



**Report supporting the
Natura Impact Statement
of Foreshore License (FC/15/28)
in Burtonport, Co. Donegal**

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Executive Summary

The Marine Institute has been requested to review an application for foreshore activities for the refurbishing of the port wall at Burtonport Harbour, Co. Donegal. An Appropriate Assessment screening process, and a Natura Impact statement, have been compiled to consider whether the proposed activities are likely to significantly affect the QIs of the Natura 2000 sites in the zone of influence of the project, in view of their Conservation Objectives.

The site is not located within any Natura 2000 sites but was identified as potentially having 8 SAC and 18 SPAs within the zone of influence of the project.

Following a Stage 1 AA Screening process, the following were screened in as QIs that the planned project has potential to overlap with or and have the potential to significantly affect, and so are carried forward for full assessment:

SAC QIs

- Rutland Island and Sound SAC [002283]
 - Large shallow inlets and bays [1160]
 - Reefs [1170]
 - *Phoca vitulina* (Harbour seal) [1365]

SPA QIs

- Illancrone and Inishkeeragh SPA [004132]
 - Little Tern (*Sterna albifrons*) [A195]

The potential impacts from the proposed project could arise during the construction and operational phase of the project. The designated QI could be impacted in relation to loss of habitat; sediment contamination; noise and disturbance; water quality; and hydrodynamics.

The potential impacts are assessed in the Natura Impact Statement and it has been objectively concluded following best available information, objective criteria, best scientific knowledge and expert judgement, that the proposed project will not pose a risk of adversely affecting (either directly or indirectly) the integrity of Natura sites, either alone or in combination with other plans and projects.

1 Introduction

1.1 Overview of this document

This is a report supporting the Appropriate Assessment of foreshore activities in Burtonport, Co. Donegal (FC/15/28). It details the Natura Impact Statement.

This report is to consider if the proposed activities are likely to adversely 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 following assessment process outlined in this document. If there is potential for the activities considered to likely, significantly affect QIs and their conservation features, they are carried forward for a Stage 2 Appropriate Assessment, which considers the impacts on the integrity of the Natura site with respect to the sites conservation objectives, and is 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.

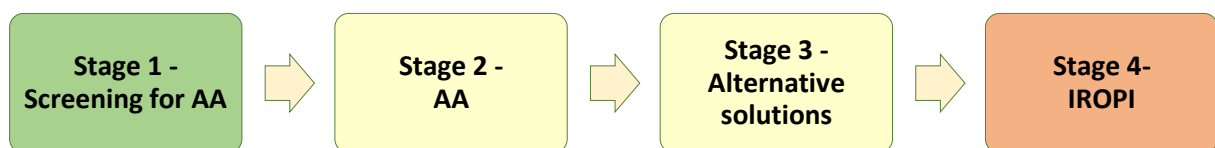
The licensing authority determines applications for foreshore licences and are also the competent authority responsible for undertaking AA of applications. As part of the process, they must determine if the proposed activities, individually or in-combination with other activities, are likely to significantly affect 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 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 greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no effect.

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](#)

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 significant 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 report provides:

1. **Introduction** - an outline of the legislative context and the processes.
2. **Proposed project Background** - providing details of the activity proposed.
3. **Stage II Appropriate Assessment (Natura Impact Statement)** - details the assessment of impacts on relevant Natura sites.
4. **Conclusions** – summary of the findings of the screening and 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 Proposed Project Background

The Marine Institute has been requested to review an application for foreshore activities (**Figure 1**) for the refurbishing of the port wall at Burtonport Harbour, Co. Donegal.

This section identifies the proposed activities related to the development to be considered as part of the assessment exercise in this report, and then considers whether these activities are likely to adversely affect the QIs of the Natura 2000 sites, in view of their Conservation Objectives (COs). These activities are then considered in-combination with other likely disturbing activities.

2.1 Details of Proposed Foreshore Activities

The methodology text in this Section has been synthesised from the applicant's supplied documentation. The coastal village of Burtonport is located in a deep inlet in west Donegal. Burtonport Pier is used year round for fishing mainly of brown crab but also lobster and velvet crab. Ferry operations operate year round with seasonal charters and leisure activity. Burtonport Harbour is an important connector with Arranmore Island where two separate ferry companies provide 12 return journeys daily. Burtonport is extremely busy throughout the summer months due to increased traffic from tourism and seasonal fishing, so it is not desirable to impact the harbour or to carry out construction works with such congestion. The harbour in Burtonport is well sheltered and the weather or sea conditions will not significantly impact construction works. Other sites in the harbour are anticipated to go through redevelopment, such as demolishing the existing auction hall and ice plant buildings, and developing car parking and a new ferry terminal building. These redevelopment projects are dependent on the refurbishment of the quay wall to support the proposed increase level of the adjacent road (~500mm) to alleviate existing flooding issues encountered during high tides.



Figure 1 The current pier and location (from application documents).

Currently, the quay wall (**Figure 2**) is losing fine particulate as it gets washed out from behind the quay wall. The extent of movement from settlement is predicted to lead to the collapse of the quay wall. A recent condition report confirmed the wall requires attention and suggested providing a line of sheet piles in front of the existing wall, providing a reinforced concrete pile cap and providing ties to tie the proposed quay wall back to a ground beam. It is therefore proposed to construct a new

sheet piled quay wall parallel to the existing stone wall to form a new quay wall to prevent collapse of the existing wall. Piling works are to be scheduled after tourism season between October and March.

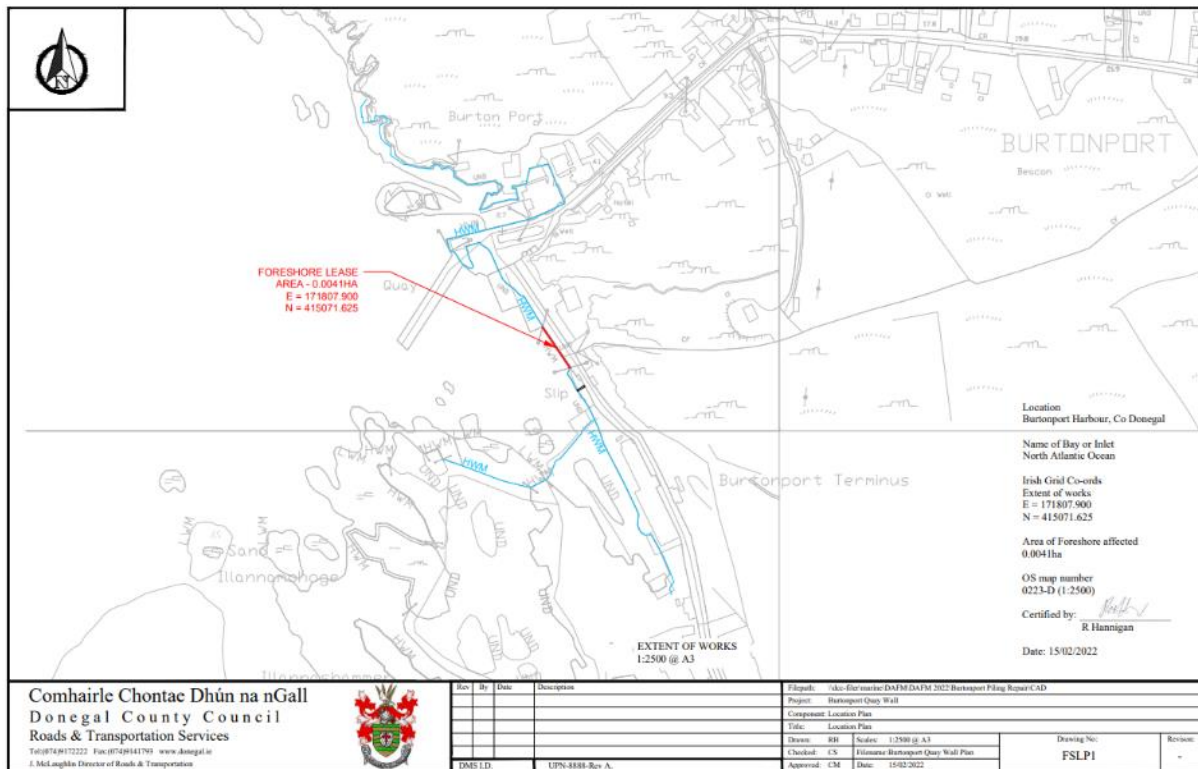


Figure 2 The proposed project site layout, project in red. Burtonport Quay Wall Location Plan (from applicant documents).

