

**APPROPRIATE ASSESSMENT
SCREENING REPORT and NATURA IMPACT STATEMENT**

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

Proposed Maintenance Dredging and Dumping At Sea
Buncrana Pier, Co. Donegal.

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16 December 2025

For: Ayesa

On behalf of: Donegal County Council

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1.0 Introduction

This Screening and Natura Impact Assessment Report has been prepared by Jessica Devlin, Project Management and Environmental Services for Ayesa and Donegal County Council for the purpose of statutory permissions pertaining to proposed maintenance dredging and dumping at sea at Bunrana, Co. Donegal. This report has been compiled to provide the competent authority with adequate information to make an appropriate assessment of the Project under Article 6(3) of the Habitat Directives. It describes the proposed project and the receiving environment. The zone of likely influence will be identified and any Natura 2000 sites within that zone will be identified. Any possible negative direct or indirect impacts on the Qualifying Interests (QI) of the Natura 2000 sites will be identified and the significance of the impacts will be assessed. The purpose of the NIS is to provide an examination, analysis and evaluation of the potential impacts of the proposed development on Natura 2000 sites and to present findings and conclusions with respect to the proposed development in light of the best scientific knowledge in the field. It considers the implications of the proposed project, on its own and in combination with other plans or projects, for Natura 2000 sites in view of the conservation objectives of those sites. It includes a scientific examination of evidence and data to identify and assess the implications of the proposed development for any Natura 2000 sites in view of the conservation objectives of those sites. It considers whether the proposed development, by itself and in combination with other plans or projects, would adversely affect the integrity of Natura 2000 sites. In reaching a conclusion in this regard, consideration is given to any mitigation measures necessary to avoid or reduce any potential negative impacts.

This report follows the methodology set out in the Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4), E.C., 2002.

1.1 Screening and Appropriate Assessment

The introduction of the EU Birds Directive and the Habitats Directive in 1979 and 1992 respectively, made member states legally obliged to establish a Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species. This comprises Special Areas of Conservation (SACs, including candidate SACs), and Special Protection Areas (SPAs, including proposed SPAs). SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.

Articles 6(3) and 6(4) of the Habitat Directive 92/43/EEC require an Appropriate Assessment of plans and projects to prevent significant adverse effects on Natura 2000 sites. The Assessment must determine whether the plan or project is likely to have significant effects on the site and whether these effects will adversely affect the integrity of the site in terms of its nature conservation objectives.

Article 6(3) of the Habitats Directive states that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

The assessment can be broken down into 4 main stages:

Stage 1 - Screening: Results of preliminary impact identification and assessment of significance of impacts.

Stage 2 - Appropriate Assessment: Assessment of the impact on the integrity of the site(s) and assessment of mitigation measures (NIS Report).

Stage 3 - Assessment of alternative solutions.

Stage 4 - Imperative Reasons of Overriding Public Interest (IROPI): IROPI test and assessment of compensatory measures.

2.0 Statement of authority

Jessica graduated from the National University of Ireland, Galway in 1997 with a BSc. honours degree in Geology and obtained a MSc. in Applied Environmental Science from Queens University Belfast in 2001. She attained a National Certificate in Eco-Tourism, from Sligo Institute of Technology in 2005 and in 2014 completed Geographical Information Systems for Environmental Investigations, University College Dublin.

Over the years, Jessica has gained a wide range of experience in research, consultancy and project management with particular emphasis on sustainable development in freshwater, marine and coastal environments.

As field scientist with the Queens University Marine Station in Portaferry, Jessica carried out habitat surveys with respect to the decline of salmonid populations in Northern Ireland Rivers. She progressed to research assistant with Queens University and the Department of Agriculture & Rural Development. As project manager for the Donegal County Council - Marine & Water Leisure Programme, she managed projects on sustainable development of the marine leisure product. Jessica also worked with the University College Cork Coastal and Marine Research Centre in partnership with Donegal County Council and the University of Ulster, as manager of the Donegal element of a North West Europe Interreg Project called IMCORE (Innovative Management of Europe's Changing Coastal Resource). For the past 12 years Jessica has been self-employed working as a project manager and environmental consultant, specialising in freshwater, marine, coastal and environmental projects. Her client base is wide reaching from state agencies to community groups, individuals, angling clubs and private developers.

3.0 Methodology

Liaison with Padhraic O'Connor, Darragh O'Brien and Dillan Myburgh of Ayesa;

Simon Berrow, Irish Whale and Dolphin Group;

James Hegarty, National Parks and Wildlife Service.

Site visit and surveys on 07 October 2025.

Desk research (list not exhaustive, see section 12 for full detail).

Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie, including conservation objectives documents.

I-Webs Data from Birdwatch Ireland.

Marine Mammal Data from Irish Whale and Dolphin Group.

Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie.

Information on www.catchments.ie and www.epa.ie with regard to water quality.

This report has been prepared using the following guidance. A full list of research sources and references can be seen in section 12.

Dept. of Environment Heritage and Local Government (2009) Appropriate Assessment of plans and projects, Guidance for planning authorities.

European Commission Environment DG (2001) 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 November 2001.

OPR Practice Note (March 2021) Appropriate Assessment Screening for Development Management.

4.0 Overview of project proposals

Buncrana Pier, located at Buncrana on the east of Lough Swilly, is the one of larger piers and harbours owned and maintained by Donegal County Council. The RNLI launch from the pier. A roll on roll off ferry service between Rathmullan and Buncrana operates during the summer months from the slipway to the immediate north of the pier. The area is also used by leisure boats; Fahan Marina is to the south of the facility.

The area around the pier it is prone to siltation. In order to maintain access to/from the pier annual maintenance dredging is carried out in the spring/summer months. The RNLI berth is unusable at low tide without dredging. The dredge material (new proposed volume 12,000m³) is dumped further out from the pier and used in the golf course under an existing Article 27 licence.

A plough dredger will be used to transport the bulk of the material to the designated dumpsite.

qualifying interests, this includes coastal and marine Natura 2000 sites in Northern Ireland and Scotland.

The Natura Sites were then assessed in terms of whether a Source - Pathway - Receptor relationship existed with the Natura Site or their qualifying interests and screened out accordingly. Where no source - pathway- receptor relationship is considered to exist these Natura 2000 sites are screened out and will not be discussed further in this report, see Appendix 1. The project is within Lough Swilly SAC and c. 2km from Lough Swilly SPA., see figure 5.2. Other marine/ coastal sites have been included due to mobile marine mammal species only.

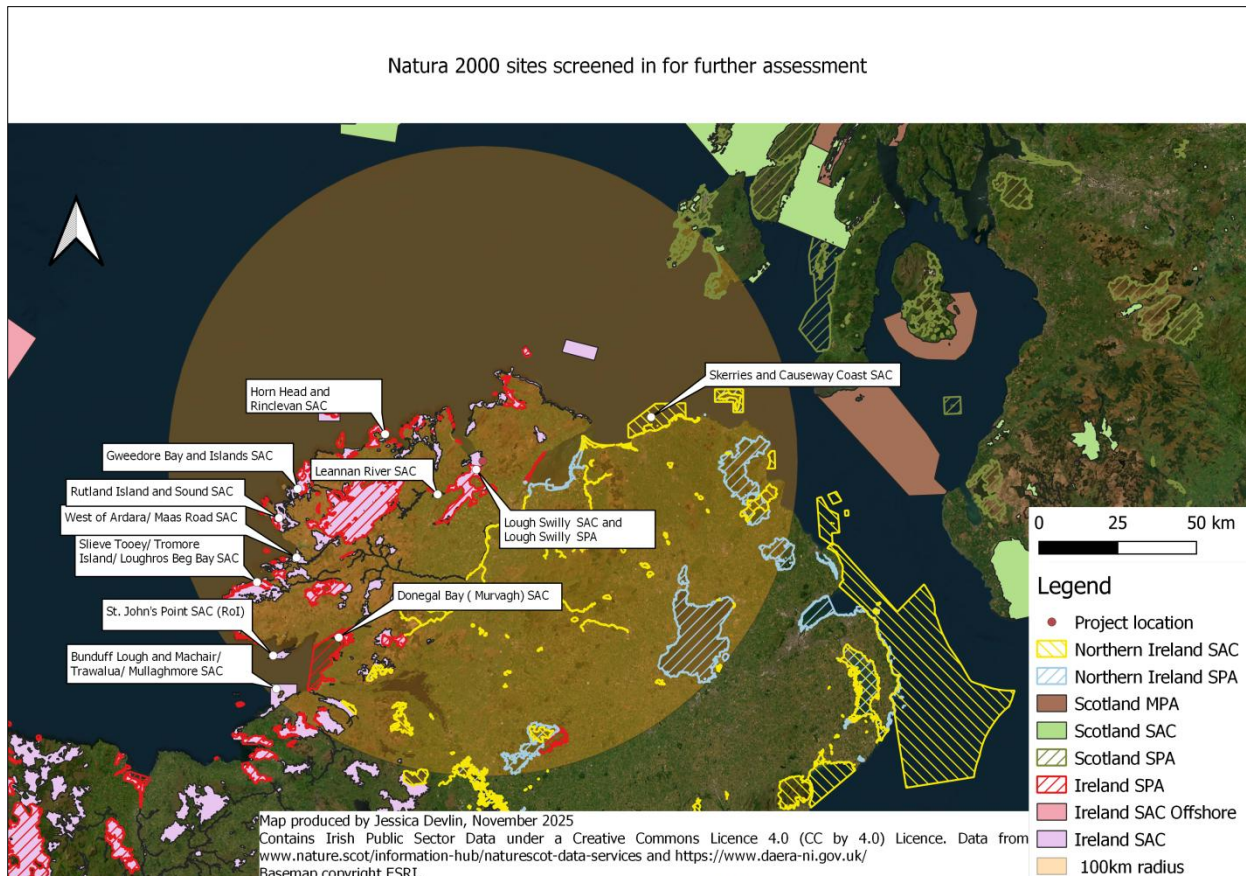


Figure 5.1 Natura 2000 sites screened in for further assessment.

