



**Report supporting the
Appropriate Assessment Screening of
Foreshore License (FC/15/29) in
Portaleen Pier, 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)

Executive Summary

The Marine Institute has been requested to review an application for foreshore activities (FC/15/29) to refurbish and reconstruct the quay wall at Portaleen pier, Glengad, 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 is within the North Inishowen Coast SAC and adjacent (within 15km) to 3 other SACs and 10 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

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Vegetated sea cliffs of the Atlantic and Baltic coasts [2130]
- Otter (*Lutra lutra*) [1355]

1 Introduction

1.1 Overview of this document

This is an Appropriate Assessment screening report supporting the Appropriate Assessment of foreshore activities (FC/15/29) at Portaleen, Co. Donegal in Natura 2000 site North Inishowen Coast SAC (site code 002012).

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**¹) 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** sites².

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*³, 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/EEC⁴. 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

¹ https://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

² https://ec.europa.eu/environment/nature/natura2000/index_en.htm

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

⁴ 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.

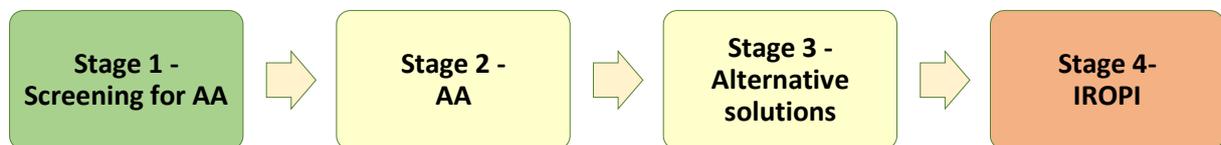
The licensing authority determines applications for foreshore licences and are also the competent authority responsible for undertaking AA of applications. As part of the process, they must determine if the proposed activities are likely to significantly impact the Conservation Status of QIs and the 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 ⁵.

The *Guidance on Appropriate Assessment of Plans and Projects in Ireland* document⁶ published by the Department of Environment, Heritage and Local Government (DEHLG) 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 Screening⁷, 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 principle⁸. The

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

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

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

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

greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no effect.

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 have adverse effects on 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. **Conclusions and recommendations** - provides an outline of the findings from the assessment 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

2 Appropriate Assessment Screening

2.1 Assessment of Activities

The Marine Institute has been requested to review an application for foreshore activities for the refurbishment and reconstruction of the quay wall at Portaleen Pier in Glengad, Co. Donegal.

This section identifies the proposed activities related to the development to be considered as part of the screening exercise in this report, and then considers whether these 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 2.3. 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.

2.1.1 Details of Proposed Foreshore Activities

The methodology text in this Section has been synthesised from the applicant's supplied documentation. The proposed project is for the refurbishment and repair of Portaleen Pier, in Glengad in Co. Donegal (Figure 1). The structure of the current pier consists of a concrete loading/berthing quay with an adjacent slipway. The pier is approximately 85m long, the slipway is approximately 40m long and 7m wide. Portaleen Pier is operational year-round, where brown crab, lobster and whelk are primarily landed. Departures for deep-sea angling charters and diving charters also utilise this pier. The pier supports the fishing industry communities of Portaleen and Glengad, employing 30-40 people. There is an existing marine supply store at the pier.



Figure 1 Ariel view of the current pier.

Extensive undermining and cavities under the quay wall and pier were recorded in a recent dive survey. The AA Screening Report by Byrnelooby, noted that the quay wall of the entire pier requires refurbishment/replacement due to abrasion and erosion and scaling due to poor quality concrete. According to the methodology documents, the elevation of the quay wall showed significant damage. Areas of spalling concrete, cracked and broken render, and undermining of the base of the wall were recorded, with significant scour, gaps and voids under the concrete wall of the pier between the base of the wall and the bedrock.

The project proposed is for the construction of a new reinforced concrete pier wall, 250mm thick, offset from the existing pier wall, backfilling behind the proposed wall and extension of the pier deck slab to tie into the proposed wall. Part of the works will include underwater construction as the pier still remains 2m underwater at lowest astronomical tide. Where the 250mm new wall stops at the steps, repairs will be carried out by filling voids with microconcrete (larger voids) or polymer modified cementitious repair mortar (smaller voids and above mean low water springs)

For the repair of the Quay Wall, plant and quay wall repair materials will be delivered to the site by road and offloading in the site area. Temporary steel supports will be installed to the quay wall face at approximately the mean low water springs. The concrete deck slab is to be demolished and removed for a distance of 2.5m back from the south face of the quay. All damaged concrete and any loose or spalling material from the face of the quay wall will be removed. A 300mm x 300mm chase will be cut in the rock along the quay wall and between 0.4m and 0.7m from the face of the southern (main) wall and 1.8m from the face of the eastern (end) wall. Sheet piling will be fixed to the chase cut in the rock and supported at the top by temporary steelwork supports. The sheet piling will be concreted in place by filling the rock chase with concrete using a tremie or pump. Temporary vertical formwork will be fixed to the face of the quay wall (where existing wall is poorly undermined) using the sheet piling as support with concreted pumped into the voids. The temporary vertical formwork will be removed. The lower section of the concrete wall will be placed using sheet piling as permanent formwork. A 250mm concrete facing will be applied to the quay wall, using the lower section as a base for the formwork, and this will be tied in to a new 225mm slab at the top. After this, ancillaries will be installed.

For the repair of the slipway, all damaged concrete and loose/spalling material will be removed and the top 6m of existing concrete deck slab will be demolish and removed. A 300mm x 300mm chase will be cut in rock along the quay wall 200mm from the face of the existing edge wall. A short section of sheet piling to required levels to be fixed in the chase cut in the rock. The sheet piling will be concreted in place by filling the rock chase with concrete using a tremie to place the concrete. The new concrete wall will be placed using sheet piling to fix formwork. The existing slipway is to be overlapped with a new 150mm concrete slab.