Machinery to be used include: 20 T excavator; 80 T crane; piling hammer (hydraulic); piling vibrator (hydraulic); 32 T tipper lorry; 6 T dumper; and compressor. Materials include: steel piles; steel waling beams; tie rods; precast concrete units; steel reinforcement; and granular fill material.

Due to the proximity of the road and the existing quay wall it will be necessary to restrict all traffic to this section of road during the construction works. An alternative route is available for diversion of traffic and a road closure will be put in place. The proposed work site will incorporate, by agreement, sections of existing pier and newly constructed car park.

No vessels will be permitted to berth at the quay wall during these works and the Burtonport Harbour Master will convey this message to all harbour users. A Marine Notice will also issue to inform mariners of the restrictions to berthing at Burtonport. The Burtonport Harbour Master will also liaise with ferry operators and advise on the restrictions to berthing and also the works taking place within the harbour that will impact their operations.

After mobilisation and site set-up the initial works will be the installation of the sheet piles into the seabed parallel to the existing masonry wall face, using a crane mounted vibratory piling rig. The crane will be located in the car opposite at least 10m away from the existing quay wall. Following installation of the piles stone fill and concrete will be placed between the sheet piles and the existing quay wall to a level not greater than 1.5m above existing bed level.

The area behind the existing quay wall and underneath the carriageway will be excavated to install the precast anchor wall and tie rods. The excavation for the anchor wall will be supported using trench sheets, railings and struts. The tie rods can then be installed and the excavation backfilled with

temporary supports removed as backfilling proceeds. When backfilling and compacting is completed to new road formation level the tie rods can be tightened enough just to take up the slack. At this point backfilling and compacting between the existing wall and the new sheet pile wall can be completed. A cast in-situ piling cap can then be constructed on top of the piles and this will be followed by new pier decking and new road.

As highlighted in the method statement two main environmental considerations were identified: noise and contamination. To mitigate against these modifications have been identified. With regards to noise, a vibratory piling rig will be used to reduce noise pollution above and below water level. All equipment to be checked daily and to have maintenance records to reduce excess noise generation. With regards to contamination, precast concrete caisson units will be used under water to prevent pollution wherever possible. In-situ concreting will be done with care. The fuelling station will be located away from the quay wall with adequate spill kits. All oils and chemicals to be stored in locked containers.

3 Stage 1 AA Screening Summary

The Stage 1 AA Screening has been undertaken by the Marine Institute and is detailed in the *Report supporting the Appropriate Assessment Screening of Foreshore License (FC/15/28) in Burtonport, Co. Donegal*, dated May 2023. This report documented the Stage 1 screening process of the Appropriate Assessment of this proposed activity as specified under the Habitat Directive (European Community (EC) Directive 92/43/EEC).

The proposed site does not overlap with any Natura sites, but is adjacent to 8 SACs (within 15km) and 18 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

- Large shallow inlets and bays [1160]
- Reefs [1170]
- *Phoca vitulina* (Harbour seal) [1365]

SPAs SCI

- Little Tern (*Sterna albifrons*) [A195]

4 Appropriate Assessment (Natura Impact Statement)

This NIS has been prepared as it was not possible at the Screening for AA stage to rule out, as a matter of scientific certainty, that the proposed project will not have a likely significant effect on Natura sites. It will examine and analyse, in light of the best scientific knowledge, how the proposed operations could impact on the Qualifying Features of Natura sites and whether the predicted impacts would adversely affect the integrity of protected sites.

The potential ecological effects of activities on the CO for the site relate to the physical and biological effects of structures and human activities on designated species, intertidal and sub-tidal habitats and invertebrate communities, and biotopes within those broad habitat types. The overall effect on the conservation status will depend on the spatial and temporal extent of activities during the lifetime of the proposed plan and the nature of each of these activities in conjunction with the sensitivity of the receiving environment.

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

- Large shallow inlets and bays [1160]
- Reefs [1170]
- *Phoca vitulina* (Harbour seal) [1365]

SPAs SCI

- Little Tern (*Sterna albifrons*) [A195]

4.1 Assessment methodology

The NPWS has provided in their guidance notes, specifically that relating to marine habitats, detail informing the process and methodology.

4.1.1 Annex 1 Habitats

For the Annex I habitats and their constituent community types, potential effects are identified in relation to, first and foremost, spatial overlap. Subsequent disturbance and the persistence of disturbance are considered.

4.1.1.1 Sensitivity

The sensitivity of a species to a given pressure is the product of the intolerance of the species to a particular pressure, and the time taken for its subsequent recovery. Intolerance is the susceptibility of the species to damage, or death, from an external factor. Life history and biological traits are important determinants of sensitivity of species to pressures.

The following guiding principles broadly underpin the analysis and conclusions of the species and habitat sensitivity assessment:

- Sensitivity of certain taxonomic groups to physical pressures is expected to be generally high or moderate because of their form and structure⁹.
- Sensitivity is expected to be high for species with large bodies and with fragile shells or structures, but low for those with smaller body size. Body size¹⁰ and fragility are regarded as indicative of a high intolerance to physical abrasion. However, even species with a high intolerance may not be sensitive to the disturbance if their recovery is rapid once the pressure has ceased.

The sensitivities of the community types (or surrogates) described within a SAC to pressures are identified with ongoing reference to MarLIN ([link](#)) and MarESA programmes ([link](#)).

4.1.1.2 *Structure and Function*

Structure relates to the characterising species of a community, or the collection of animals that make up that community. Function is considered the process whereby the animals living on and in the seafloor, by virtue of their activities, influence benthic dynamics which is reflective of system health^{11,12}). Such activities or traits are considered in relation to, among others, the organisms feeding type (e.g., scavenger, filter, deposit feeders), mobility, body size, and ability to bioturbate (i.e. introduce oxygen into the sediment). All such traits can result in the removal or conversion of organic matter to biomass (i.e. secondary production). The structure of a community can be dynamic, while still retaining the function.

4.1.1.3 *Disturbance*

Disturbance, in this instance, is meant as that which leads to a change in the structure of the constituent habitat or marine community type. The likelihood of change depends on the sensitivity of the characterising species to the activities in question. There may be persistent disturbance as a result of an activity which may result in a response or change to the structure of the community type, it is expected that (some level of) function will be retained. The confidence around the measure of spatial overlap is considered high because published literature and monitoring outputs identifies that effects are, for the most part, confined to the footprint of the activity in question.

Such disturbance may be temporary or permanent, in the sense that change in characterising species may recover to a pre-disturbed state or may persist. The degree of change is likely a function of the sensitivity of the receiving environment to organic loading, which in turn may be influenced by hydrodynamic conditions in addition to the density of the organisms in culture at the site.