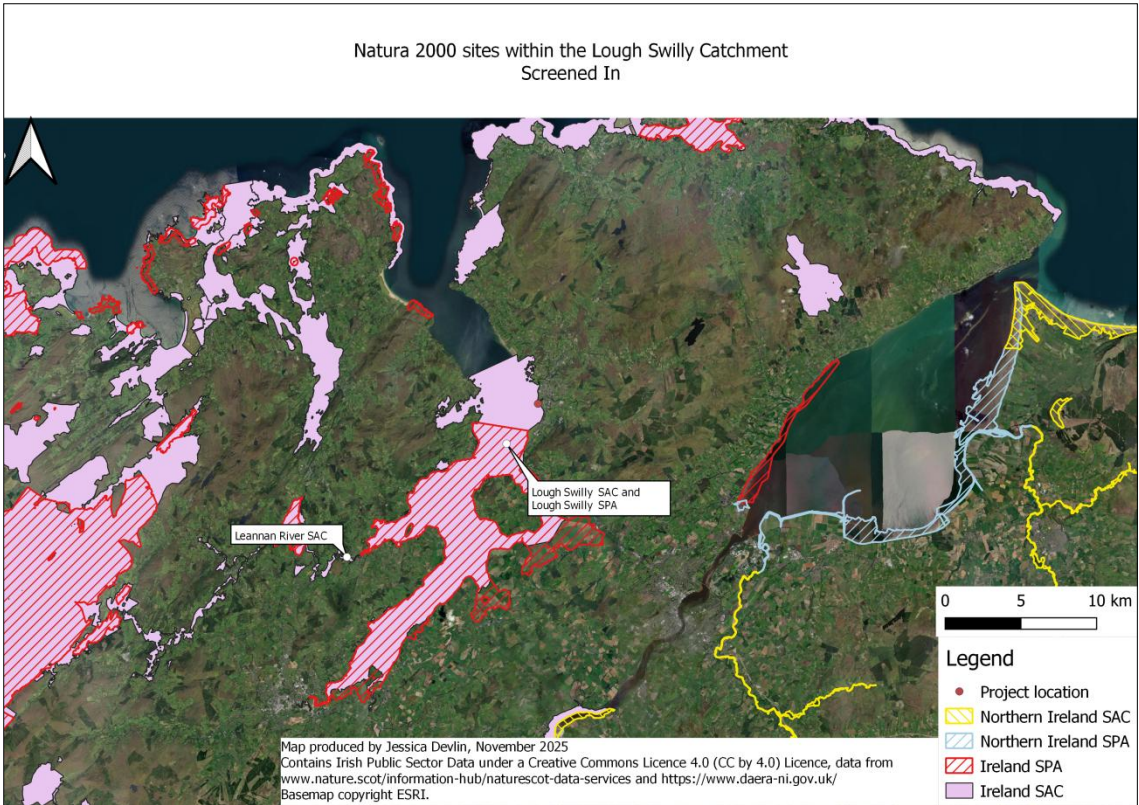


Figure 5.2 Project location within Lough Swilly SAC and SPA and hydrologically linked to Leannan River SAC

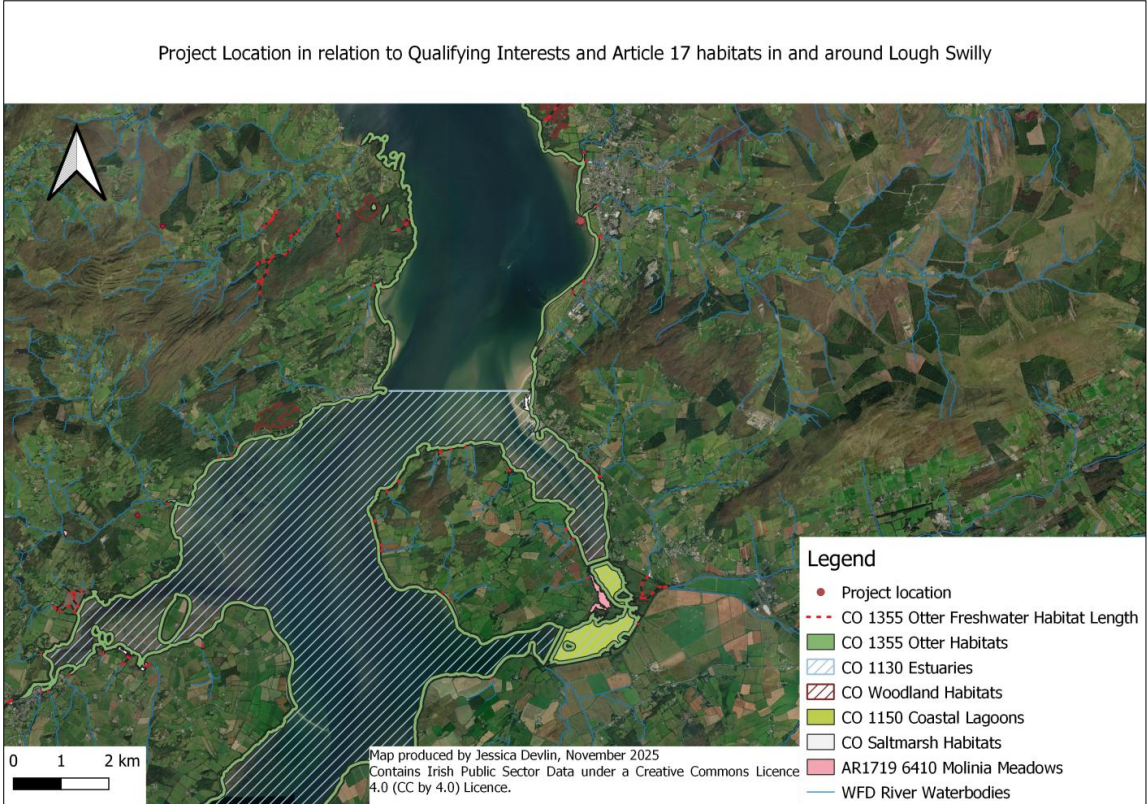


Figure 5.3 Project location in relation to Qualifying interests and Article 17 habitats in and around Lough Swilly.

Special Areas of Conservation (SAC) with potential for significant effects	Relevant Qualifying Interest
Lough Swilly SAC (002287) / within site	1130 Estuaries 1150 Coastal lagoons* 1351 Harbour Porpoise (<i>Phocoena phocoena</i>) 1355 Otter (<i>Lutra lutra</i>)
Leannan River SAC (002176) / 15km	1106 Salmon (<i>Salmo salar</i>)
Horn Head and Rinclevan SAC (000147) / 31km	1364 Grey Seal (<i>Halichoerus grypus</i>)
Gweedore Bay and Islands SAC (001141) / 47km	1351 Harbour Porpoise (<i>Phocoena phocoena</i>)
West of Ardara/Maas Road SAC (000197) / 54km	1365 Harbour Seal (<i>Phoca vitulina</i>)
Rutland Island and Sound SAC (002283) / 62km	1365 Harbour Seal (<i>Phoca vitulina</i>)
Donegal Bay (Murvagh) SAC (000133) 67km	1365 Harbour Seal (<i>Phoca vitulina</i>)
Slieve Tooley/Tormore Island/Loughros Beg Bay SAC (000190) / 74km	1364 Grey Seal (<i>Halichoerus grypus</i>)
St. John's Point SAC (000191) / 83km	1349 Common Bottlenose Dolphin (<i>Tursiops truncatus</i>)
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625) / 92km	1351 Harbour Porpoise (<i>Phocoena phocoena</i>)
Skerries and Causeway SAC (UK0030383) / 47km	Harbour porpoise (<i>Phocoena phocoena</i>)
Special Protected Areas (SPA) with potential for significant effects	Relevant SCI
Lough Swilly SPA (004075) / 1.9km	Birds A005 Great Crested Grebe (<i>Podiceps cristatus</i>) A028 Grey Heron (<i>Ardea cinerea</i>) A038 Whooper Swan (<i>Cygnus cygnus</i>) A043 Greylag Goose (<i>Anser anser</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A050 Wigeon (<i>Anas penelope</i>) A052 Teal (<i>Anas crecca</i>) A053 Mallard (<i>Anas platyrhynchos</i>) A056 Shoveler (<i>Anas clypeata</i>) A062 Scaup (<i>Aythya marila</i>) A067 Goldeneye (<i>Bucephala clangula</i>)

	A069 Red-breasted Merganser (<i>Mergus serrator</i>) A125 Coot (<i>Fulica atra</i>) A130 Oystercatcher (<i>Haematopus ostralegus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A164 Greenshank (<i>Tringa nebularia</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A182 Common Gull (<i>Larus canus</i>) A191 Sandwich Tern (<i>Sterna sandvicensis</i>) A193 Common Tern (<i>Sterna hirundo</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) Habitats Wetlands
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Table 5.1 Summary of Natura 2000 sites and the relevant qualifying interests screened in for further assessment.

5.2 Summary of Natura 2000 sites

A summary of relevant Natura Sites and the threats and pressures on those sites is detailed in Appendix 2. Lough Swilly SAC and SPA is in the zone of influence of the project. Mobile marine species in the other relevant Natura Sites have been included as a precaution, however due to distance and the size scale and type of the project, it does not have the potential to impact the other Natura sites directly, see table 5.2.

Lough Swilly SPA, Site Code 004075

Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Bunrana on the east side; it includes the adjacent Inch Lough. Lough Swilly SPA is of major ornithological importance for wintering waterbirds, with three species occurring in numbers of international importance and 18 occurring regularly in numbers of national importance. The site is regularly used by more than 20,000 waterfowl and as such is of international importance. Additionally, it holds nationally important breeding populations of three species, i.e. Sandwich Tern, Common Tern and Black-headed Gull. The site is used by a good range of species that are listed on Annex I of the E.U. Birds Directive. Part of Lough Swilly SPA is a Wildfowl Sanctuary.

Lough Swilly SAC, Site code 002287

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

Lakes which are lagoonal in character occur at Inch and Blanket Nook. Over 11 hectares of *Molinia* Meadows, a habitat listed on Annex I of the E.U. Habitats Directive, are reported to occur at Inch Level, according to the Irish Semi-natural Grasslands Survey, 2010.

Two woodlands occur adjacent to the north-western shore of Lough Swilly. These are Rathmullan and Carradoan Woods, the former being a Nature Reserve. They are dominated by Sessile Oak (*Quercus petraea*) and Downy Birch (*Betula pubescens*).

The site supports a population of Otter, a species listed on Annex II of the E.U. Habitats Directive

5.3 Conservation objectives

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

Favourable Conservation Status is defined by Articles 1(e) and 1(i) of the Habitats Directive as follows:

"The conservation status of a natural habitat is the sum of the influences acting on it and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species. The conservation status of a natural habitat will be taken as favourable when:

- its natural range and areas it covers within that range are stable or increasing; and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- the conservation status of its typical species is favourable'.

The conservation status of a species is the sum of the influences acting on the species that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' when:

- the population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; 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."

