004100)</li> <li>• West Donegal Coast SPA (004150)</li> <li>• West Donegal Islands SPA (004230)</li> </ul>	Shag are a resident on Irish coasts. Their diet consists of a wide range of small fish which they dive for. They breed on cliffs and most adults will winter in the vicinity of their breeding colonies. As the project site is 9.7 km from the closest SPA, the size of this project is 0.1228 ha, and the effects from construction and operation of the project are very local, the likelihood of interaction between this QI and the project are minimal. As there is no likely significant overlap with potential feeding or breeding habitats and the site, <b>the Shag can be screened out.</b>
Shelduck ( <i>Tadorna tadorna</i> ) [A048]	<ul style="list-style-type: none"> <li>• Lough Foyle SPA (004087)</li> <li>• Lough Swilly SPA (004075)</li> </ul>	Shelduck are a resident and winter migrant duck. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Shelduck is carried forward for Stage 2 Assessment.</b>
Shoveler ( <i>Anas clypeata</i> ) [A056]	<ul style="list-style-type: none"> <li>• Lough Swilly SPA (004075)</li> </ul>	Shoveler, which feed primarily on zooplankton, are one of the wintering waterbirds to Lough Swilly SPA. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Shoveler is carried forward for Stage 2 Assessment.</b>
Teal ( <i>Anas crecca</i> ) [A052]	<ul style="list-style-type: none"> <li>• Lough Foyle SPA (004087)</li> <li>• Lough Swilly SPA (004075)</li> </ul>	Teal are a resident and winter visiting species, widespread on wetlands with good cover, such as reed-beds. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Teal is carried forward for Stage 2 Assessment.</b>
Wetland and Waterbirds [A999]	<ul style="list-style-type: none"> <li>• Lough Fern SPA (004060)</li> <li>• Lough Foyle SPA (004087)</li> <li>• Lough Swilly SPA (004075)</li> <li>• Trawbreaga Bay SPA (004034)</li> </ul>	As the project is located within Lough Swilly SPA a conservative approach is taken for screening, <b>the Wetland and Waterbirds is carried forward for Stage 2 Assessment.</b>
Whooper Swan ( <i>Cygnus cygnus</i> ) [A038]	<ul style="list-style-type: none"> <li>• Lough Foyle SPA (004087)</li> <li>• Lough Swilly SPA (004075)</li> </ul>	The Whooper Swan is a winter visitor to Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Whooper Swan is carried forward for Stage 2 Assessment.</b>

<p>Wigeon (<i>Anas penelope</i>) [A050]</p>	<ul style="list-style-type: none"> <li>• Lough Foyle SPA (004087)</li> <li>• Lough Swilly SPA (004075)</li> </ul>	<p>Wigeon duck are a common winter visitor to wetlands throughout Ireland. As the project is located within an SPA for this species a conservative approach is taken for screening, <b>the Wigeon is carried forward for Stage 2 Assessment.</b></p>

### 2.6.1 Consideration of in-combination effects on Natura 2000 site Qualifying Interests

It is important to consider, for those QIs that may screen out during the initial AA screening exercise, if the pressures deriving from the proposed activities acts in-combination with other activities such that additive or synergistic effects are realised on the QIs. It is possible that such combined effect may cause the QI, therefore, to screen in and be considered further in the AA process. It should be noted that, interactions are additive when their combined effect is the sum of each independently, synergistic when the combined effect is greater than the sum of each independently, and antagonistic when the combined effect is less than the sum of each independently.

To this end, existing and proposed licensing activities in the vicinity of the proposed extensive shellfish culture activities have been reviewed. Those activities reviewed are:

- DHLGH Foreshore Licencing (<https://www.gov.ie/en/foreshore-notice> - accessed 27/07/2023)
- Donegal County Council planning ([Link](#) Map Viewer - accessed 27/07/2023)
- EPA pressures maps (www. <https://gis.epa.ie/EPAMaps/Water> - accessed 27/07/2023)

The review of these sources has identified no existing activities on the foreshore or adjacent to the foreshore that may interact with the proposed shellfish culture activities resulting in an additive or, more importantly, a synergistic cumulative effects, such that those QIs already screened out may now be included. The result of this scan has meant that screening conclusions identified above (and summarised below) are considered valid and the process can progress to the full AA stage

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## 3 Stage 1 Conclusions

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### 3.1 Stage 1 Screening Conclusions

This Stage 1 AA Screening has been undertaken to ensure that the competent authority is enabled to make an informed screening decision, whether it can be excluded on the basis of objective information that the proposed development will have an effect on any Natura 2000 site (or QI), individually or together with other plans and projects.

Based on the location, nature and zone of impact of potential effects, and the best scientific information available, this screening assessment has identified QIs or associated conservation features in the Natura sites that the proposed activities will spatially overlap with or has the possibility to significantly affect.

On the basis that likely significant effects of the proposed activity on the European sites cannot be ruled out, the following QIs are brought forward for Stage 2 Appropriate Assessment.

#### SAC QIs

- Estuaries [1130]
- *Lutra lutra* (Otter) [1355]

#### SPA QIs

- Great Crested Grebe (*Podiceps cristatus*) [A005]
- Grey Heron (*Ardea cinerea*) [A028]
- Whooper Swan (*Cygnus cygnus*) [A038]
- Greylag Goose (*Anser anser*) [A043]
- Shelduck (*Tadorna tadorna*) [A048]
- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Mallard (*Anas platyrhynchos*) [A053]
- Shoveler (*Anas clypeata*) [A056]
- Scaup (*Aythya marila*) [A062]
- Goldeneye (*Bucephala clangula*) [A067]
- Red-breasted Merganser (*Mergus serrator*) [A069]
- Coot (*Fulica atra*) [A125]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Knot (*Calidris canutus*) [A143]
- Dunlin (*Calidris alpina*) [A149]
- Curlew (*Numenius arquata*) [A160]
- Redshank (*Tringa totanus*) [A162]
- Greenshank (*Tringa nebularia*) [A164]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]
- Common Gull (*Larus canus*) [A182]
- Sandwich Tern (*Sterna sandvicensis*) [A191]
- Common Tern (*Sterna hirundo*) [A193]
- Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]
- Wetland and Waterbirds [A999]