4.1.1.4 *Persistence*

A persistent activity is considered one that occurs with high frequency and/or high intensity, or an activity that occur frequently and throughout the year. If the activities are persistent and the receiving community has a high intolerance to the activity (i.e., the characterising species of the

⁹ Roberts, C., et al., (2010) Review of existing approaches to evaluate marine habitat vulnerability to commercial fishing activities. Report to the Environment Agency from the Marine Life Information Network and ABP Marine Environmental Research Ltd. Environment Agency Evidence Report: SC080016/R3. Environment Agency, Peterborough. Available from <https://www.marlin.ac.uk/publications>

¹⁰ Bergman, M.J., & Santbrink, J.W. (2000). Mortality in megafaunal benthic populations caused by trawl fisheries on the Dutch continental shelf in the North Sea in 1994. *Journal of Materials Science*, 57, 1321-1331. 10.1006/JMSC.2000.0917

¹¹ Bolam, S.G., et al., (2002). Diversity, Biomass, and Ecosystem Processed in the Marine Benthos. *Ecological Monographs*, 72: 599-615. [https://doi.org/10.1890/0012-9615\(2002\)072\[0599:DBAEPI\]2.0.CO;2](https://doi.org/10.1890/0012-9615(2002)072[0599:DBAEPI]2.0.CO;2)

¹² Solan, M., et al., (2004). Extinction and Ecosystem Function in the Marine Benthos. *Science*. 306: 1177-1180. <https://doi.org/10.1126/science.1103960>

communities are sensitive and consequently impacted) then such communities could be said to be persistently disturbed.

4.1.1.5 Recoverability

Recoverability of species depends on biological traits¹³ such as reproductive capacity, recruitment rates and generation times. Species with high reproductive capacity, short generation times, and high mobility or dispersal capacity may maintain their populations even when faced with persistent pressures; but such environments may become dominated by these (r-selected) species.

Slow recovery is correlated with slow growth rates, low fecundity, low and/or irregular recruitment, limited dispersal capacity and long generation times. Recoverability, as listed by MarLIN, assumes that the impacting factor has been removed or stopped and the habitat returned to a state capable of supporting the species or community in question. The recovery process is complex and therefore the recovery of one species does not signify that the associated biomass and functioning of the full ecosystem has recovered^{14,15}.

For persistent pressures, recovery capacity may be of little relevance except for species or habitats that may have extremely rapid (days or weeks) recovery capacity or whose populations can reproduce and recruit in balance with population damage caused. In all but these cases, and if sensitivity is moderate or high, then the species or habitats may be negatively affected and will exist in a modified state. Such interactions between activities and species, or habitat, or community represent persistent disturbance. They become significantly disturbing if more than 15% of the community is thus exposed^{16,17}.

In the case of episodic pressures (i.e. activities that are seasonal or discrete in time) both the intolerance and recovery components of sensitivity are relevant. If sensitivity is high but recoverability is also high relative to the frequency of application of the pressure, then the species, habitat, or community will be in favourable conservation status (FCS) for at least a proportion of time.

4.1.1.6 Significance

The significance of adverse effects is determined on likely impacts of proposed activities on conservation features allied with CO guidance for constituent community types. The guidance is scaled relative to the anticipated sensitivity of habitats and species to disturbance by activities. Some activities are deemed to be wholly inconsistent with long term maintenance of certain sensitive habitats while other habitats can tolerate a range of activities.

For the practical purpose of management of seabed habitats, other than sensitive habitats such as Maërl-dominated communities, a 15% threshold of overlap between a disturbing activity and the community type is established in the NPWS guidance¹⁸. Below this threshold, disturbance is deemed

¹³ Tillin, H.M., et al. (2006) Chronic bottom trawling alters the functional composition of benthic invertebrate communities on a sea-basin scale. *Marine Ecology Progress Series*, 318: 31-45. <https://doi.org/10.3354/meps318031>

¹⁴ Anand, G. and Ward, P.T. (2004), Fit, Flexibility and Performance in Manufacturing: Coping with Dynamic Environments. *Production and Operations Management*, 13: 369-385. <https://doi.org/10.1111/j.1937-5956.2004.tb00224.x>

¹⁵ Hall, K., Paramor, O.A.L., Robinson L.A., Winrow-Giffin, A., Frid C.L.J., Eno, N.C., Dornie, K.M., Sharp, R.A.M., Wyn, G.C. & Ramsay, K. 2008. Mapping the sensitivity of benthic habitats to fishing in Welsh waters- development of a protocol. CCW [Policy Research] Report No: [8/12], 85pp.

¹⁶ ETC/BD (2014). Article 17 Reporting – Assessments of conservation status at the EU biogeographical level - Public consultation. ETC/BD Technical paper 3/2014, Paris.

¹⁷ NPWS (2013) Rutland Island and Sound SAC (site code: 002283) Conservation objectives supporting document- Marine Habitats and Species. Department of Environment, Heritage and Local Government (Link)

¹⁸ NPWS (2013) Rutland Island and Sound SAC (site code: 002283) Conservation objectives supporting document- Marine Habitats and Species. Department of Environment, Heritage and Local Government (Link)

to be non-significant. Where disturbance (continuous or ongoing) is greater than 15% of the defined area of Habitat QI or Marine Community Type, it is deemed to be significant. For the assessment, the 15% threshold:

- applies to the habitats or constituent community types that are overlapped by disturbing activities,
- and is considered in-combination with all other activities,
- and is considered cumulatively with all other likely disturbing activities.

To this end, it would be important to identify, as much as practicable, other such activities in the relevant SAC. Figure 3 shows a schematic outlining the determination of significant effects on marine habitats and marine community types.

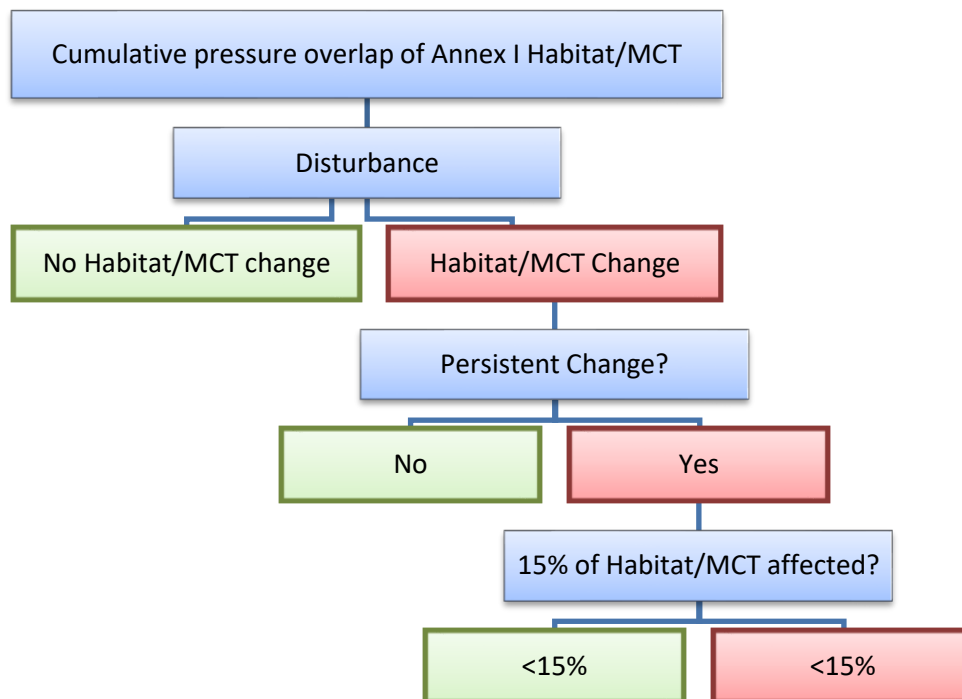


Figure 3 Schematic outlining the determination of likely significant effects on habitats and marine community types (MCT) (following NPWS guidelines).