5.3.1 Conservation objectives

Relevant Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS and NIEA documentation where available)
Lough Swilly SAC	
To maintain the favourable conservation condition of Estuaries	<p>T1. Habitat area: The permanent habitat area is stable or increasing, subject to natural processes.</p> <p>T2. Community Distribution: The following communities should be conserved in a natural condition: Fine sand community complex; Intertidal mixed sediment with polychaetes; Subtidal mixed sediment with polychaetes and bivalves; Muddy fine sand with <i>Thyasira flexuosa</i>; Mud community complex and <i>Ostrea edulis</i> dominated community.</p>
To restore the favourable conservation condition of Lagoons	<p>T1. Habitat area: Area stable, subject to slight natural variation. Favourable reference area 206ha- Inch Lough 176ha; Blanket Nook 30ha.</p> <p>T2. Salinity regime: Maintain median annual salinity within natural ranges: Inch 0.1 - 3.0psu; Blanket Nook 10 - 20psu.</p> <p>T3. Hydrological Regime: Maintain current annual water level fluctuations and minima</p> <p>T4. Barrier: Maintain permeability, including appropriate management of sluices.</p> <p>T5. Water quality: Chlorophyll a: Reduce annual median chlorophyll a to less than 2.5µg/L at Inch; less than 5µg/L at Blanket Nook.</p> <p>T6. Water quality: Molybdate Reactive Phosphorus (MRP): Reduce annual median MRP to less than 0.01mg/L at Inch; less than 0.02mg/L at Blanket Nook.</p> <p>T7. Water quality: Dissolved Inorganic Nitrogen (DIN): Reduce annual median DIN to less than 0.15mg/L at Inch; less than 0.4mg/L at Blanket Nook.</p> <p>T8. Depth of macrophyte colonization: Increase colonisation to maximum depth of both lagoons.</p> <p>T9. Typical plant Species: Maintain number and extent of listed lagoonal specialists, subject to natural variation.</p> <p>T10. Typical invertebrate species: Maintain listed lagoon specialists, subject to natural variation.</p> <p>T11: Negative indicator Species: Negative indicator species absent or under control.</p>

<p>To restore the favourable conservation condition of Otter</p>	<p>T1. Distribution: No significant decline.</p> <p>T2. Extent of terrestrial Habitat: No significant decline. Area mapped and calculated as 95.7ha above high water mark (HWM); 44.0ha along river banks/ around pools.</p> <p>T3. Extent of marine Habitat: No significant decline. Area mapped and calculated as 839.5ha.</p> <p>T4. Extent of freshwater (river) habitat: No significant decline. Length mapped and calculated as 15.5km.</p> <p>T5. Extent of freshwater (lake/lagoon) Habitat: No significant decline. Area mapped and calculated as 83.7ha.</p> <p>T6. Couching sites and Holts: No significant decline.</p> <p>T7. Fish biomass Available: No significant decline.</p> <p>T8. Barriers to Connectivity: No significant increase.</p>
<p>To restore/maintain conservation condition of Harbour porpoise</p>	<p>No specific information in CO document for Harbour porpoise.</p>
<p>Lough Swilly SPA</p>	
<p>To maintain the favourable conservation condition of bird populations</p> <p>A005 Great Crested Grebe (<i>Podiceps cristatus</i>)</p> <p>A028 Grey Heron (<i>Ardea cinerea</i>)</p> <p>A038 Whooper Swan (<i>Cygnus cygnus</i>)</p> <p>A043 Greylag Goose (<i>Anser anser</i>)</p> <p>A048 Shelduck (<i>Tadorna tadorna</i>)</p> <p>A050 Wigeon (<i>Anas penelope</i>)</p> <p>A052 Teal (<i>Anas crecca</i>)</p> <p>A053 Mallard (<i>Anas platyrhynchos</i>)</p> <p>A056 Shoveler (<i>Anas clypeata</i>)</p> <p>A062 Scaup (<i>Aythya marila</i>)</p> <p>A067 Goldeneye (<i>Bucephala clangula</i>)</p> <p>A069 Red-breasted Merganser (<i>Mergus serrator</i>)</p> <p>A125 Coot (<i>Fulica atra</i>)</p>	<p>T1. Population trend: Long term population trend stable or increasing.</p> <p>T2. Distribution: No significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation.</p>

<p>A130 Oystercatcher (<i>Haematopus ostralegus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A164 Greenshank (<i>Tringa nebularia</i>) A182 Common Gull (<i>Larus canus</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)</p>	
<p>To maintain the favourable conservation condition of breeding bird populations</p> <p>Black-headed Gull <i>Chroicocephalus ridibundus</i></p> <p>Sandwich Tern <i>Sterna sandvicensis</i></p> <p>Common Tern <i>Sterna hirundo</i></p>	<p>T1. Breeding population abundance: apparently occupied nests (AONs): No significant decline.</p> <p>T2. Productivity rate: fledged young per breeding pair: No significant decline.</p> <p>T3. Distribution: breeding colonies: No significant decline The only known breeding site for Sandwich tern is on Inch Island.</p>
<p>To maintain the favourable conservation condition of the wetland habitat in Lough Swilly SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.</p>	<p>Habitat area The permanent area occupied by the wetland habitat is stable and not significantly less than the areas of 4,162, 2,419, 201 and 317 hectares for subtidal, intertidal, supratidal and lagoon (and associated) habitats respectively, other than that occurring from natural patterns of variation.</p>
<p>Leannan River SAC (002176)</p>	
<p>To restore the favourable conservation condition of Atlantic Salmon (<i>Salmo salar</i>)</p>	<p>T1. Distribution: extent of anadromy: 100% of river channels down to second order accessible from estuary Adult spawning Fish: Conservation limit (CL) for each system consistently exceeded.</p> <p>Salmon fry Abundance: Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling.</p> <p>Out-migrating smolt abundance: No significant decline.</p> <p>Number and distribution of redds: No decline in number and distribution of spawning redds due to anthropogenic causes.</p> <p>Water quality: At least Q4 at all sites sampled by EPA.</p>

Horn Head and Ringlevan SAC (000147)	
To maintain the favourable conservation condition of Grey Seal	<p>T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use.</p> <p>T2. Breeding Behavior: Conserve the breeding sites in a natural condition.</p> <p>T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition.</p> <p>T4. Resting behavior: Conserve the resting haulout sites in a natural condition.</p> <p>T5. Population Composition: The grey seal population occurring within this site should contain adult, juvenile and pup cohorts annually.</p> <p>T6. Disturbance: Human activities should occur at levels that do not adversely affect the grey seal population at the site.</p>
Gweedore Bay and Islands SAC (001141)	
1351 Harbour Porpoise (<i>Phocoena phocoena</i>)	No specific information in the CO document re Harbour porpoise
West of Ardara/Maas Road SAC (000197)	
To maintain the favourable conservation condition of Harbour Seal (<i>Phoca vitulina</i>)	<p>T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use.</p> <p>T2. Breeding Behavior: Conserve the breeding sites in a natural condition.</p> <p>T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition.</p> <p>T4. Resting behavior: Conserve the resting haulout sites in a natural condition.</p> <p>T5. Disturbance: Human activities should occur at levels that do not adversely affect the harbour seal population at the site.</p>
Rutland Island and Sound SAC (002283)	
To maintain the favourable conservation condition of Harbour Seal (<i>Phoca vitulina</i>)	<p>T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use.</p> <p>T2. Breeding Behavior: Conserve the breeding sites in a natural condition.</p> <p>T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition.</p> <p>T4. Resting behavior: Conserve the resting haulout sites in a natural condition.</p> <p>T5. Disturbance: Human activities should occur at levels that do not</p>

	adversely affect the harbour seal population at the site.
Donegal Bay (Murvagh) SAC (000133)	
To maintain the favourable conservation condition of Harbour Seal (<i>Phoca vitulina</i>)	<p>T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use.</p> <p>T2. Breeding Behavior: Conserve the breeding sites in a natural condition.</p> <p>T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition.</p> <p>T4. Resting behavior: Conserve the resting haulout sites in a natural condition.</p> <p>T5. Disturbance: Human activities should occur at levels that do not adversely affect the harbour seal population at the site.</p>
Slieve Tooley/Tormore Island/Loughros Beg Bay SAC (000190)	
To maintain the favourable conservation condition of Grey Seal	<p>1364 Grey Seal (<i>Halichoerus grypus</i>)</p> <p>T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use.</p> <p>T2. Breeding Behavior: Conserve the breeding sites in a natural condition.</p> <p>T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition.</p> <p>T4. Resting behavior: Conserve the resting haulout sites in a natural condition.</p> <p>T5. Disturbance: Human activities should occur at levels that do not adversely affect the grey seal population at the site.</p>
St. John's Point SAC (000191)	
1349 Common Bottlenose Dolphin (<i>Tursiops truncatus</i>)	No specific information in the CO document re Bottlenose Dolphin.
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625)	
1351 Harbour Porpoise (<i>Phocoena phocoena</i>)	No specific information in the CO document re Harbour porpoise.
Skerries and Causeway SAC (UK0030383)	
To maintain (or restore where appropriate) the Harbour porpoise (<i>Phocoena phocoena</i>) to favourable condition.	<p>Ensure the species is a viable component of the site.</p> <p>Ensure there is no significant disturbance of the species.</p> <p>Ensure the species is a viable component of the site.</p> <p>T1. Mean abundance of adults within the SAC: Mean abundance of adults within the SAC Sightings rate from land based watches not less than 0.314 harbour porpoise per hour (based at Ramore Head).</p> <p>Presence/absence of young: At the time of designation approximately</p>

	30.6% of the total numbers counted were young (all ages i.e. young, juveniles and calves).
Donegal Bay (Murvagh)SAC	
To maintain the favourable conservation condition of harbour seal in Donegal Bay (Murvagh) SAC.	<p>Target 1: Species range within the site should not be restricted by artificial barriers to site use.</p> <p>T1. This target may be considered relevant to proposed activities or operations that will result in the permanent exclusion of harbour seal from part of its range within the site, or will permanently prevent access for the species to suitable habitat therein. It does not refer to short-term or temporary restriction of access or range.</p> <p>Target 2: The breeding sites should be maintained in a natural condition.</p> <p>T2. This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) breeding behaviour by harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used during the annual breeding season.</p> <p>Operations or activities that cause displacement of individuals from a breeding site or alteration of natural breeding behaviour, and that may result in higher mortality or reduced reproductive success, would be regarded as significant and should therefore be avoided.</p> <p>Target 3: The moult haul-out sites should be maintained in a natural condition.</p> <p>T3: This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) moulting behaviour by harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used during the annual moult.</p> <p>Operations or activities that cause displacement of individuals from a moult haul-out site or alteration of natural moulting behaviour to an extent that may ultimately interfere with key ecological functions would be regarded as significant and should therefore be avoided.</p> <p>Target 4: The resting haul-out sites should be maintained in a natural condition.</p> <p>T4: This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) resting behaviour by harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used for resting.</p> <p>Operations or activities that cause displacement of individuals from a resting haul-out site to an extent that may ultimately interfere with key ecological functions would be regarded as significant and should therefore be avoided.</p> <p>Target 5: Human activities should occur at levels that do not adversely</p>

	<p>affect the harbour seal population at the site.</p> <p>T5: Proposed activities or operations should not introduce man-made energy (e.g. aerial or underwater noise, light or thermal energy) at levels that could result in a significant negative impact on individuals and/or the population of harbour seal within the site. This refers to both the aquatic and terrestrial/intertidal habitats used by the species in addition to important natural behaviours during the species’ annual cycle.</p> <p>This target also relates to proposed activities or operations that may result in the deterioration of key resources (e.g. water quality, feeding, etc) upon which harbour seals depend. In the absence of complete knowledge on the species ecological requirements in this site such considerations should be assessed where appropriate on a case-by-case basis.</p> <p>Proposed activities or operations should not cause death or injury to individuals to an extent that may ultimately affect the harbour seal population at the site.</p>
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Table 5.2 Relevant conservation objectives and targets for Natura 2000 sites.