Working is planned for daylight hours between 8:00- 17:00 (depending on the tide). Equipment listed to be used include: a 13 tonne excavator including compacting plate attachment; a Crane; a 32 tonne tipper lorry; a concrete lorry; and a 6 tonne dumper. The pier will be operational but berthing and usage will be restricted during construction.

Mitigation measures include using precast concrete caisson units will be used underwater to prevent pollution. Some construction materials may be stored on-site. All construction waste will be disposed of in licensed facilities. Any spillage from Engineered granular fill material, steel reinforcement, cast in-situ concrete will be used for the retaining wall and slipway deck. The works should not produce

any dredge material or sediment for disposal. All liquids will be stored in a bunding spill tray. Excess light pollution will be avoided with the use of lighting towers. All equipment will be checked daily and have maintenance records to reduce excess noise generation.

A Method Statement is supplied detailing methodology and mitigation measures. The works Contractor will be required to implement all measures necessary for the protection of the site during the works in order to avoid any direct or indirect impacts from the works, a Construction Environmental Management Plan will be developed once contractor appointed, along with a Biosecurity Method Statement detailing the proposed approach to ensure that invasive species are not imported or spread during construction. The necessary measures will be put in place to prevent spills or run-off and minimise impacts.

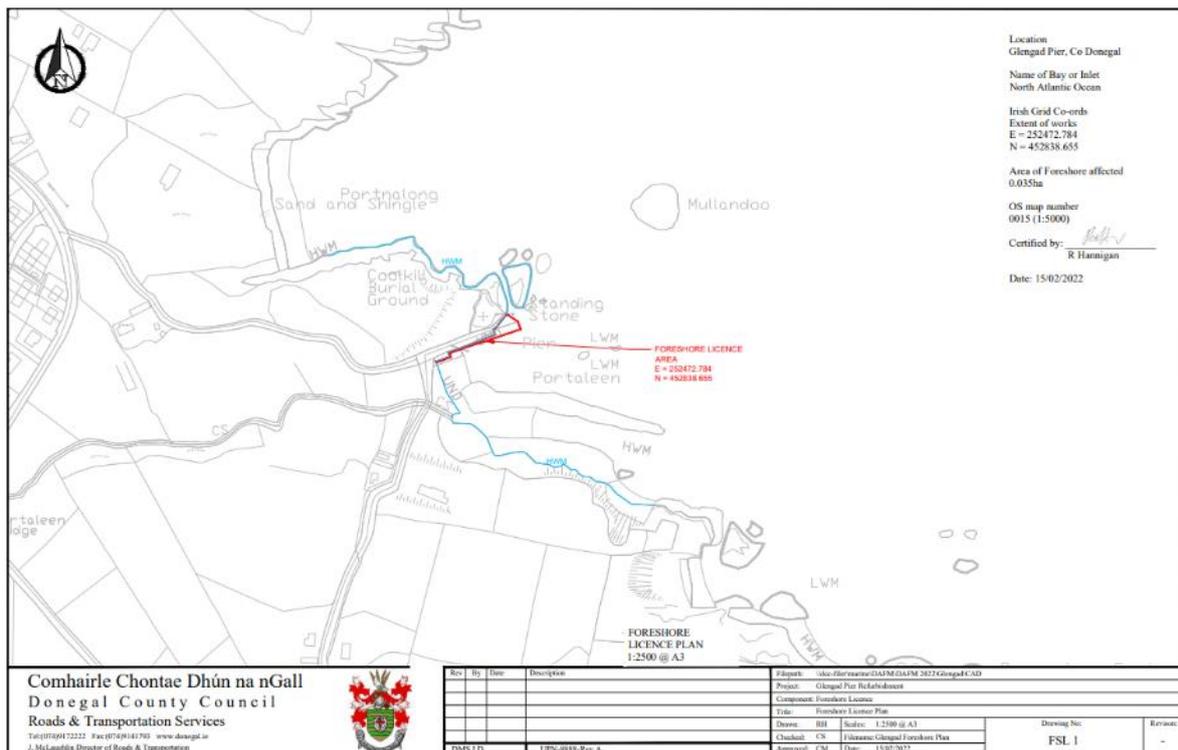


Figure 2 The proposed project site layout, project in red. Ordnance Survey Map 002 (from applicant documents).

2.2 Identification of Relevant Natura 2000 Sites

The proposed site overlaps with the North Inishowen Coast SAC (**Figure 3**) and does not overlap with any SPAs (**Figure 4**). 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.