4.1.1.7 The Process

Where available, the sensitivities to pressures are identified for the:

- community types (or surrogates) - described within a SAC.
- species which are characteristic of benthic communities - as listed in the Conservation Objective supporting document.

For the Annex I habitats and their constituent community types, potential effects are identified in relation to, first and foremost, spatial overlap. Subsequent disturbance and the persistence of disturbance are considered as follows:

- The sensitivity of a community to a given pressure.
- The conservation of functionality of the community.
 - It is expected, in spite of the potential change in characterising species, that certain functions are retained by the benthic communities, such that effects deriving from the activities are alleviated.

- The degree to which the activity will disturb the habitat.
 - While there may be persistent disturbance as a result of an activity which may result in a response or change to the structure of the marine community type, it is expected that (some level of) function will be retained.
- The persistence of the disturbance in relation to the intolerance of the community.
 - If the activities are persistent and the receiving community has a high intolerance to the activity, then such communities could be said to be persistently disturbed.
- The ability of a community to recover from disturbance.
- The significance of the disturbance on the community.
 - In the event that disturbance is greater than 15% of the defined area of Habitat QI or Marine Community Type, it is deemed to be significant.

No activity is likely to be allowed or to result in the total exclusion or extirpation of marine community type within the SAC. In addition, overlap on those, mostly biogenic habitats defined as sensitive marine community types (e.g., maërl, seagrasses) is not considered acceptable, given the sensitivity of these communities to bioturbations.

4.1.1.8 Community Complexes

It must be noted that the NPWS, in their guidance notes, have acknowledged that given the wide range of community types that can be found in marine environments, the application of conservation targets to these would be difficult. On this basis, they have proposed broad community complexes as management units. These complexes (for the most part) are very broad in their description and do not have clear surrogates which might have been considered in targeted studies and thus reported in the scientific literature. On this basis, the confidence assigned to likely interactions of the community types with anthropogenic activities are by necessity relatively low, with the exception of community types dominated by sensitive taxa, such as Maërl and Zostera.

4.1.1.9 Sources

This assessment report refers to a number of sources of information in assessing the sensitivity of the characterising species of the community types recorded within the habitat QIs. A series of reviews commissioned by the Marine Institute which identify habitat and species sensitivity to a range of pressures that are likely to result from aquaculture and fishery activities are utilised¹⁹. These reviews draw from the broader literature, including the MarLIN Sensitivity Assessment²⁰, the AMBI Sensitivity Scale²¹, FEAST²² and other primary literature. Subsequent literature and reports also provide more recent sources of information on likely interactions^{23,24,25}.

¹⁹ABPMer. Reports 2013. Tools for appropriate assessment of fisheries and aquaculture activities in Marine and Coastal Natura 2000 sites. Reports I to VII. Marine Institute, Ireland [Link](#)

²⁰ <https://marlin.ac.uk/>

²¹ Borja, A., Franco, J. & Pérez, V. 2000. A marine biotic index of establish the ecological quality of soft-bottom benthos within European estuarine and coastal environments. *Marine Pollution Bulletin*. 40: 1100 – 1114.

²² <http://www.marine.scotland.gov.uk/FEAST/Index.aspx>

²³ Tyler-Walters, H. and Arnold, C., 2008. Sensitivity of Intertidal Benthic Habitats to Impacts Caused by Access to Fishing Grounds. Report to Cyngor Cefn Gwlad Cymru / Countryside Council for Wales from the Marine Life Information Network (MarLIN). Marine Biological Association of the UK, Plymouth.

²⁴ Tyler-Walters, H., Tillin, H.M., d'Avack, E.A.S., Perry, F., Stamp, T., 2018. Marine Evidence-based Sensitivity Assessment (MarESA) – A Guide. Marine Life Information Network (MarLIN). Marine Biological Association of the UK, Plymouth, pp. 91. [Link](#)

²⁵ Tyler-Walters, H., Williams, E., Mardle, M.J. & Lloyd, K.A., 2022. Sensitivity Assessment of Contaminant Pressures - Approach Development, Application, and Evidence Reviews. MarLIN, Marine Biological Association of the UK, Plymouth, pp. 192. [Link](#)

4.1.2 Annex II Species and Birds

For the Annex II species and birds, potential effects are identified in relation to potential impacts for the proposed activity and if there is a potential for an adverse effect on any of the QIs/SCI of the Natura sites in view of their conservation objectives. With the general aim being to maintain or restore the favourable conservation status of species of community interest, the following impacts are considered.

- Impact to the habitat extent so that there is sufficiently large habitat to maintain its populations on a long-term basis.
- Impact to the ability for the species to maintain its population dynamics on a long-term basis as a viable component of its natural habitats.
- Impact to the structure and functions which are necessary for long-term maintenance of the species.
- Impact to the natural range of the species.
- Impact to the favourable conservation status of species.

To assess the effects on the integrity of the site, it is considered²⁶ if the plan or project has the potential to:

- Hamper or cause delays in progress towards achieving the site's conservation objectives.
- Reduce the area, or quality, of protected habitats of protected species present on the site.
- Reduce the population of the protected species significantly present on the site.
- Result in disturbance that could affect the population size or density or the balance between species.
- Cause the displacement of protected species significantly present on the site and thus reduce the distribution area of those species in the site.
- Result in a fragmentation of habitats of species.
- Result in a loss or reduction of key features, natural processes or resources that are essential for the maintenance or restoration of species in the site.
- Disrupt the factors that help maintain the favourable conditions of the site or that are needed to restore these to a favourable condition within the site.
- Interfere with the balance, distribution and density of species that are the indicators of the favourable conditions of the site.

Spatial overlap, and subsequent disturbance and the persistence of disturbance are considered.

4.1.2.1 The Process

For the Annex II species and birds the CO, along with their attributes and targets are identified. Information on the populations present within the Natura site, their distribution and activities within the site are identified, where available, or information on their likely interactions with the Natura site are detailed.

Potential effects are considered in relation to the QI and the conservation objectives, considering if the pathway of connectivity between the QI and the sources of potential impacts associated with the activity is significant to cause adverse effects. Multiple factors are considered depending on the species and their behaviours, but elements that are generally considered include: spatial overlap;

²⁶ European Commission, DGEnv, Guidance document on assessment of plans and projects in relation to Natura 2000 sites : a summary, Publications Office of the EU, 2022 [Link](#)

distance to proposed activities, potential of the project to effect suitable habitat; the likelihood of interactions between the species and the activity; persistence of disturbance; the degree to which the activity will disturb the habitat; the significance of the disturbance on the community.

4.2 Potential Impacts of the Proposed Development

As described in Assessment of Activities in this report, this project involves a proposal to construct a slipway at Burtonport pier, Co. Donegal. The section considers the potential significant impacting pressures from the project on the QIs carried forward for full assessment.

4.2.1 Loss of Habitat

The footprint of the proposed development is located at the edge of the Rutland Islands and Sound SAC (002283). The proposed development site has a physical footprint of approximately 410 m². There will not be a direct loss of marine habitat within the SAC.