5.4 Land use and activities in the area

The principal and largest town in the Inishowen peninsula, Buncrana sits prominently on the eastern shore of Lough Swilly approximately half way up the Lough. The surrounding area is dominated by agriculture, and tourism is a significant economic input to the area. Fahan marina is located to the south of the pier. A roll on roll off ferry service between Rathmullan and Buncrana operates during the summer months from the slipway to the immediate north of the pier. Lisfannon beach to the south is very popular with walkers and anglers. The RNLi uses the pier to launch.

5.5 Other plans/projects:

Development

Policy BIO P-1 of the County Donegal Development Plan 2024 – 2030 States the following:

It is a policy of the Council “...To require all developments to comply with the requirements of the **EU Habitats Directive and EU Bird Directive**, including ensuring that development proposals:

a. Do not adversely affect the integrity of any European/Natura 2000 site (i.e. Special Areas of Conservation and Special Protection Areas) including effects on ex-situ but functionally linked habitats, and species (e.g. Pearl Mussel) save where a plan must be carried out for imperative reasons of overriding public interest (IROPI).

b. Provide for the protection of animal and plant species listed in Annex IV of the EU Habitats Directive and the Flora Protection Order.

c. Protect and enhance features of the landscape (such as rivers, riverbanks, field boundaries, ponds and small woods) which are of major importance for wild fauna and flora and the ecological coherence of the Natura 2000 network....”

Any existing/proposed plan or project that could potentially affect Natura 2000 sites, in combination with the proposed development, must adhere to this environmental policy. Any projects or plans within the zone of influence of the project will be required to carry out Stage 1 and/or Stage 2 of the Appropriate Assessment process thereby ensuring protection of Natura 2000 sites.

The National Planning and Housing Development Database was accessed; at the time of writing there were no live planning application pending within the immediate vicinity of the project location. Recent planning permissions granted pertain to the waste water treatment works and retention applications for alterations to existing buildings and facilities, applications can be seen in appendix 3.

Licences

EPA's on-line mapping system determined that there are no IPC, IEL or waste licensed facilities within proximity of the subject site.

Waste Water Treatment

Buncrana Urban Wastewater Treatment Plant is situated approximately 0.2km east of the pier, adjacent to the Mill River, which drains into Buncrana Harbour. UWW emission points in the vicinity of the harbour include a storm water overflow, located on the Mill River, approximately 0.3km north-east of the pier, and a primary effluent emission point, located approximately 0.6km north-west of the pier in Lough Swilly. Buncrana WWTP has a Plant Capacity PE of 10000, the treatment type is 1 - Primary treatment.

The 2024 Annual Environmental report for Buncrana Waste water Treatment System D0125-01 states that the plant is compliant with the Emission Limit Values (ELV) set for the discharge licence:

- The coastal/transitional ambient monitoring results meet the required Environmental Quality Standards (EQS). The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.
- The WWTP discharge was compliant with the ELV's set in the wastewater discharge licence.
- The discharge from the wastewater treatment plant does not have an observable impact on the water quality.
- A deterioration in water quality has been identified, however it is not known if it or is not caused by the WWTP.
- Other causes of deterioration in water quality in the area are unknown.
- The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.
- The discharge from the wastewater treatment plant does not have an observable impact on the designated shellfish water quality.
- The discharge from the wastewater treatment plant does not have an observable impact on the coastal/transitional water quality.
- The discharge from the wastewater treatment plant does not have an observable impact on the bathing water quality.

Uisce Éireann has submitted a planning application to Donegal County Council for the Buncrana Sewerage Scheme. The scheme aims to reduce the risk of overflows and flooding during heavy rain events through provision of stormwater storage to: Improve water quality in the receiving waters;

Ensure compliance with Urban Wastewater Treatment Regulations 2001 and the EPA Wastewater Discharge Licencing; Provide for growth and development in Buncrana and the surrounding areas.

This scheme is part of the Donegal Towns & Villages Sewerage Schemes project and includes the following:

- Provision of stormwater storage at the Buncrana Wastewater Treatment Plant and at the Westbrook Pumping Station.
- Upgrade of the sewer network to increase its capacity.

As part of this project it is planned that works will take place in the following locations including: Marian Park, Cahir O'Doherty Avenue, Aileach Road, Railway Road and Cockhill Road. Work to bring the project to fruition is on-going.

Aquaculture licences

There are several shellfish aquaculture licences in Lough Swilly for Pacific oyster and Blue Mussel. There is one finfish aquaculture licence for Atlantic Salmon to the northwest of Buncrana. The closest licence area is 2.6km away from the project site.

Fishing

According to Marine.ie cockle and oyster dredging occurs, as does periwinkle harvesting. Troll line fishing occurs out to sea beyond the mouth of the lough.

5.5.1 Water Framework Directive

The Water Framework Directive (WFD) obliges member states to manage their waters in an integrated and sustainable way. They must ensure that their waters achieve at least good status, generally by 2027 at the latest, and that current status doesn't deteriorate in any waters. To achieve good status and preserve the best waters, management plans have been prepared for districts around the country. Relevant projects underway as part of the implementation of this plan include:

Environmental Protection Agency (EPA) Monitoring Programme. The EPA is responsible for the monitoring of water quality around the country. Both chemical and ecological monitoring is undertaken by the EPA to ascertain water quality status.

5.5.2 International Union for the Conservation of Nature and Natural Resources (IUCN) Red Data Lists

IUCN Red Data Lists are a very important resource for conservation and protection of species and their habitats. Red Lists identify which species are in most danger, and categorise threatened species as follows: critically endangered (CR), endangered (EN), vulnerable (VU), near threatened (NT) or least concern (LC). Red lists are an internationally recognized system for highlighting species in danger.

5.5.3 Ramsar Sites

The Ramsar Convention is an international agreement for the conservation and wise use of wetlands. It is also known as the Convention on Wetlands and it is named after the city of Ramsar in Iran, where the Convention was signed in 1971. The Ramsar Convention (2010) defines wetlands as:

“ areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.”

6.0 Site description (Fossitt description in brackets)

The site was visited on an outgoing tide on the 7th October 2025. Conditions were sunny with a light breeze, with some cloud cover. The project site is located on the eastern shore of Lough Swilly (MW2 Marine inlets and bays), at and existing pier (CC1 Sea walls piers and jetties). The pier head is accessed by existing road infrastructure and car park (BL3 Buildings and artificial surfaces). The RNLi boat was moored alongside the pier at the time of the visit. 2 disused vessels are behind the pier, one is in very poor condition. A roll on roll off ferry service between Rathmullan and Buncrana operates during the summer months from the slipway to the immediate north of the pier, see plate 1.

The project site lies within the middle lough, north of Inch Island. The Mill River (FW2 depositing lowland rivers) enters the Lough at the pier, see plate 2. The area in the immediate vicinity of dredging is muddy sand with estuarine characteristics due to the outflow of the Mill River. There is a small area of shingle/gravel (LS1 shingle gravel shores) beside the dredge site to the south and a large rock outcrop with oyster, periwinkle and barnacles. The long and wide sandy beach of Lisfannon spreads south along the coastline (LS2 Sand Shores), with some rocky areas and seaweed present (LR4 Mixed substrata shores) in the upper shore, see plates 3 -7). The golf course (GA2 Amenity grassland) follows the coastline; it is protected by rock armour (BL1 stonewalls and other stonework), and has areas of exposed and recolonising sand/soil (ED1/ ED3), due to deposits from previous dredging campaigns.

To the north the beach has intermittent rocky outcrops. There are some dwellings and eateries along the coast to the north. The area behind the pier is dominated by seaweed and rocks including Bladder wrack and serrated wrack.

The concrete columns of the pier are covered in a layer of marine growth, with hard growth including barnacles and mussels within the tidal zone. The bed is generally fine sand.



Plate 1. Looking west from pier, across Lough Swilly, slipway for roll on roll off ferry service to the fore of picture.



Plate 2. Looking east along the pier towards the Mill River. Dredge site. RNLI boat moored to the fore.



Plate 3. Looking west behind the pier, seaweed and abandoned boats.



Plate 4. Looking south across the beach towards the golf course.



Plate 5. Looking north towards the pier from the golf course deposition site.



Plate 6. Looking south along Lisfannon beach from golf course.



Plate 7. Looking south from pier at dredge site.

6.1 Hydrology

Lough Swilly is a substantial body of water of 154km². The mean annual tidal range of Lough Swilly is between 3.7m and 1.4m from spring tide to neap tide. The lough is the receiving water for a total catchment area of almost 1000km², excluding the lough itself. The total monthly tidal influx of seawater from the Atlantic into the lough can be estimated at circa 19 billion tonnes. The currents in some parts of the lough particularly in the middle lough are very strong, especially during spring tides and are estimated at 1m/sec. (Bass, 2011). The Swilly is a very hydroactive system with good flushing capacity from the middle lough out to sea (Bass, 2011).

Water Framework Directive water status:

According to catchments.ie water quality status (2019-2024): the Mill River is currently moderate. The Crana River to the north is poor. The transitional waters around Bunrana pier are moderate with the rest of the lough, north of Inch Island, Good.

The outer Swilly estuary to the south of the project is moderate. The transitional water and inner Swilly estuary are poor.

The Crana estuary, transitional water and inner Swilly estuary are all at **at risk** of not meeting its WFD objectives by 2027 (www.catchments.ie, 2025). The outer Swilly estuary as far as Rathmullan/Fahan is not at risk. Lough Swilly is at risk of not meeting its WFD objectives.

Pressures identified in river systems include agriculture, domestic wastewater, forestry and river waste. Pressures on Lough Swilly include domestic waste pressures, urban runoff, and urban wastewater. Coastal Lagoon habitat is experiencing pressures from agriculture and hydromorphology.

6.2 Birds and waterfowl

The project location is c. 2km from Lough Swilly SPA. The Natura 2000 site supports an excellent diversity of waterfowl species in autumn and winter as well as breeding terns, gulls and ducks. The shallow waters provide suitable habitat for grebes and diving duck, while the intertidal flats are used by an abundance of wildfowl and waders. At high tide, the duck and wader species roost on the salt marshes and shorelines, with some species moving to the adjacent pasture and arable fields. The combination within this site of extensive feeding areas and safe resting and roosting sites makes this one of the most important wetlands in the north-west of the country for wintering waterfowl (NPWS, 2014).