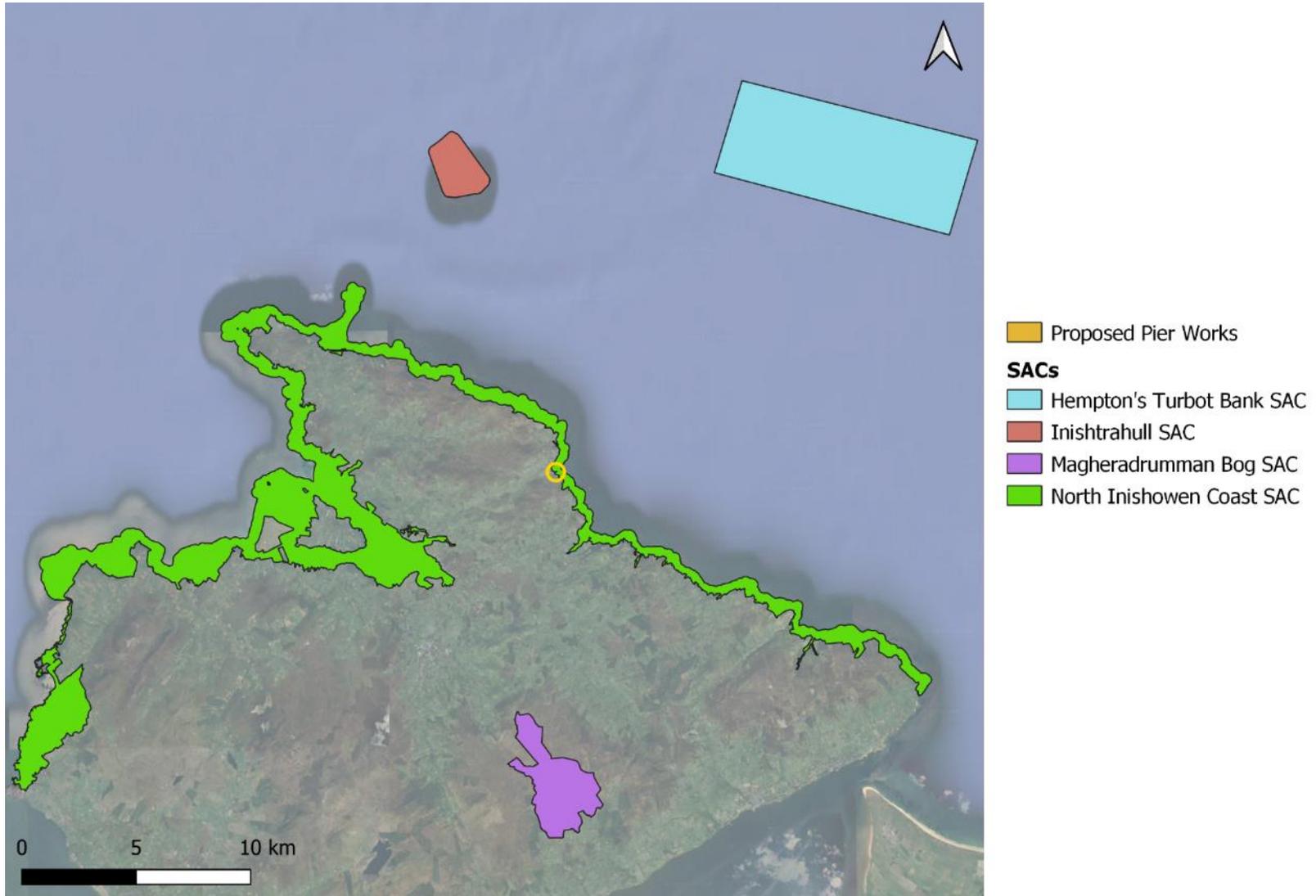


Figure 3 Natura 2000 SAC sites overlapping and adjacent to the application site (within 15km). Application site in yellow circle. Google satellite basemap (2023)

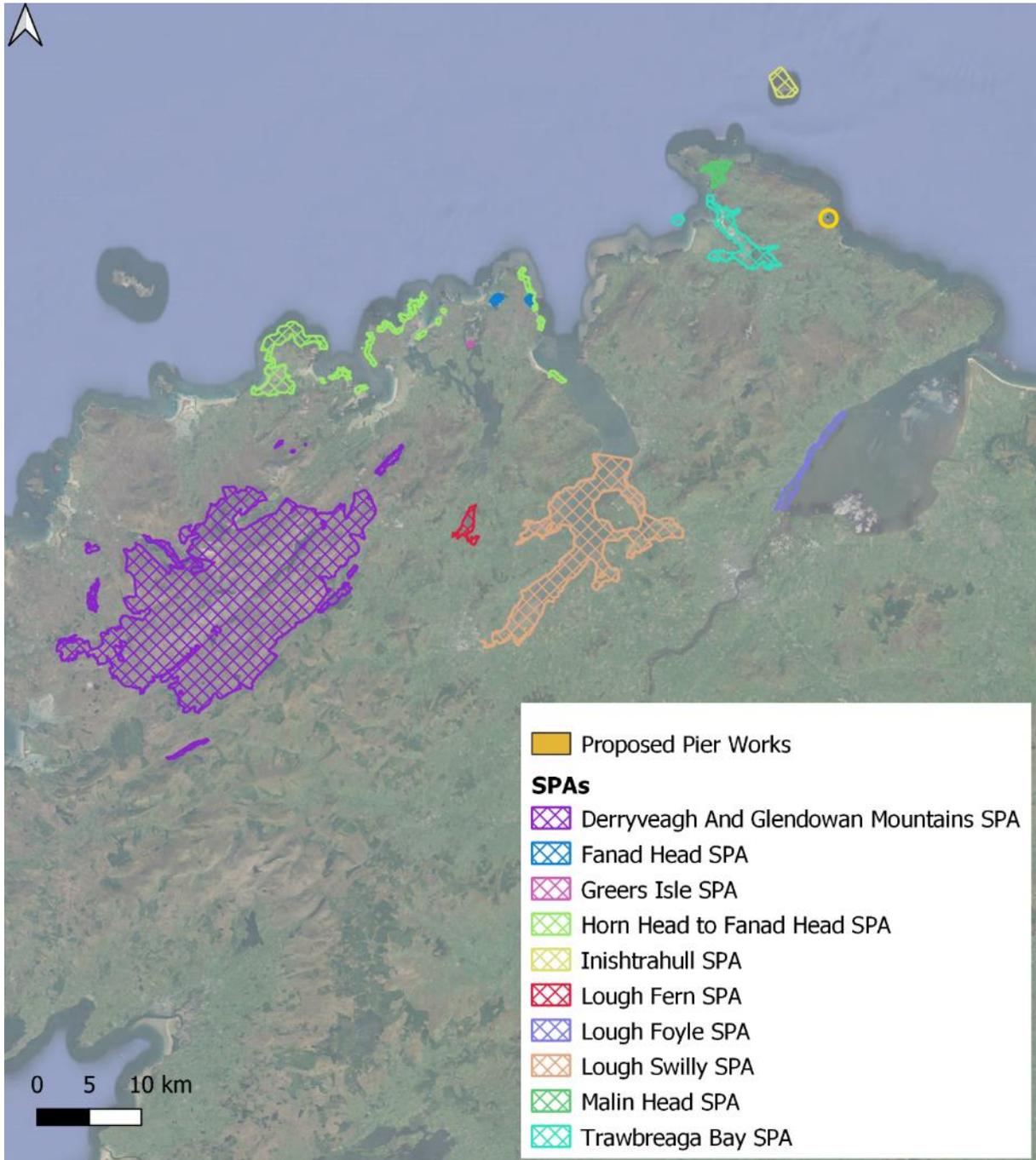


Figure 4 Natura 2000 SPA sites adjacent to the application site (50km). Application site in yellow circle. Google satellite basemap (2023)

2.2.1 Details of Natura 2000 Sites in the zone of influence

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 and displayed in Figure 3 and Figure 4. Their details and QIs are listed in Table 2-2 for the SACs and Table 2-4 for the SPAs.