4.2.2 Sediment Contamination and Impacts on Water Quality

Concrete or sediment may discharge or escape into the rising tide and surface water run-off into the water column during the construction phase of the project. Escape of sediment has the potential to release contaminants, such as silt, hydrocarbons or other chemicals, or spillage from machinery. This can pose a risk to water quality and habitats, through increased turbidity in water reducing light penetration and interfere with feeding of aquatic organisms (particularly suspension or filter feeders), as well as containing potentially harmful pollutants. It can also alter, smother or bury habitats or communities^{27,28,29}.

In this instance, it is expected that any of the works involving concrete will take place above the high-water mark so there is limited potential for this contamination. In addition, this is a relatively small construction project with the potential minor amounts of sediment contamination and considering the dilution factor (discharge into the open ocean), sediment contamination is not considered to be likely to cause adverse effect to the Natura site.

4.2.3 Impacts from Noise and Disturbance

Potentially increased noise and disturbance associated with the site works could cause disturbance or displacement of fauna^{30,31}. Precast construction techniques are suggested to be used. The proposed development is located within a pre-existing and functional pier so there is already an element of anthropogenic disturbance, which is likely to be at a similar level following the construction phase, with which the fauna present are already subject to and tolerant of.

The noise and disturbance from the construction will have a relatively small zone of influence and attenuate rapidly. The project works will be for a relatively short period of time. They are likely to have

²⁷ Thrush, S. F., Hewitt, J. E., Cummings, V. J., Ellis, J. I., Hatton, C., Lohrer, A., & Norkko, A. (2004). Muddy Waters: Elevating Sediment Input to Coastal and Estuarine Habitats. *Frontiers in Ecology and the Environment*, 2(6), 299–306. Link

²⁸ Jones, J.I., Murphy, J.F., Collins, A.L., Sear, D.A., Naden, P.S. and Armitage, P.D. 2012. The impact of fine sediment on macro-invertebrates. *River Res. Applic.*, 28: 1055-1071. Link

²⁹ Miller DC, Muir CL, Hauser AH. 2002. Detrimental effects of sedimentation on marine benthos: what can be learned from natural processes and rates? *Ecological Engineering*, Vol 9; 3. pp211-232. Link

³⁰ Kight CR, Swaddle JP. 2011. How and why environmental noise impacts animals: an integrative, mechanistic review. *Ecol Lett.*(10):1052-61. doi: 10.1111/j.1461-0248.2011.01664.x.

³¹ Arcangeli G, Lulli LG, Traversini V, De Sio S, Cannizzaro E, Galea RP, Mucci N. 2022. Neurobehavioral Alterations from Noise Exposure in Animals: A Systematic Review. *Int J Environ Res Public Health*. 20(1):591. doi: 10.3390/ijerph20010591.

a negligible effect on any QIs (e.g., Harbour Seal) capacity to forage; thus, disturbance or displacement of fauna will be negligible.

4.2.4 Impacts on Local Hydrodynamic Conditions

During the operational phase there could be localised changes in hydrodynamic regime due to the installed structures altering local sediment depositional or erosional processes and thereby affecting nearby benthic community types³².

The proposed development site, which has a small physical footprint of approximately 410 m², is located in a relatively confined shallow low energy environment. The work is to an already existing pier. Given the combination of shallow confined water and small physical footprint, it is not likely that the proposed works will alter tide dynamics and/ or alter coastal or depositional or erosional processes and the structure of nearby sedimentary habitats. Therefore, no impact from changes in hydrodynamic conditions is predicted to occur.

4.3 Impact statement of proposed activities on Annex I Habitats QIs

The following Annex I Habitats QIs are in the zone of influence of the project.

- Large shallow inlets and bays [1160]
- Reefs [1170]

Figure 4 shows the detailed locations of the habitats within the SAC and the vicinity of the project.

³² Foulquier C, Baills J, Arraud J, D'Amico F, Blanchet H, Rihouey D, Bru N. 2020. Hydrodynamic Conditions Effects on Soft-Bottom Subtidal Nearshore Benthic Community Structure and Distribution. *Journal of Marine Sciences*, vol. 2020, Article ID 4674580, p16. [Link](#)

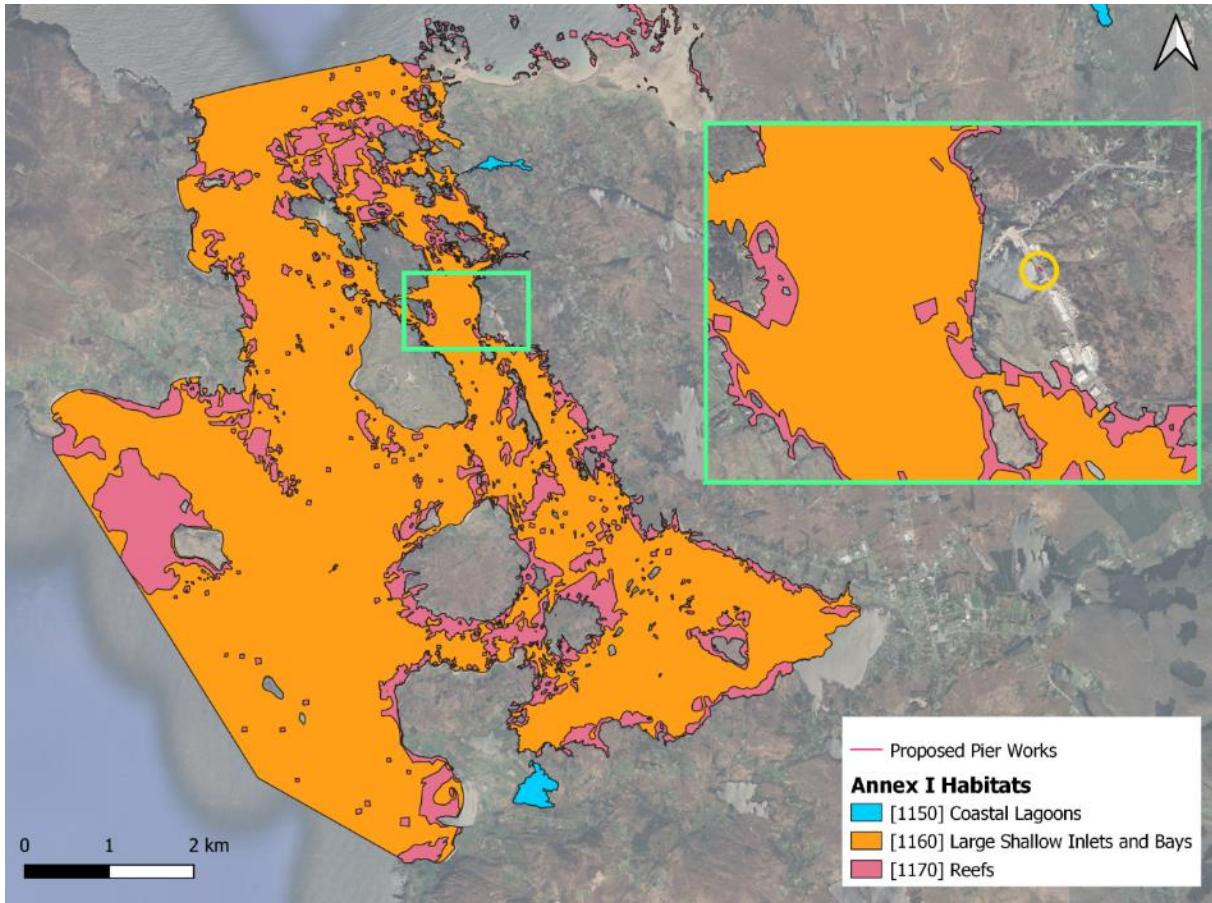


Figure 4 Habitat map in vicinity of project site. Coastal Lagoons [1150] are over 1km from the project site and not included in the Stage 2- Appropriate Assessment due to lack of interaction pathways. Project in yellow circle. Basemap: Google Satellite 2023

4.3.1.1 Large Shallow Inlets and Bays [1160]

The Conservation Objective for Large shallow inlets and bays in Rutland Island and Sound SAC is to maintain the favourable conservation condition. details the attributes and targets this QI within the Rutland Island and Sound SAC.