Lough Swilly SPA supports internationally important numbers of Whooper Swan, Greenland White-fronted Goose and Greylag Goose. The main areas of the site used by these species are at Big Isle, Farsetmore, Blanket Nook, Ballylawn and Inch Levels. The small island in Inch Lough supports the largest tern colony in the north-west, with nationally important populations of Sandwich Tern and Common Tern occurring. There is also a nationally important colony of Black-headed Gull, which represents one of the largest populations in the country (NPWS, 2014).

Several species of duck breed on Inch Lough, most notably Tufted Duck. Mute Swan breeds in important numbers and a concentration of 50 pairs on the small island in Inch Lough is most unusual as this species seldom nests in colonies. Whooper Swan, a very rare breeding species in Ireland, has been recorded nesting at Inch Lough. Lapwing breeds in regionally important numbers either on wet grass fields within the levels or around the edge of the lagoon. Coot also breed (NPWS, 2014). Information on each Lough Swilly SPA SCI species can be seen in Appendix 4

Important bird and biodiversity Area (IBA)

Lough Swilly including Blanket Nook and Inch Lake has been identified as an IBA in relation to terrestrial and marine sites. Terrestrial sites are those sites with seabird colonies meeting the criteria for IBA identification. Marine sites are identified from the analysis of tracking data and aerial surveys to identify high use areas at sea. The species which triggered the IBA is the Sandwich Tern; breeding grounds are found on Inch Island (Johnston, 2011). Black Guillemot, Black-headed Gull, Common Tern were also identified as being important, but did not meet the criteria for IBA.

The outer lough also meets the criteria for IBA in Marine sites. The channel from the Lough Swilly region is included given the Sandwich Terns which move through this area from breeding colonies to North Donegal coast and islands marine extension, see figure 6.1.

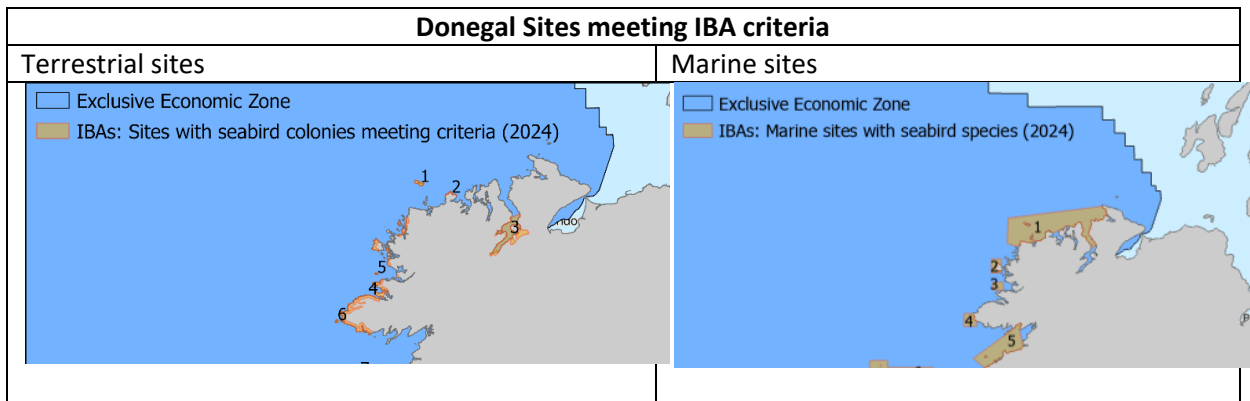


Figure 6.1 Donegal IBA sites. Site 1 and 3 include Lough Swilly including Blanket nook and Inch lake IBA sites. Extract from Auchincloss *et al*, 2025.

Site specific data for the project site:

Observations taken by the Marine Mammal Observer during the dredge campaign in April 2023 show that several of the special conservation interests for the SPA were present throughout the dredge campaign, see extract from MMO report in figure 6.2. The number of birds recorded was not available.

A bird survey was undertaken at the site visit in October 2025, small numbers of SCI species were recorded at the site, see table 6.1.

I-Webs data was also requested from Birdwatch Ireland the project site lies to the very north of Subsite 0A482. This is a large subsite running from Bunrana pier to Fahan, 4.5km away, covering an area of approximately 3.5km², the area of the project is much smaller at c0.2km², see figure 6.3. All species recorded in the sub site over the past 5 years have occurred in numbers well below national and international 1% numbers, see table 6.2.

Table 3.5 Bird species present throughout the plough dredging campaign.

Species	Scientific Name	QI of Lough Swilly SPA	Designation
Common Gull	<i>Larus canus</i>	✓	WA, BoCCI Amber List
Herring Gull	<i>Larus argentatus</i>	x	WA, BoCCI Red List
Lesser Black-Backed Gull	<i>Larus fuscus</i>	x	WA, BoCCI Amber List
Black-Headed Gull	<i>Larus ridibundus</i>	✓	WA, BoCCI Red List
Black Guillemot	<i>Cephus grylle</i>	x	WA, BoCCI Amber List
Oystercatcher	<i>Haematopus ostralegus</i>	✓	WA, BoCCI Amber List
Mallard	<i>Anas platyrhynchos</i>	✓	WA, BoCCI Green List
European Shag	<i>Phalacrocorax aristotelis</i>	x	WA, BoCCI Amber List
Cormorant	<i>Phalacrocorax carbo</i>	x	WA, BoCCI Amber List
Pintail	<i>Anas acuta</i>	x	WA, BoCCI Red List
Sandwich Tern	<i>Sterna sandvicensis</i>	✓	WA, BD Annex I, BoCCI Amber List
Northern Gannet	<i>Morus bassanus</i>	x	WA, BoCCI Amber List
Dunlin	<i>Calidris alpina</i>	✓	WA, BD Annex I, BoCCI Red List
Grey Heron	<i>Ardea cinerea</i>	✓	WA, BoCCI Green List
Rook	<i>Corvus frugilegus</i>	x	WA, BoCCI Green List
Brent Goose	<i>Branta bernicla hrota</i>	x	WA, BoCCI Amber List
Turnstone	<i>Arenaria interpres</i>	x	WA, BoCCI Green List
Curlew (Possible)	<i>Numenius arquata</i>	✓	WA, BoCCI Red List

WA – Wildlife Act, BD Annex I – EU Birds Directive Annex I Species, BoCCI – Birds of Conservation Concern in Ireland.

Figure 6.2 Birds recorded during 2023 dredge campaign (Extract from MMO report, 2023).

Wintering bird survey Buncrana pier October 7 th 2025	Time: 12.00 – 2.04pm low tide at 1.04pm Type vantage site survey	Wind beaufort 2/3	Activity				Comment	Special Conservation Interest of SPA
			Position	Species	Number	Forage		
Tideline	Great black backed gull	2	x		x		1 juvenile	No
Mid shore	Black headed gull	13		x				Yes
Tide line	Herring gull	4	x			x		No
Mid shore Gravel shore	Curlew	1	x					Yes
Mid shore	Turnstone	4	x					No
Tideline	Common gull	1	x					Yes
Pier and beach	Crows	9		x	x	x		No
Outcrop to sth	Shag	1			x			No
Mid shore	Oystercatcher	2	x					Yes
Far beach	Grey heron	1				x		Yes
Comments	<p>Not much activity on the beach 2 walkers, cars and vans on pier did not cause any disturbance.</p> <p>Wind increased slightly around 1.15pm when tide turned. As tide turned black headed gulls moved up the beach beside the river, behind the pier.</p>							

Table 6.1 Bird survey at project site 07 October 2025.

Birdwatch Ireland data

I-Webs site code Lough Swilly 0A401, subsite code Lisfannon 0A482 (previous subsites 0A501 and 0A502 have been merged into one subsite – Lisfannon 0A482, email confirmation from Cian O’Flaherty, Birdwatch Ireland)

Species Code	Species Name	Latin Name IOC	Display Order	AllIreland_1pc	Flyway_1pc	Peak (20year)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
WS	Whooper Swan	<i>Cygnus cygnus</i>	300	150	340	35	1					
GJ	Greylag Goose (resident)	<i>Anser anser</i>	600	35	980	60					60	
CG	Canada Goose	<i>Branta canadensis</i>	700			2						2
PB	Light-bellied Brent Goose	<i>Branta bernicla hrota</i>	900	350	400	62	32	42	28	23	23	33
SU	Shelduck	<i>Tadorna tadorna</i>	1000	100	2500	45					18	45
WN	Wigeon	<i>Mareca penelope</i>	1100	560	14000	73					39	73
T.	Teal	<i>Anas crecca</i>	1300	360	5000	74						74
MA	Mallard	<i>Anas platyrhynchos</i>	1400	280	53000	119	6	30	6	26	119	44
SV	Shoveler	<i>Spatula clypeata</i>	1600	20	650	4						4
SP	Scaup	<i>Aythya marila</i>	1900	25	3100	22						
E.	Eider	<i>Somateria mollissima</i>	2100	55	9800	12					1	
GN	Goldeneye	<i>Bucephala clangula</i>	2300	40	11400	6						
RM	Red-breasted Merganser	<i>Mergus serrator</i>	2500	25	860	12				1	4	12
RH	Red-throated Diver	<i>Gavia stellata</i>	2800	20	3000	15					15	
ND	Great Northern Diver	<i>Gavia immer</i>	3000	20	50	8	8	1	1	1	1	
LG	Little Grebe	<i>Tachybaptus ruficollis</i>	3100	20	4700	2	2					1

Species Code	Species Name	Latin Name IOC	Display Order	AllIreland_1pc	Flyway_1pc	Peak (20year)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
GG	Great Crested Grebe	<i>Podiceps cristatus</i>	3200	30	6300	47		1	1	1	21	19
SZ	Slavonian Grebe	<i>Podiceps auritus</i>	3300			3						
CA	Cormorant	<i>Phalacrocorax carbo</i>	3400	110	1200	40	40	12	8	26	14	12
SA	Shag	<i>Gulosus aristotelis</i>	3500			2					1	
ET	Little Egret	<i>Egretta garzetta</i>	3600	20	1100	2	2	1		1	1	2
H.	Grey Heron	<i>Ardea cinerea</i>	3700	25	5000	9	6	2	3	1	1	9
OC	Oystercatcher	<i>Haematopus ostralegus</i>	4100	610	8200	271	54	17	52	35	166	271
RP	Ringed Plover	<i>Charadrius hiaticula</i>	4200	120	540	300	100	2	94	31	16	
L.	Lapwing	<i>Vanellus vanellus</i>	4500	850	72300	100					1	100
SS	Sanderling	<i>Calidris alba</i>	4700	85	2000	210	57		15	3	1	
DN	Dunlin	<i>Calidris alpina</i>	5100	460	13300	400	180		190	170	3	
SN	Snipe	<i>Gallinago gallinago</i>	5400			1						
BW	Black-tailed Godwit	<i>Limosa limosa</i>	5600	200	1100	700					8	700
BA	Bar-tailed Godwit	<i>Limosa lapponica</i>	5700	170	1500	80				17	2	80
CU	Curlew	<i>Numenius arquata</i>	5900	350	7600	224	34	1	40	16	224	65
RK	Redshank	<i>Tringa totanus</i>	6100	240	2400	173					87	173
GK	Greenshank	<i>Tringa nebularia</i>	6200	20	3300	12			4	1	12	10
TT	Turnstone	<i>Arenaria interpres</i>	6600	95	1400	11					3	10
KF	Kingfisher	<i>Alcedo atthis</i>	6700			1						
BH	Black-headed Gull	<i>Chroicocephalus ridibundus</i>	6800			200	89	89	101	71	55	136
CM	Common Gull	<i>Larus canus</i>	6900			300	31	24	40	64	19	300