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
North Inishowen Coast SAC	002012	SAC	0	Link
Magheradrumman Bog SAC	000168	SAC	10.5	Link
Inishtrahull SAC	000154	SAC	12.6	Link
Hempton's Turbot Bank SAC	002999	SAC	14.7	Link
Trawbreaga Bay SPA	004034	SPA	5.6	Link
Malin Head SPA	004146	SPA	10.4	Link
Inishtrahull SPA	004100	SPA	12.2	Link
Lough Foyle SPA	004087	SPA	18.8	Link
Horn Head to Fanad Head SPA	004194	SPA	29	Link
Fanad Head SPA	004148	SPA	29	Link
Lough Swilly	004075	SPA	30	Link
Greers Isle SPA	004082	SPA	36.1	Link
Lough Fern SPA	004060	SPA	43.7	Link
Derryveagh and Glendowan Mountains SPA	004039	SPA	46.4	Link

2.2.1.1 North Inishowen Coast SAC

The site is located within the North Inishowen Coast SAC [002012]. This SAC stretches from Crummies Bay in the west up to Malin Head and back down to Inishowen Head to the east. It encompasses an excellent variety of coastal habitats including high rocky cliffs, offshore islands, sand dunes, saltmarsh, a large intertidal bay, and rocky, shingle and sand beaches. There are excellent raised beaches along the east coast including the oldest and best preserved late-glacial fossil coast in Ireland (between Ineuran Bay and Esky Bay). Indeed, it is the only well preserved such coast in Europe and so is of international importance. Also of geomorphological interest is the small area of stone polygons near Malin Tower. Figure 5 shows the locations of the Annex I habitats within the SAC and locality of the project.

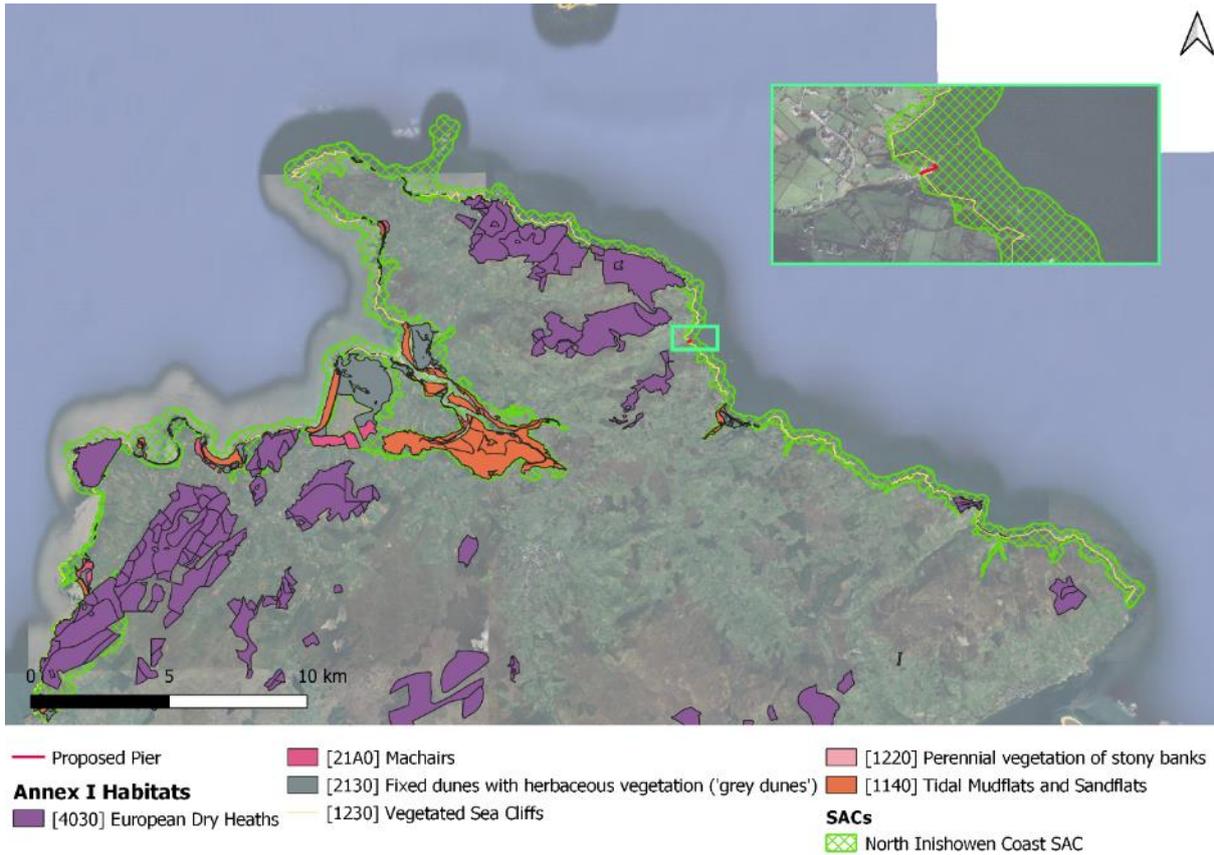


Figure 5 QI Annex I Habitats of North Inishowen Coast SAC

2.3 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.