Table 1 List of attributes and targets for the Large shallow inlets and bays [1160] at Rutland Island and Sound SAC

Attribute	Target
Habitat area	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Maintain the extent of the <i>Zostera</i> -dominated community, subject to natural processes
Community structure - <i>Zostera</i> density	Maintain the extent of the <i>Zostera</i> -dominated community, subject to natural processes
Community structure - <i>Zostera</i> density	Conserve the high quality of the <i>Zostera</i> -dominated community, subject to natural processes
Community distribution	Conserve the following community types in a natural condition: Coarse sediment with crustaceans community complex; Sand with <i>Tellina</i> sp. and <i>Perioculodes longimanus</i> community complex; Intertidal reef community, <i>Laminaria</i> -dominated community complex.

This Large Shallow Inlets and Bays QI is situated from $\approx 177\text{m}$ from the proposed project site, which is outside this SAC. The marine community types of interest are distributed across the QI, therefore most are further removed from the project site. The project does not propose to permanently remove any habitat from the SAC.

Figure 5 provides detail of the locations of marine community types within the SAC, in relation to the proposed project, which is located adjacent to the SAC.

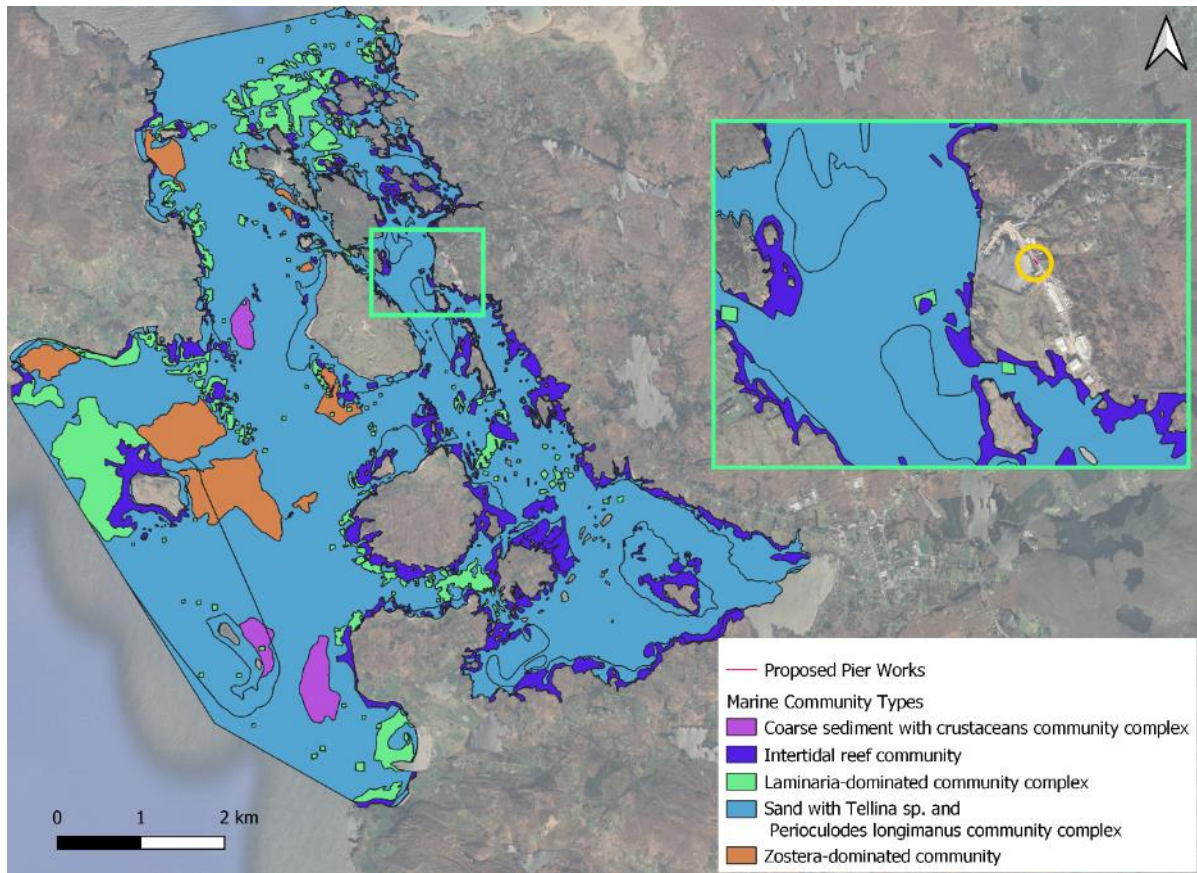


Figure 5 Marine community types within the Rutland Island and Sound SAC. Proposed project site in yellow circle.

The Coarse sediment with crustaceans community complex was recorded in the South Sound between Illancrone and Termon in depths between 0m and 18m. The distinguishing species of this community includes the crustaceans *Dexamine spinosa*, *Ericthonius* sp., *Gammaropsis* sp., *Ericthonius punctatus*, and harpacticoid copepods, the polychaete *Platynereis dumerilii* and the bivalve *Musculus subpictus*, all of these species occur in low abundances throughout the community. The serpulid polychaetes *Spirobranchus* sp. and *Spirobranchus triqueter* are recorded in very high abundances in the southern part of the South Sound. The closest record of this community complex is 2.4 km from the proposed project site, due to the distance from the proposed site there is no S-P-R pathway and no potential for adverse effect.

Laminaria-dominated community complex occurs extensively throughout this site in depths of between 0m and 24m. The species associated with this community complex are the kelp *Laminaria hyperborea*, encrusting calcareous red algae and the polychaete *Spirobranchus* sp. and the red algae *Dilsea carnosa*. Where this community complex occurs on bedrock the echinoderms *Luidia* sp. and *Echinus esculentus* and unidentified sponges are also recorded. On cobble and boulder substrates the kelp *Saccharina latissima*, the red algae *Delesseria sanguinea* and *Dilsea carnosa* and the polychaete

Spirobranchus sp. occur while the echinoderm *Marthasterias glacialis* is recorded from the mosaic substrates of bedrock, cobbles and boulders. In Rutland Sound, the ascidians *Clavelina lepadiformis*, *Aplidium pallidum* and *Aplidium punctum* and the sponge *Polymastia mamillaris* and *P. boletiformis* are commonly recorded; in the southern channel the ascidian *Clavelina lepadiformis* is recorded as abundant. In those areas where the distribution of *Laminaria hyperborea* is less dense, unidentified sponges, the anemone *Anemonia viridis*, the crustacean *Liocarcinus* sp. and the brown algae *Halidrys siliquosa* occur. The anemones *Anemonia viridis* and *Anthopleura* sp. and the kelp *Saccharina latissima* are also recorded in the south of the site at Illancrone. The brown algae *Eudesme* sp., *Chorda filum* and *Taonia atomaria*, the sponge *Halichondria (Halichondria) panacea*, the bryozoan *Alcyonidium diaphanum* and the ascidians *Stolonica socialis* and *Diplosoma spongiforme* are recorded from this community complex. The closest record of the intertidal reef community is 310 m from the proposed project site. Considering the size and duration of the project, and the distance of this QI, and that the work will be conducted at low water, and with the currents and dilution in the bay, there should not be any inputs to the bay. Therefore, there is no pressure pathway and this project will not have an adverse impact on the extent, structure, distribution or permanency of this QI.