Species Code	Species Name	Latin Name IOC	Display Order	AllIreland_1pc	Flyway_1pc	Peak (20year)	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
LB	Lesser Black-backed Gull	<i>Larus fuscus</i>	7000			8	8	3	4	7		
HG	Herring Gull	<i>Larus argentatus</i>	7100			166	58	40	79	89	60	44
GB	Great Black-backed Gull	<i>Larus marinus</i>	7200			53	13		4	17	2	3
TE	Sandwich Tern	<i>Thalasseus sandvicensis</i>	7400			52						
CN	Common Tern	<i>Sterna hirundo</i>	7500			10						
AE	Arctic Tern	<i>Sterna paradisaea</i>	7600			4						
VS	Velvet Scoter	<i>Melanitta fusca</i>	105410			1					1	
PL	Grey Phalarope	<i>Phalaropus fulicarius</i>	159480			1						
KI	Kittiwake	<i>Rissa tridactyla</i>	160700			2						
IN	Ring-billed Gull	<i>Larus delawarensis</i>	161270			1						

Table 6.2 I-Webs data requested from Birdwatch Ireland showing subsite 0A482 annual numbers for past 5 years, and peak numbers for the past 20 years including nationally and internationally significant numbers for each species. **SCI species highlighted in yellow.**

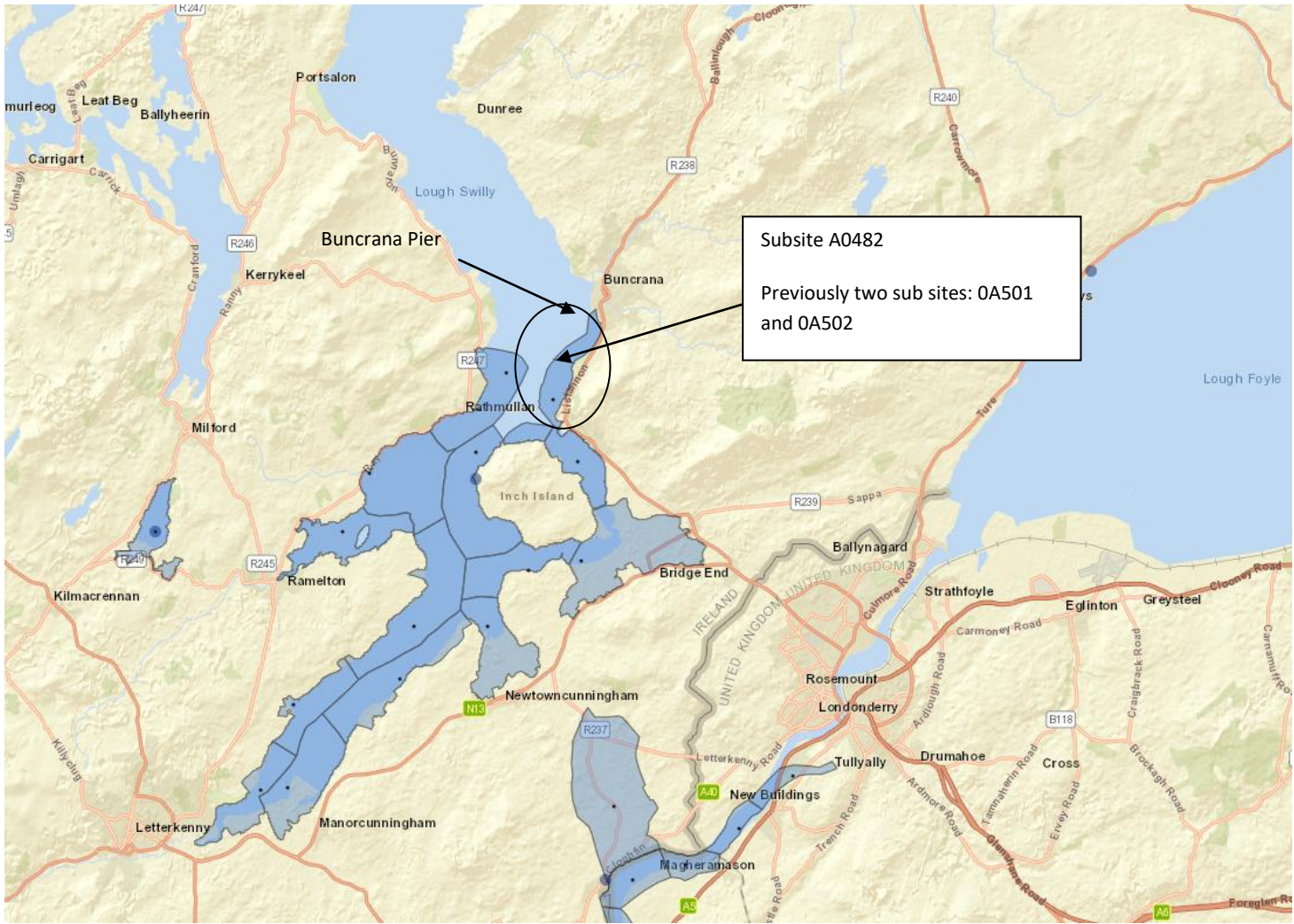


Figure 6.3 I-Webs site code Lough Swilly OA401, subsite code Lisfannon OA482 (previous subsites OA501 and OA502 have been merged into one subsite – Lisfannon OA482 -email confirmation from Cian O’Flaherty, Birdwatch Ireland, 2025) (Map source © Birdwatch Ireland, ESRI11 Nov 2025).

6.3 Marine Mammals

In Ireland, cetaceans (whale, dolphins and porpoises), grey seals (*Halichoerus grypus*), harbour seals (*Phoca vitulina*) and the Eurasian Otter (*Lutra Lutra*) are protected under the Wildlife Act (1976) and amendments (2000-2023). The Act applies out to the 12 nm limit of Irish territorial waters. All cetaceans and otter are also included in Annex IV of the EC Habitats Directive, as species ‘in need of strict protection’. Under this Directive, the harbour porpoise (*Phocoena phocoena*), bottlenose dolphin (*Tursiops truncatus*), grey seal, harbour seal and Eurasian Otter are listed under Annex II, which identifies these species of community interest and whose conservation requires the designation of SACs. It is an offence to hunt, injure or willfully interfere with, disturb or destroy the resting or breeding place of a protected species (except under license or permit from the Department. Of the 25 species of cetaceans recorded in Irish waters, the harbour porpoise (*Phocoena phocoena* L.) is the most widespread and abundant (Rogan and Berrow 1996, as cited in Berrow *et al* 2014) and the grey seal and harbour/common seal are regularly occurring. Otter are frequently occurring around rivers, lakes and coastlines.

A Marine Mammal Risk Assessment has been undertaken, see appendix 5.

Otter was previously listed as “near threatened” in Ireland (Marnell *et al.*, 2009), however following a revised assessment in Marnell *et al.* (2019) its conservation status is now listed as “least concern”. It is believed that this is due to population recovery (Marnell *et al.*, 2019) and Ireland is a stronghold for Otter, and they are widespread and relatively common throughout the island (Reid *et al.*, 2013).

The number of recent Otter sightings is low around the project location, however they are likely to commute around the area. No signs of Otter were noted on site visit, Otter were sighted before dredging works at the site in 2023.

Harbour and Grey seals are successful aquatic predators that feeds on a wide variety of fish, cephalopod and crustacean species. For individual seals of all ages, intervals between foraging trips in coastal or offshore waters are spent resting ashore at terrestrial or intertidal haul-out sites, or in the water (NPWS, 2012). Seals are highly mobile and may remain at sea for extended periods, especially outside the breeding season travelling distances of several hundred kilometres from breeding colonies (Cronin *et al.* 2013).

Harbour Seals and grey seal have both been recorded in Lough Swilly. In August of 2017 and 2018, the Sea Mammal Research Unit (SMRU) of the University of St Andrews carried out an aerial thermal-imaging survey of harbour seal (*Phoca vitulina*) and grey seal (*Halichoerus grypus*) numbers and distribution around Ireland. The survey recorded individual sightings of grey seal in Lough Swilly, around Buncrana with larger haul out areas c.10 harbour seals to the south of Rathmullan/ Ramelton area.

In the wider context of the Inishowen peninsula and the north coast 431 sightings of cetaceans were recorded and verified by IWDG in the 10 yrs 2015-2025, comprising 6 species, of which the biggest no. is of bottlenose dolphin at 1,879 followed by 1078 common dolphin, 798 dolphin of undetermined species, 212 harbour porpoise and 199 possible porpoise, 49 Rissos dolphin, 25 minke whale, 10 undetermined cetacean species, 7 humpback whale, 3 undetermined whale species. 30 basking sharks were also recorded. 4266 individuals were recorded in total.