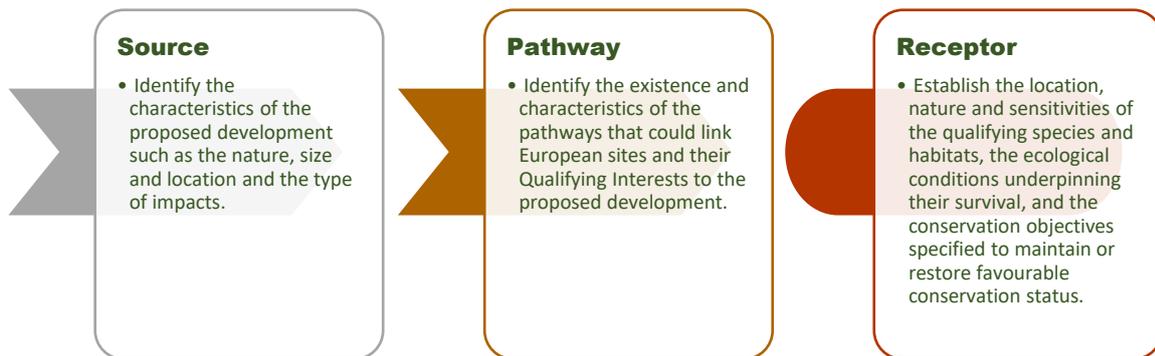


Figure 6 Source-Pathway-Receptor (S-P-R) link diagram.

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 interest⁹.

The screening for the presence of a S-P-R link and any potential significant effects of the proposed 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. This screening is undertaken without the inclusion of any mitigation measures.

2.3.1 Screening of QIs of 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. Guidance¹⁰ 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. 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. 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.

⁹ OPR - Office of Planning Regulator (2021). Appropriate Assessment Screening for Development Management. March 2021. 43pp [Link](#)

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

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
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	<p>The proposed project overlaps with a portion of the North Inishowen Coast SAC. The footprint of this project is 0.035 ha. Mudflats and sandflats not covered by seawater at low tide [1140] are adjacent to the proposed activity. As there is a potential of a hydrological link, there may be potential “source-path-receptor” interactions with the closer QIs.</p> <p>The project is located in area of Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] so there is a potential “source-path-receptor” interactions with the these QIs. Therefore, these Annex I habitats:</p> <ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide [1140] • Vegetated sea cliffs of the Atlantic and Baltic coasts [2130] <p>are carried forward to Stage 2 Assessment.</p>
	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	
	Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation (grey dunes)	<p>These QIs are generally terrestrial habitats. There is no pathway for interaction due to the non-marine and terrestrial nature so there is no potential “source-path-receptor” interactions with the these QIs.</p> <p>Therefore, these Annex I Habitats:</p> <ul style="list-style-type: none"> • Fixed coastal dunes with herbaceous vegetation (grey dunes) • Machairs [21A0] • Perennial vegetation of stony banks [1220], and • European dry heaths [4030], <p>can be screened out as there is no likely significant effects.</p>
	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	
	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)	

	<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 proposed project overlaps with the otter commuting habitat, Otter is carried forward to Stage 2 Assessment.
<i>Magheradrumman Bog SAC</i> (000168)	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>	Magheradrumman Bog SAC is approximately 10.5 km from the proposed project. The footprint of this project is 0.035 ha, the effects from the project are very local. Considering their terrestrial nature and distance between the SAC and the project, 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 these QIs and can therefore be screened out.
	Blanket bogs (* if active bog) [7130]	To restore the favourable conservation condition of Blanket bogs (*if active bog)	
<i>Inishtrahull SAC</i> (000154)	Vegetated sea cliffs of the Atlantic and Baltic coasts [1239]	To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts	Vegetated sea cliffs of the Atlantic and Baltic coasts [1239] are considered based on their presence in the North Inishowen Coast SAC.
<i>Hempton’ s Turbot Bank SAC</i> (002999)	Sandbanks which are slightly covered by sea water all the time [1110]	To maintain the favourable conservation condition of Sandbanks which are slightly covered by sea water all the time in Hempton's Turbot Bank SAC	The Hempton’s Turbot Bank SAC is approximately 14.7 km from the closest boundary of the proposed project. The size of this project is 0.035 ha and the effects from the project are very local. Considering the distance between the SAC and the project, 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 Sandbanks which are slightly covered by sea water all the time and can, therefore, be screened out.

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.

SPA	Qualifying Interest
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] 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]
Fanad Head SPA	Corncrake (<i>Crex crex</i>) [A122]
Trawbreaga Bay SPA (004034)	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]
Greers Isle SPA	Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]
Lough Swilly SPA	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]
Malin Head SPA (004146)	Corncrake (<i>Crex crex</i>) [A122]
Lough Fern SPA	Pochard (<i>Aythya ferina</i>) [A059] Wetland and Waterbirds [A999]
Derryveagh and Glendowan Mountains SPA	Red-throated Diver (<i>Gavia stellata</i>) [A001] Merlin (<i>Falco columbarius</i>) [A098] Peregrine (<i>Falco peregrinus</i>) [A103] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Dunlin (<i>Calidris alpina schinzii</i>) [A466]
Lough Foyle SPA	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]

	<p>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>
Inishtrahull SPA (004100)	<p>Shag (<i>Phalacrocorax aristotelis</i>) [A018] Barnacle Goose (<i>Branta leucopsis</i>) [A045] Common Gull (<i>Larus canus</i>) [A182]</p>