Sand with *Tellina* sp. and *Periocolodes longimanus* community complex occurs intertidally and subtidally throughout the site. It is recorded in depths of between 0m to 28m. It consists of predominantly fine to very fine sand, coarser sediments are found in the southwest and northwest. The distinguishing species of this community are the bivalves *Tellina* sp. and *Angulus fabula*, the amphipods *Periocolodes longimanus*, *Megaluropus agilis*, *Siphonoecetes (Centraloecetes) kroyeranus* and *Bathyporeia* sp. and the polychaete *Nephtys cirrosa*. These species generally occur in moderate to low abundances but are not ubiquitous within the community complex. *Tellina* sp. occurs in high abundances in the coarse sediment in the southwest of the site. The anemones *Anthopleura ballii* and *Urticina felina* were recorded buried in sand, while the anemone *Cereus pedunculatus* occurred in coarse areas. The bivalve *Ensis magnus* and the echinoderm *Echinocardium cordatum* were recorded from south east of Cloghcor Point. The mysid crustacean *Paramysis nouveli* which is known from the south coast of England and the west coast of Scotland is recorded here; this is a first record for this species in Irish waters. The closest record of Sand with *Tellina* sp. and *Periocolodes longimanus* community complex is 177 m from the proposed project site. Considering the size and duration of the project, and the distance of this QI, and that the work will be conducted at low water, and with the currents and dilution in the bay, there should not be any inputs to the bay. Therefore, there is no pressure pathway and this project will not have an adverse impact on the extent, structure, distribution or permanency of this QI.

The *Zostera*-dominated community occurs in discrete areas within the SAC from depths between 1m and 6m. Eelgrass can be negatively affected by excessive sedimentation and/or nutrient pollution. The closest record of *Zostera marina* is 1.6 km, in a straight line, noticeably obstructed by Rutland Island so there is no S-P-R pathway and no potential for adverse effect.

The footprint of the project site is 410 m². Considering the size and duration of the project, and the 170 m distance of this QI, and that the work will be conducted at low water, and with the currents and dilution in the bay, there should not be any inputs to the bay. Therefore, there is no pressure pathway and this project will not have an adverse impact on the extent, structure, distribution or permanency of the QI 1160, its habitat area and its constituent Marine Community Types.

4.3.1.2 Reefs [1170]

The Conservation Objective is to maintain favourable condition of Reefs in Rutland Island and Sound SAC. Table 2 List of attributes and targets for the Reefs [1170] at Rutland island and Sound SAC details the attributes and targets for Reefs [1170] within the Rutland island and Sound SAC. Figure 8 provides detail of the location of this marine community type within the SAC.

Table 2 List of attributes and targets for the Reefs [1170] at Rutland island and Sound SAC

Attribute	Target
Habitat area	The permanent habitat area is stable or increasing, subject to natural processes
Distribution	The distribution of reefs remains stable, subject to natural processes
Community structure	Conserve the following community types in a natural condition: Intertidal reef community; <i>Laminaria</i> -dominated community complex

This Reefs QI is situated ~180m from the proposed project site, which is outside this SAC. The marine community type of interest is distributed across the QI. The project does not propose to permanently remove habitat from the SAC.

This intertidal reef community occurs extensively throughout the site in exposure regimes ranging from sheltered to moderately exposed shores. The bedrock on which it is recorded is generally steep in profile, however in sheltered coves and inlets it is flat or gently sloping. The species associated with this reef community are the brown algae *Pelvetia canaliculata*, *Ascophyllum nodosum* and *Fucus vesiculosus*, the gastropods *Littorina* sp. and *Patella vulgata*, the lichens *Verrucaria maura* and *Ramalina siliquosa*. These species are ubiquitous throughout the community. The epiphytic red alga *Vertebrata lanosa* is recorded from the stipes of *F. vesiculosus*. The gastropod *Nucella lapillus* occurs on more exposed shores in the south and north of the site, while encrusting calcareous red algae, the barnacle *Semibalanus balanoides* and the gastropod *Gibbula cineraria* are recorded from boulders and cobbles in the south of the site. The closest record of the intertidal reef community is 180m from the proposed project site.

The *Laminaria*-dominated community complex occurs extensively throughout this site in depths between 0-24m. The species associated with this community complex are the kelp *Laminaria hyperborea*, encrusting calcareous red algae and the polychaete *Spirobranchus* sp. and the red algae *Dilsea carnosa*. Where this community complex occurs on bedrock the echinoderms *Luidia* sp. and *Echinus esculentus* and unidentified sponges are also recorded. On cobble and boulder substrates the kelp *Saccharina latissima*, the red algae *Delesseria sanguinea* and *Dilsea carnosa* and the polychaete *Spirobranchus* sp. occur while the echinoderm *Marthasterias glacialis* is recorded from the mosaic substrates of bedrock, cobbles and boulders.

In Rutland Sound, the ascidians *Clavelina lepadiformis*, *Aplidium pallidum* and *Aplidium punctum* and the sponge *Polymastia mamillaris* and *P. boletiformis* are commonly recorded; in the southern channel the ascidian *Clavelina lepadiformis* is recorded as abundant.

In those areas where the distribution of *Laminaria hyperborea* is less dense, unidentified sponges, the anemone *Anemonia viridis*, the crustacean *Liocarcinus* sp. and the brown algae *Halidrys siliquosa* occur. The anemones *Anemonia viridis* and *Anthopleura* sp. and the kelp *Saccharina latissima* are also recorded in the south of the site at Illancrone.

The brown algae *Eudesme* sp., *Chorda filum* and *Taonia atomaria*, the sponge *Halichondria* (*Halichondria*) *panacea*, the bryozoan *Alcyonidium diaphanum* and the ascidians *Stolonica socialis* and *Diplosoma spongiforme* are recorded from this community complex.

The footprint of the project site is 410 m². There is no direct spatial overlap. Considering the size and duration of the project, and the distance at 180 m from this QI, and that the work will be conducted at low water, and with the currents and dilution in the bay, there should not be any inputs to the bay. Therefore, there is no pressure pathway and this project will not have an adverse impact on the extent, structure, distribution or permanency of the QI 1170 and its marine community types and overall habitat area.

4.4 Impact of the proposed activities on Annex II Species QIs

4.4.1.1 Harbour Seal (*Phoca vitulina*) [1365]

The Rutland Island and Sound SAC is designated for the QI [1365] Harbour seal, with a COs to maintain the favourable conservation condition. Table 3 details the attributes and targets for Harbour Seal [1365] within the Rutland Island and Sound SAC.

Table 3 List of attributes and targets for the Harbour seal [1365] at Rutland Island and Sound SAC

Attribute	Target
Access to suitable habitat	Species range within the site should not be restricted by artificial barriers to site use
Breeding behaviour	Conserve the breeding sites in natural conditions
Moulting behaviour	Conserve the moult haul-out sites in a natural condition
Resting behaviour	conserve the resulting haul-out sites in a natural condition
Disturbance	Human activities should occur at levels that do not adversely affect the harbour seal population at the site

The sites with records of seal usage within the SAC are shown in Figure 6, along with the project site.