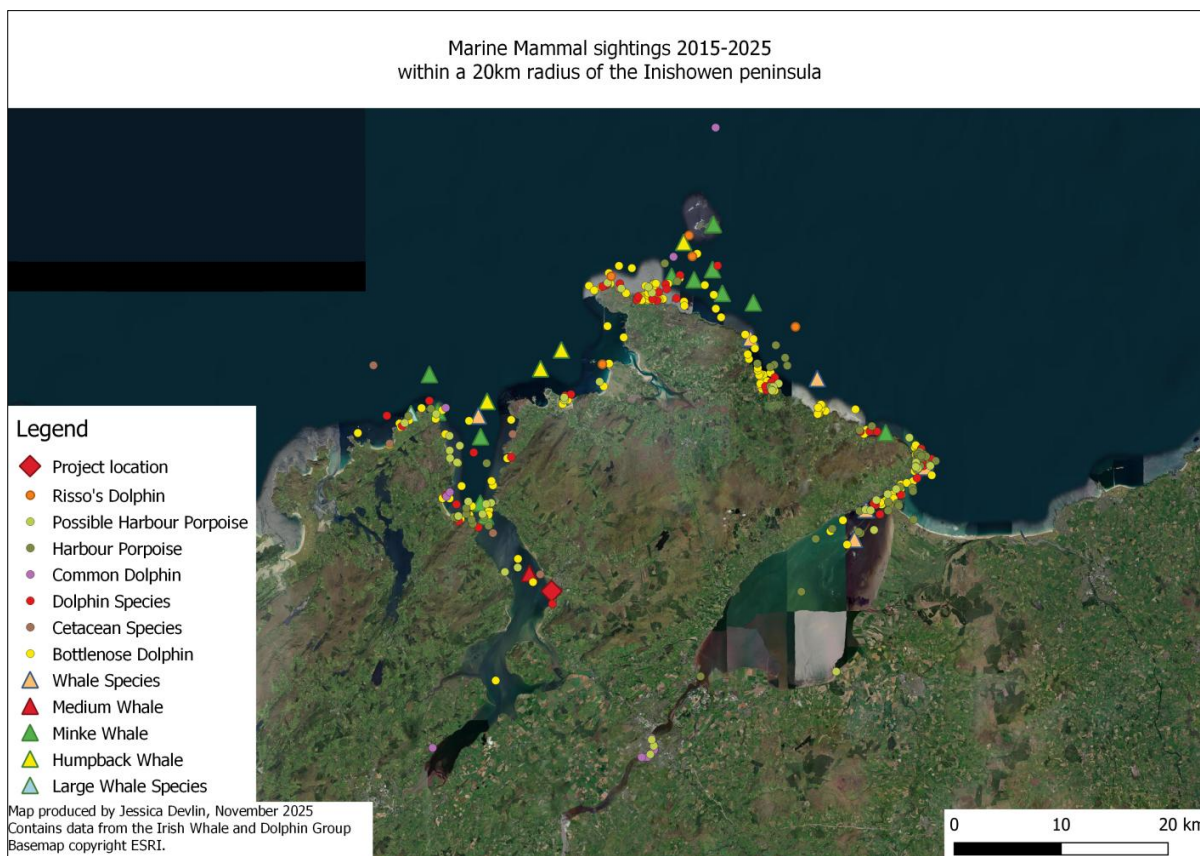


Figure 6.4 Map of cetacean distribution within a 20km radius of the Inishowen peninsula 2015- 2025.

Of the 431 sightings, 84 were recorded in Lough Swilly comprising 5 species of which the biggest number is bottlenose dolphin at 183, followed by 106 dolphin of undetermined species, 71 possible harbour porpoise, 39 harbour porpoise, 29 common dolphin, 8 minke whale, 7 undetermined cetacean species, and 3 humpback whale and 3 undetermined whale species. 7 basking sharks were also recorded.

6.4 Atlantic Salmon (*Salmo Salar*)

Atlantic salmon populations are listed in Annex II of the EU Habitats Directive (92/43/EEC). Atlantic Salmon is also listed as an Annex V species, whereby Member States must ensure that their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status. Internationally the protection and conservation of salmon is managed through North Atlantic Salmon Conservation Organization (NASCO). Irish salmon stocks have been managed on a river-by-river basis since 2007 with conservation limits (CL) based on maximum sustainable yield (MSY) (White et al. 2016). The Wild Salmon and Sea Trout Tagging Scheme Regulations 2018 (S.I. No. 585 of 2018) along with the Conservation of Salmon and Sea Trout bye-laws provides protection to both of these species in Ireland. Inland Fisheries Ireland (IFI) is the statutory body with the responsibility for the protection, development and management of the inland fishery resource within the State.

Each river has an individual CL which is the number of adult salmon required to maintain a healthy population of wild Atlantic Salmon. Rivers exceeding 100% of CL are open for salmon angling with a

total allowable catch in place. In the absence of a surplus on a river, Catch and Release (C&R) options are set for rivers meeting between 50% -100% of their Conservation Limit.

Salmonid habitat requirements

Salmonids need cool, clean, flowing water with adequate pool and riffle sequences, and suitable gravel for survival. Their lifecycle begins with spawning when the adult fish return to their native river to lay redds in gravel beds. The eggs remain in the redd throughout winter and hatch in spring as alevins. As alevins they depend on a yolk sac for primary nutrition until they become fry/ parr when they feed mainly on invertebrates. As smolt, usually after around 2 years, they migrate to sea, returning to their river of origin to spawn as adults during the Autumn and Winter months (Hendry & Craig, 2003).

According to the Inland Fishery Ireland Status Report on Key Salmon Rivers in the North Western River Basin District (2011) the Leannan was substantially under its Conservation Limit. Water quality in parts of the Leannan system was identified as an issue in the 2011 IFI report, namely in the Lurgy and Glashagh Upper. Farm surveys carried out by the NRFB in the Lurgy catchment identified specific problems and this direct approach should assist in ensuring that the risks of discharges are restricted (IFI, 2011).

The Glashagh Upper was considered one of the more problematical sub-catchments in terms of water quality, with suspended solids from quarrying operations and unsustainable agricultural practices identified as contributing to water quality problems.

The Leannan and the Crana Rivers are currently catch and release. The Mill River is closed.

6.5 Sediment sampling

The project area occurs in an area of fine sand community complex, see figure 6.5 (NPWS, 2015).

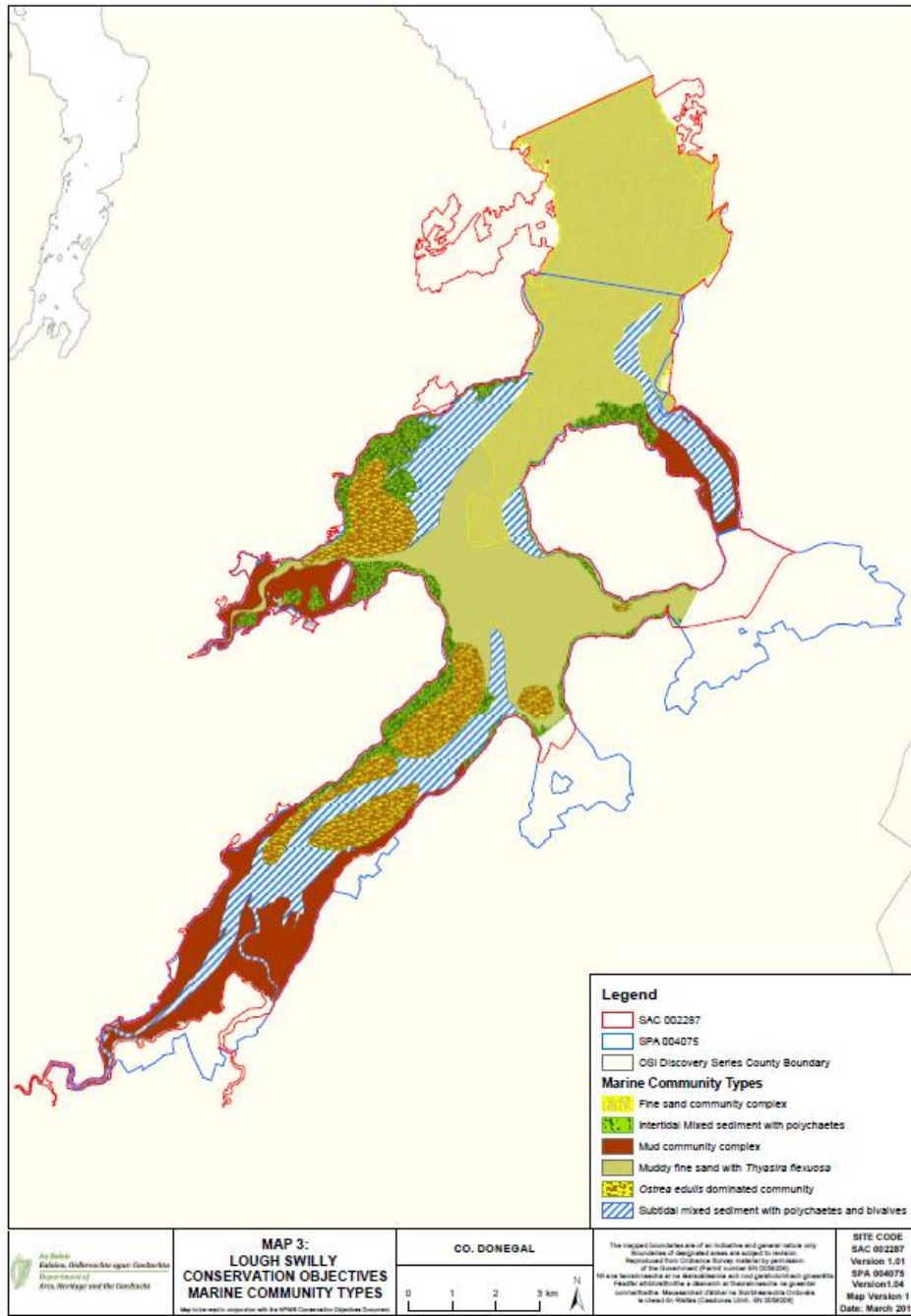


Figure 6.5 Extract from Lough Swilly Conservation Objectives, Marine Community Types (NPWS 2015).



Figure 6.6 Sediment sampling locations by Aquafact, 13 November 2024.

As part of the pre-dredging analytical requirements issued by the Marine Institute, Donegal Co. Co. is required to sample surface sediment from four locations within the licensed area in Lough Swilly. AQUAFAC (APEM Group) were commissioned by Donegal Co. Co. to carry out the sediment monitoring survey in Lough Swilly.

Sampling was carried out at four locations, see figure 6.6, followed by sediment, chemical and granulometric analysis of the samples. Activities were undertaken in accordance with the Dumping at Sea permit S0011-03 and any relevant EPA and Marine Institute guidance.

The sediment was found to be generally silty sand see tables 6.3 and 6.4.

None of the samples exceeded guidance levels for trace metals, Organochlorines and PCBs, Total Extractable Hydrocarbons, Tributyltin (TBT) and Dibutyltin (DBT), or Polycyclic Aromatic Hydrocarbons.

The SOCOTEC values for Mercury (Hg) are below action levels. The SOCOTEC values for Arsenic (As) indicate exceedance of the original lower action level of 9 mg/kg⁻¹. The addendum raised this threshold to 20 mg/kg, and only the As levels for ST-3 exceeded this revised limit. This is likely due to natural occurrences rather than contamination; Arsenic can occur naturally within bedrock and traces can occur from gravels and sands washed down from the river catchments; therefore, sediments within the dredge site are not considered to pose any risk of significant adverse effects to marine water quality.

The sediment has been deemed suitable for dumping at sea.

Visual Analysis of sediment Station	Description
ST01	Light brown silty SAND
ST02	Light brown silty SAND
ST03	Brown mottled grey slightly sandy CLAY
ST04	Light brown mottled grey silty SAND

Table 6.3 Visual analysis of sediment (Aquafact, 2024).