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

Qualifying Interest	Conservation Objectives	Screening Outcome ^{11, 12}
Barnacle Goose (<i>Branta leucopsis</i>) [A045]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) Inishtrahull SPA (004100) Trawbreaga Bay SPA (004034) 	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 5.6 km from the closest SPA for this species, the footprint of this project is 0.035 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, Barnacle Goose can therefore be screened out.
Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) 	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 18.8 km from the Lough Foyle SPA, the footprint of this project is 0.035 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, Bar-tailed Godwit can be screened out.
Bewick's Swan (<i>Cygnus columbianus bewickii</i>) [A037]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) 	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. As the project site is 18.8 km from the Lough Foyle SPA, the size of this project is 0.035 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 wintering habitat and the proposed site, Bewick's Swan can be screened out.
Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]	<ul style="list-style-type: none"> Greers Isle SPA (004082) Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Black-headed Gulls are a resident species in Ireland. They feed on insects but have been recorded feeding on domestic and fisheries waste. They nest in colonies on the ground in wetland areas like bogs and marshes. As the project site is 12.4 km from the closest SPA for this species, the size of this project is 0.06 ha, and the effects from construction and operation of the project are very local, the likelihood of

¹¹ 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>

¹² '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.

		interaction between this QI and the project are minimal. There will be no habitat loss within the SPA, and the natural range of the species will not be significantly impacted. The project is unlikely to affect the population dynamics of the species. As there is no likely significant overlap with potential breeding, feeding or habitat and the proposed site, Black-headed Gull can be screened out.
Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) Trawbreaga Bay SPA (004034) 	<p>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. In 2005, 55 Chough were recorded at a coastal roost at Five Fingers in Trawbreaga SPA and flocks of up to 100 birds have been recorded foraging within that site. 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.</p> <p>The project site is 5.6 km from the closest SPA for this species, and habitat for breeding and flocking activities are not present at the proposed site.</p> <p>The small project footprint and localised effects mean the likelihood of interaction between this QI and the project are minimal. Existing anthropogenic disturbance at the site would be comparable to disturbance generated by the proposed project. As there is no likely significant overlap of the project and the breeding or flocking activities, Chough are screened out</p>
Common Gull (<i>Larus canus</i>) [A182]	<ul style="list-style-type: none"> Greers Isle SPA (004082) Inishtrahull SPA (004100) Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	<p>Common Gull are a local breeding species, which feeds on terrestrial and aquatic insects and invertebrates, fish, and scavenging, with a foraging range of 50 km. Inishtrahull SPA, the closest to the project site, supports a nationally important breeding population of Common Gull (30 pairs recorded in 1999). They breed in nests on the ground. The project site is 12.2 km from the Inishtrahull 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, Common Gull are screened out.</p>
Common Tern (<i>Sterna hirundo</i>) [A193]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	<p>Common Tern are a summer visitor to Ireland, which feeds chiefly on fish. They nest colonially on the ground from April to October. Common Tern breeds on the coast, and also inland on islets in freshwater lakes. They have a breeding season foraging range of 30 Km, with a mean of 6.4 km. The Lough Swilly SPA is 30 km from the site. The size of this project is 0.035 ha, and the effects from construction and operation of the project are very local, therefore 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, Common Tern can therefore be screened out.</p>
Coot (<i>Fulica atra</i>) [A125]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	<p>Coot, an omnivorous bird feeding on plants, insects and fish, are found in ponds and lakes throughout Ireland. The project site is 30 km from the closest SPA for this species. The freshwater nature of this QI means the likelihood of interaction with the project site is small. Considering the localised effect form this project, there is no likely significant overlap with potential feeding or breeding habitats and the site. Coot can be screened out.</p>

Cormorant (<i>Phalacrocorax carbo</i>) [A017]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) 	There is a resident population of Cormorant around the coast, which breeds in colonies on stacks, rocky islets, cliffs or rocky promontories, with some breeding inland. They winter at sea and inland. They feed solely on fish. The project site is 29 km from the closest SPA for this species. The footprint of this project is 0.035 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, Cormorant can be screened out.
Corncrake (<i>Crex crex</i>) [A122]	<ul style="list-style-type: none"> Fanad Head SPA (004148) Malin Head SPA (004146) 	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 10.4 km from the closest SPA for this terrestrial species. The size of this project is 0.035 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, Corncrake can therefore be screened out.
Curlew (<i>Numenius arquata</i>) [A160]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Curlew are a winter visitor in Ireland and have been recorded as breeding in floodplains and boglands. Curlew feed mostly on invertebrates and usually feed in estuaries. They roost along salt marshes and sand banks and have been recorded nesting on the ground in rough pastures, meadows and heathers. The project site is 18.8 km from the closest SPA for this species. The size of this project is 0.035 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, Curlew can be screened out.
Dunlin (<i>Calidris alpina schinzii</i>) [A466]	<ul style="list-style-type: none"> Derryveagh and Glendowan Mountains SPA (004039) 	Dunlin are a visitor, which feed predominantly on small invertebrates of estuarine mudflats (polychaete worms & gastropods). They commonly winter along all coastal areas - especially on tidal mudflats and estuaries. They feed in flocks, in the muddier sections of the estuaries and close to the tide edge. They nest on the ground in sparse, low vegetation - favouring machair habitat. The project site is 18.8 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 or breeding habitats and the site, Dunlin can be screened out.
Dunlin (<i>Calidris alpina</i>) [A149]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	
Eider (<i>Somateria mollissima</i>) [A063]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) 	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 18.8 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, Eider can be screened out.
Fulmar (<i>Fulmarus glacialis</i>) [A009]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) 	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 impacted by light at night-time. The project site is 29 km from the closest SPA for this species. Fulmar have a max foraging range of 2736 Km, mean max of 542.3±657.9 km and mean range of 134.6±90.1 Km. Considering the distance of the project from the SAC, the small project footprint and localised effects, 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, Fulmar are screened out.
Golden Plover (<i>Pluvialis apricaria</i>) [A140]	<ul style="list-style-type: none"> • Derryveagh and Glendowan Mountains SPA (004039) • Lough Foyle SPA (004087) 	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 18.8 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, the Golden Plover can be screened out.
Goldeneye (<i>Bucephala clangula</i>) [A067]	<ul style="list-style-type: none"> • Lough Swilly SPA (004075) 	Goldeneye prefer to reside on coastal estuaries and inland lakes. They nest in trees, and occasionally rabbit burrows, near water. They feed on invertebrates, with insects dominating the diet. The project site is 30 km from the closest SPA for this species. Considering the size 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, Goldeneye can be screened out.
Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]	<ul style="list-style-type: none"> • Lough Foyle SPA (004087) • Lough Swilly SPA (004075) 	The Great Crested Grebe is a resident species along all Irish coasts, feeding mainly on fish. They breed on large shallow eutrophic loughs, along canals and slow-flowing rivers. They winter mainly in the north midlands and northeast. As the project site is 18.8 km from the closest SPA for this species, the footprint of this project is 0.035 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, the Great Crested Grebe can be screened out.
Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]	<ul style="list-style-type: none"> • Horn Head to Fanad Head SPA (004194) • Lough Swilly SPA (004075) 	Greenland White-fronted Geese are a scarce winter visitor to wetlands. They graze on a range of plant materials. Foraging occurs over peat bogs, dune grasslands and occasionally salt marshes. They do not breed in Ireland. As the project site is 29 km from the closest SPA for this terrestrial species, the size of this project is 0.035 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, the Greenland White-fronted Goose can be screened out.