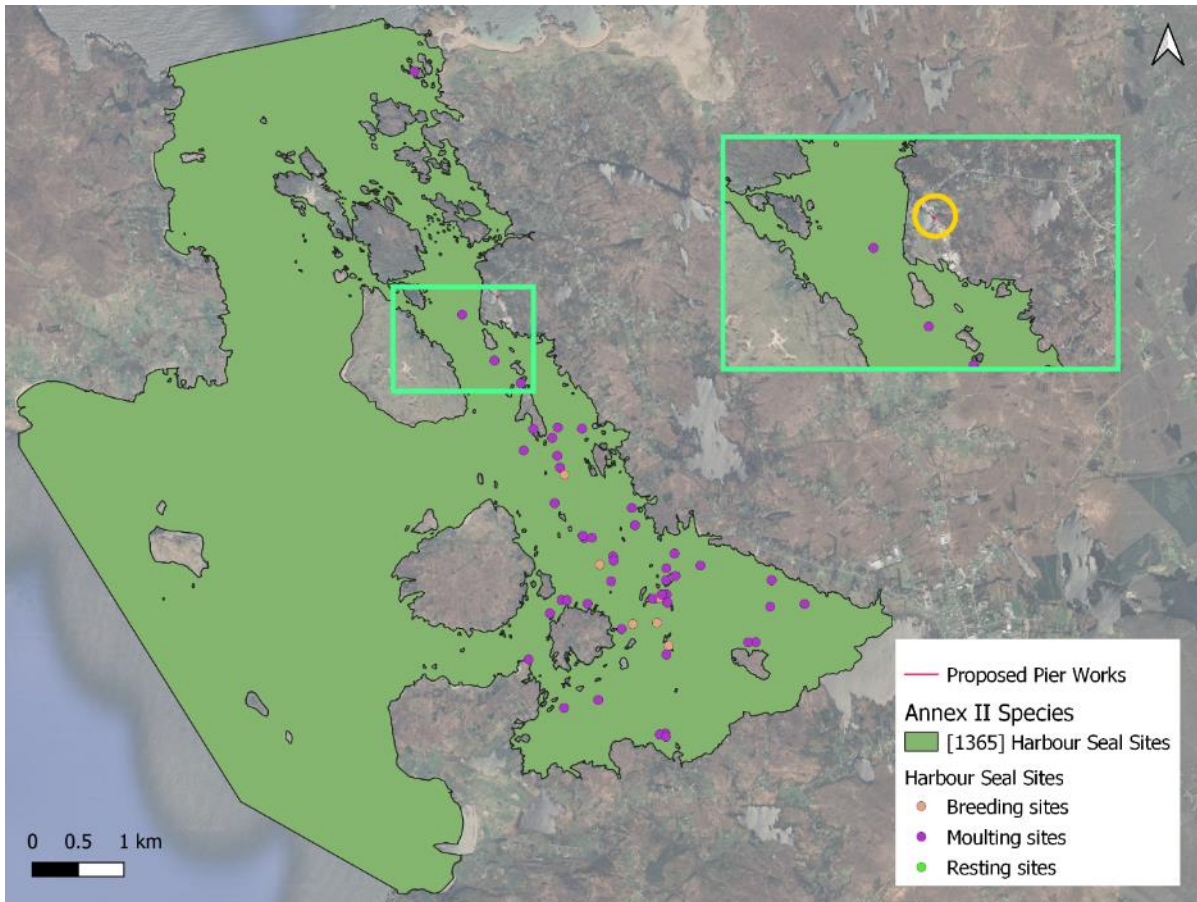


Figure 6 Distribution of Harbour Seal sites for breeding, moulting and resting in Rutland Island and Sound SAC. Proposed site in yellow circle.

The risk of negative interactions between the project and aquatic mammal species is a function of:

- The location of the project.
- The infrastructure built.
- The process of construction.
- Noise of disturbance from operations.

The closest recorded moulting site is approximately 400m and breeding site ~2.5 km from the project site (measured in a straight line) (Figure 6). As the project site is currently an active harbour, with considerable anthropological activity, it is expected that harbour seal will already be accustomed to these activities, so there is negligible likelihood of disturbing of Harbour seal from the works. The proposed works to a current pier, will not hinder access to suitable habitat for breeding, moulting behaviour, or resting for Harbour seal. Noise from the project will be mainly during the construction phase, which is a short period of time, and in a location where there is already significant activity. Sound will attenuate rapidly, as work will be above the water line, being conducted at low water. It is noted that the current conservation status of harbour seal nationally is favourable.

Significant adverse effects on the QI Harbour Seal can be discounted on the basis that the proposed project will not lead to any modification of the extent of marine habitat and will not affect the number of couching sites and holts. The activity will have no negative impact on the essential food base (fish biomass) available, and the work at the site allows free movement through and within the area.

Therefore, this project will not pose an adverse risk to the Harbour Seal populations, distribution or extent in the Rutland Island and Sound SAC.

4.5 Impact of the proposed activities on Annex II Species SCIs

The objective is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests (SCI) for this SPA. The favourable conservation status of a species is achieved when:

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

4.5.1 Little Tern (*Sterna albifrons*) [A195]

Little Tern are a rare summer visitor from April to late August to shingle or sandy beaches. They feed mainly on small fish, foraging in very shallow water only a few centimetres deep, often over the advancing tideline or in brackish lagoons and saltmarsh creeks. Areas subjected to strong human pressure are avoided. Nest colonially on the ground on shingle beaches, making them very vulnerable to poor weather and ground predators. Only a few colonies are found in Ireland, with the majority breeding in Counties Louth, Wicklow and Wexford. The proposed site is not suitable for foraging or breeding of little tern. They do not winter in Ireland. The project site is located >3 Km from the SPA for this species and is does not have habitat suitable for this species. It is also a working pier with ongoing anthropogenic activity. The effects from the construction and operation of the project will be very local and of short duration. Therefore, there is no pressure pathway and there will not be a significant adverse effect on the population, natural range, or available habitat on this SCI from the proposed project.

4.6 Assessment of Potential Effects of Non-native Species

No invasive species were recorded within the proposed development site and no impact from the spread of invasive species is expected to occur as a result of movement of material and equipment into the site.

4.7 Consideration of Cumulative Effects

There are no other marine projects that could have the potential to give rise to cumulative impacts with this works.

5 Conclusion

This is an Appropriate Assessment Natura Impact Statement (NIS) document supporting the Appropriate Assessment of foreshore activities near the Natura 2000 site: Rutland Island and Sound SAC (site code 002283). The Marine Institute has been requested to review an application for foreshore activities for the refurbishment of the quay wall at Burtonport Pier, Co. Donegal.

The site is not located within any Natura 2000 sites but was identified as potentially having 8 SACs and 18 SPAs within the zone of influence of the project.

Following a Stage 1 AA Screening process, the following were screened in as QIs that the planned project has potential to overlap with or and have the potential to significantly affect, and so were carried forward for full assessment:

SAC QIs

- Rutland Island and Sound SAC [002283]
 - Large shallow inlets and bays [1160]
 - Reefs [1170]
 - *Phoca vitulina* (Harbour seal) [1365]

SPA QIs

- Illancrone and Inishkeeragh SPA [004132]
 - Little Tern (*Sterna albifrons*) [A195]

The potential impacts from the proposed project could arise during the construction and operational phase of the project. The designated QI could be impacted in relation to loss of habitat sediment contamination and water quality; noise and disturbance; and hydrodynamics.

The potential impacts have been assessed and it has been objectively concluded following best available information, objective criteria, best scientific knowledge and expert judgement, that the proposed project will not pose a risk of adversely affecting (either directly or indirectly) the integrity of Natura sites, either alone or in combination with other plans and projects.