Greenshank (<i>Tringa nebularia</i>) [A164]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	Greenshank are mainly an estuarine winter visitor from September to April. They feed mostly in deep water sites and lakes on invertebrates and small fish. As the project site is 18.8 km from the Lough Swilly SPA, the size of this project is 0.035 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, the Greenshank can be screened out.
Grey Heron (<i>Ardea cinerea</i>) [A028]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	The Grey Heron are a resident in wetlands, estuaries and along rivers in Ireland. They feed on fish, amphibians, small mammals, insects and reptiles. They breed in trees. The project site is 18.8 km from the Lough Swilly SPA. 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, Grey Heron can be screened out.
Greylag Goose (<i>Anser anser</i>) [A043]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	The Greylag Goose is a winter migrant between November and April. They feed mostly in estuaries, feeding on the roots of rushes and sedges. Greylag Geese feed on cereal stubble and grassland in their wintering areas. They breed by lakes and reservoirs, with their nests hidden in waterside vegetation. As the project site is 18.8 km from the closest SPA for this species, the size of this project is 0.035 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, the Greylag Goose can be screened out.
Guillemot (<i>Uria aalge</i>) [A199]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) 	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. The project site is 29 km from the Horn Head to Fanad Head SPA. The footprint of this project is 0.035 ha. Considering the size 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, Guillemot can be screened out.
Herring Gull (<i>Larus argentatus</i>) [A184]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) 	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-diving (generally <2m), either from low hovering flight or from surface swimming with a short surface jump to launch the dive. They have a maximum foraging range of 92 km, mean max of 58.8±26.8 km and mean range of 14.9±7.5 Km. The project site is approximately 18.8 km from the Lough Foyle SPA. The footprint of this project is 0.035 ha. Considering the size 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, Herring Gull are screened out.

Kittiwake (<i>Rissa tridactyla</i>) [A188]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) 	Kittiwake are a summer visitor to steep coastal cliffs along all Irish coasts. Disperses to the open ocean in winter. Feeds on fish and scavenges. They breed on steep sea cliffs where it builds a nesting platform. They have a maximum foraging range of 770 km, mean max of 156.1±144.5 km and mean range of 54.7±50.4 Km. The project site is 29 km from the Horn Head to Fanad Head SPA. The footprint of this project is 0.035 ha. Considering the size of the project, and that 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 no likely significant overlap with potential feeding habitat and the site, the Kittiwake can be screened out.
Knot (<i>Calidris canutus</i>) [A143]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Knot are a winter visitor from Greenland and Canada occurring mostly between October and February. They feed mostly on mussels and crustaceans by foraging in the sand. They prefer to winter in mostly estuarine sites with extensive areas of muddy sand. As the project site is 18.8 km from the closest SPA for this species, the size of this project is 0.035 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, Knot can be screened out.
Lapwing (<i>Vanellus vanellus</i>) [A142]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) 	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 18.8 km from the Lough Foyle SPA, the size of this project is 0.035 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, Lapwing can be screened out.
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Trawbreaga Bay SPA (004034) 	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 5.6 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, Light-bellied Brent Goose can be screened out.
Mallard (<i>Anas platyrhynchos</i>) [A053]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	The Mallard is a resident species in Ireland occurring in almost all available wetland habitats of Ireland. They feed on a variety of plant material, molluscs, crustaceans and food items presented by humans. They breed with next sites hidden in vegetation. The project site is 18.8 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, Mallard can be screened out.

Merlin (<i>Falco columbarius</i>) [A098]	<ul style="list-style-type: none"> Derryveagh and Glendowan Mountains SPA (004039) 	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 46.4 km from the Derryveagh and Glendowan Mountains 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 feeding or breeding habitats and the site, the Merlin can be screened out.
Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Oystercatcher are a resident and winter species in Ireland with the largest numbers between September and March. They build nests primarily on beaches, dunes, salt marshes and rocky shores. The project site is 18.8 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, Oystercatcher can be screened out.
Peregrine (<i>Falco peregrinus</i>) [A103]	<ul style="list-style-type: none"> Derryveagh and Glendowan Mountains SPA (004039) Horn Head to Fanad Head SPA (004194) 	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. The project site is 29 km from the closest SPA for this species. Considering the terrestrial nature, 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, Peregrine can be screened out.
Pochard (<i>Aythya ferina</i>) [A059]	<ul style="list-style-type: none"> Lough Fern SPA (004060) 	Pochard are a wintering diving duck foraging largely on aquatic plants in large shallow eutrophic waters. As the project site is 43.7 km from the closest SPA for this species, 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, Pochard can be screened out.
Razorbill (<i>Alca torda</i>) [A200]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) 	Razorbill are a resident species that feeds mainly on small fish and invertebrate. They nest on sea cliffs in summer. They winter at sea, only coming to shore to breed. The project site is 29 km from Horn Head to Fanad Head SPA. 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 habitat and the site, the Razorbill can be screened out.
Redshank (<i>Tringa totanus</i>) [A162]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Redshank are resident to Ireland, supplemented by winter visitors from Iceland and passage migrants (from Scandinavia/ Baltic breeding areas to west African wintering areas). They breed on the ground in predominantly marshy areas. They favour estuaries (Lough Foyle) and inlets (Lough Swilly) for their wintering activities. The project site is 18.8 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, Redshank can be screened out.
Red-breasted Merganser (<i>Mergus serrator</i>) [A069]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	Red-breasted Merganser are resident and winter visitors to Ireland. Their diet is mostly composed of fish (small cod, hake and plaice). During the breeding season, where they are in freshwater, they feed on roach, trout, salmon, eels and pike. They nest on sheltered lakes and large rivers. They winter in brackish and marine waters (i.e. shallow protected estuaries, bays and lagoons). As the project site is 30 km from the closest SPA for this species, the size of this project is 0.035 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 no likely significant overlap with potential feeding habitat and the site, Red-breasted Merganser can be screened out.
Red-throated Diver (<i>Gavia stellata</i>) [A001]	<ul style="list-style-type: none"> Derryveagh and Glendowan Mountains SPA (004039) Lough Foyle SPA (004087) 	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 9 km, mean 4.5km. The project site is 23 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, the Red-throated Diver can be screened out.
Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]	<ul style="list-style-type: none"> Greers Isle SPA (004082) Lough Swilly SPA (004075) 	The Sandwich Tern are a summer visitor to all Irish coasts from March to September. They winter in southern Europe and Africa, but about 10 to 15 birds winter in Galway Bay and Strangford Lough. They nest colonially on the ground on islands, shingle spits and sand dunes., mainly on the coast but with some colonies inland. They have a specialised diet comprised of marine fish, and they forage from shallow to deeper offshore waters, taking fish by shallow dives. The foraging range of this Tern has been reported as 80 km max and mean max of 34.3±23.2 km, with a mean of 9±9.2 km. The project site is 12.4 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, Sandwich Tern can be screened out.
Scaup (<i>Aythya marila</i>) [A062]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	Scaup are a winter visitor occurring mostly between November and April. They feed largely on crustaceans and molluscs. They do not breed in Ireland. They winter in coastal estuaries and bays, on brackish lagoons and in shallow marine waters. As the project site is 30 km from the Lough Swilly SPA, the size of this project is 0.035 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, Scaup can be screened out.
Shag (<i>Phalacrocorax aristotelis</i>) [A018]	<ul style="list-style-type: none"> Horn Head to Fanad Head SPA (004194) Inishtrahull SPA (004100) 	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, nesting on ledges, in crevasses, in caves or under boulders. Most adults will winter in the vicinity of their breeding colonies. The project site is 12.2 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, the Shag can be screened out.
Shelduck (<i>Tadorna tadorna</i>) [A048]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Shelduck are a resident and winter migrant duck. They prey on mudsnails (mostly <i>Hydrobia ulvae</i>) which are present in estuaries. They breed in open areas along seashores, larger lakes and rivers, nesting in holes in banks, trees, occasionally strawstacks or buildings. They winter in sheltered estuaries or tidal mudflats. The project site is 18.8 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, Shelduck can be screened out.
Shoveler (<i>Anas clypeata</i>) [A056]	<ul style="list-style-type: none"> Lough Swilly SPA (004075) 	Shoveler, which feed primarily on zooplankton, are one of the wintering waterbirds to Lough Swilly SPA. As the project site is 30 km from the Lough Swilly SPA, the size of this project is 0.035 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, Shoveler can be screened out.
Teal (<i>Anas crecca</i>) [A052]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	Teal are a resident and winter visiting species, widespread on wetlands with good cover, such as reed-beds. They feed by day on seeds, algae, molluscs and aquatic insects. They usually nest near small freshwater lakes or pools and small upland streams away from the coast, and also in thick cover. The project site is 18.8 km from the closest SPA for this species. Considering the freshwater nature, the footprint of the project, and the distance from the SAC, 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, Teal can be screened out.
Wetland and Waterbirds [A999]	<ul style="list-style-type: none"> Lough Fern SPA (004060) Lough Foyle SPA (004087) Lough Swilly SPA (004075) Trawbreaga Bay SPA (004034) 	As wetland and waterbirds are associated with freshwater and estuarine habitats, there should be no overlap with breeding, feeding or wintering habitat of these waterbirds. There is also no spatial overlap between these SPAs and the proposed project. Wetland and Waterbirds are screened out.
Whooper Swan (<i>Cygnus cygnus</i>) [A038]	<ul style="list-style-type: none"> Lough Foyle SPA (004087) Lough Swilly SPA (004075) 	The Whooper Swan is a winter visitor to Ireland from October to April. They feed on aquatic vegetation, but they are commonly found grazing on agricultural grasslands and fields where there is spilled grain,

		as well as potatoes from cultivated land. The Whooper Swans that are present in Ireland each winter nest in Iceland during the summer. Each year a small number of Whoopers stay in Ireland for the summer and there have been occasional breeding records on lakes in the midlands and north-west. They winter on lowland open farmland around inland wetlands. The project site is 18.8 km from the closest SPA for this species. Considering the freshwater nature, the footprint of the project, and the distance from the SAC, 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, Whooper Swan can be screened out.
Wigeon (<i>Anas penelope</i>) [A050]	<ul style="list-style-type: none"> • Lough Foyle SPA (004087) • Lough Swilly SPA (004075) 	Wigeon duck are a common winter visitor to wetlands throughout Ireland from September and April. They breed on shallow freshwater marshes, under tussocks adjacent to lakes and lagoons or on lake islands. The project site is 18.8 km from the closest SPA for this species. Considering the freshwater nature, the footprint of the project, and the distance from the SAC, 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, Wigeon can be screened out.

2.3.2 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

3 Stage 1 Conclusions

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

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Vegetated sea cliffs of the Atlantic and Baltic coasts [2130]
- Otter (*Lutra lutra*) [1355]