Physico-chemical results of each station. Station	Total Moisture @120°C %	Density Mg/m3	Gravel (>2mm) %	Sand (63-2000 µm) %	Silt (<63 µm) %	TOC %m/m	Carbonate Equivalent (%CO3) %m/m
ST01	31.2	2.71	2.09	85.5	12.41	0.57	17.7
ST02	25.5	2.67	0.00	93.17	6.83	0.4	19.3
ST03	60.9	2.69	0.00	54.84	45.16	1.93	21.2
ST04	36.3	2.67	1.92	68.08	30	0.89	18.9

Table 6.4 Physico-chemical results of each sampling station (Aquafact, 2024).

Benthic analysis

AQUAFACT International Services Ltd. was commissioned by Malachy Walsh and Partners on behalf of Donegal County Council to carry out a benthic survey of the disposal area around Buncrana Pier to document the baseline benthic communities. Figures 6.7 and 6.8 shows the sample locations and types of faunal communities recorded within the dredge and disposal areas at Buncrana Pier respectively, see Aquafact 2018 for full report.



Figure 6.7 Location of faunal sampling stations on 18 December 2017, by Aquafact.

The sediment type ranged from fine sand with very low mud and organic carbon levels inside the 2m contour line to medium, fine and very fine muddy sands with higher organic carbon levels outside the 2m contour line. All sediments were classified as sand, muddy sand or slightly gravelly sand by Folk (1954). Depths in the survey area ranged from 1.5 to 4m.

Variations in the community type and dominating species between the stations were evident. These local variations are common in the natural environment. Dominant species present throughout included the bivalves *Donax vittatus*, *Macomangulus tenuis*, *Spisula subtruncata*, *Abra alba*, *Thyasira flexuosa* and *Phaxas pellucidus*, the polychaetes and the polychaetes *Euclymene oerstedii* and *Melinna palmata*. All species recorded are typical of the sandy and muddy sand habitats encountered. One station, which was located inside the 2m countour line, was consistent with the habitat type assigned to the area by NPWS (2011); the fine sand community complex. The distinguishing species in this community are the polychaete *Spiophanes bombyx*, the oligochaete *Tubificoides benedii*, the bivalve *Macomangulus tenuis* and the amphipod *Bathyporeia pilosa*. The remaining 4 stations located outside the 2m contour line conformed to a different community type, one which NPWS (2011) recorded from further south in the bay, the muddy fine sand with *Thyasira flexuosa*. The bivalve *Thyasira flexuosa* is the distinguishing species for this community type. The polychaetes *Scoloplos armiger*, *Nephtys hombergii* and *Euclymene oerstedii*, the amphipod *Ampelisca brevicornis* and the bivalve *Phaxas pellucidus* are also commonly present.



Figure 6.8 Location of faunal communities within the study area, extract from Aquafact, 2018.

7.0 Detailed project proposals as supplied by Ayesa

Buncrana pier lies on the eastern shore of Lough Swilly. Sands/gravels that have accumulated due to shifting sand bars, storm driven sediment movement or infill from river flood events have caused a build up of sediment which requires maintenance dredging on an annual basis to keep the pier operational for the RNLI and local craft.

The proposed works at the site are planned to take place on an annual basis for a duration of 8 years, with the re-positioning/scattering of sediment in the region of 12,000m³ on an annual basis (2026 – 2034) across two dredge campaigns.

This maintenance dredging has been carried out annually to ensure the RNLI access isn't impeded by siltation at the pier. A plough dredger is used, and the dredged material redistributed on the bottom of the sea bed.

The dump site extends approximately 180m north, 290m south and 370m seawards of the pier structure, as outlined in Figure 7.1 below. The total area encompassed within the dump site is approximately 274,500m²

The total area encompassed by the dredge site is approximately 18,900m².

A plough-dredge, composed of a steel leveller, is dragged over the dredge area, thereby moving material along the bed to adjacent areas at a lower level. The result being local high points on the bed are levelled and design water depths are restored. As the sites will be plough dredged the dredge sites will also act as the dump-sites. In areas inaccessible to the plough dredger, an excavator

will be deployed either from the pier deck or, at lower tides, from the seabed to remove material from the site. This material (1,250m³ of the 12,000m³ proposed) will be relocated a short distance away, across the beach, by tipper lorry to the golf course adjacent under an existing Article 27 licence.

The plough will be used to pull, along the sea bed out of the berth alongside the pier seawards and to deeper water. The plough will work in series of movements from the berth alongside the pier and slipway and move seawards which each movement. Given the nature of the material and its grain size the vast majority will stay at bed level as it is being pulled along the seabed and material will also be in suspension within the water column. The material in suspension will drop out of the water column as the plough moves westwards from the pier location. There will be a localised plume associated with the ploughing movement. Currents and tidal movement will also influence the shape and extent of the plume with each plough movement. Given the naturally strong currents and tidal flows which pertain within Lough Swilly, it is expected that material will be evenly dispersed and the bed essentially re-profiled.

Plough dredging will be carried out over two dredge events during each year of the proposed eight year dredge campaign. Dredged volumes will comprise a maximum of 12,000m³ of material per annum, a total of 96,000 m³. Each plough dredge event is expected to a week to 10 days to complete, and is tide and weather dependent. Land dredging will take place immediately before or after the plough dredging over a period of c.5 days and is tide dependent.

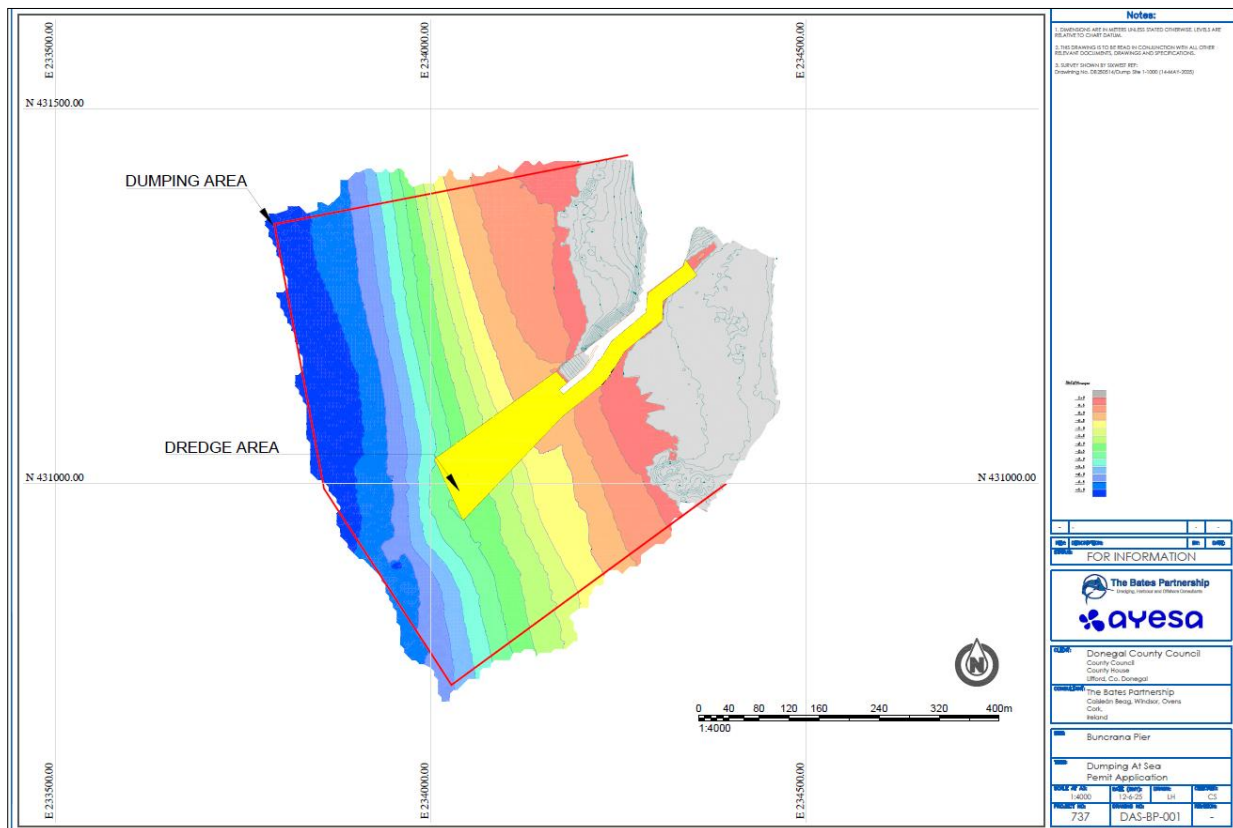


Figure 7.1 Buncrana bathymetry at proposed dredge area, proposed dredge area (shaded yellow) and dump area (red line).

Sediment transport model

Lough Swilly is a very hydrodynamic site and is one of 3 glacial fjords in Ireland. Malachy Walsh and Partners undertook sediment modeling for Donegal County Council. A Delft 3D depth integrated Hydrodynamic model of a section of Lough Swilly was developed to model the sediment transport associated with plough dredging proposed for the approaches to Buncrana pier.

A series of simulations were undertaken to model the effect of plough dredging in Buncrana Harbour (Malachy, Walsh and Partners, 2016). The plough dredging operation is simulated by introducing a discharge of sediment for a set period of time at a set velocity. The discharge is limited to one grid cell, this grid cell approximately represents the area to be dredged.

The rate of discharge modeled was varied over several runs to represent various plough dredging campaign scenarios. Table 7.1 gives a summary of the runs.

Scenario	Daily Dredge Duration (Hrs)	Campaign Duration (Days)	Daily Dredge Quantity (m3)	Total Dredge Quantity (m3)	Total Dredge (T)
1	8	13	1008	13104	34000
2	8	13	605	7862	20000
3	8	13	236	3080	8000
4	8	6	256	1534	4000

Table 7.1 Dredge campaign scenarios modelled. Extract from Malachy, Walsh and Partners (2016).

Extract from Malachy, Walsh and Partners

The cumulative sedimentation of Scenario 1 after 13 days discharge (13,800m³ total), is shown in Figure 7.1. It can be seen that the majority of the mobilised sediment has remained in the vicinity of the plough dredging area. The maximum deposition is approximately 250mm and localised to the same cell as the discharge/dredge area. Similarly the maximum instantaneous suspended transport, Figure 7.2, is low (6x10⁻⁷m³/s/m) and restricted to a small area around the dredge operation.

The results from Scenario 2, Figure 7.3 and Figure 7.4 are similar to Scenario 1 but with a lower maximum deposition of approximately 150mm with a lower suspended sediment transport.

Scenario 3 which simulates the dredging of approximately 8,000 tonnes over a 13 day period shows approximately 100mm of cumulative deposition, Figures 7.5 and 7.6 in the immediate vicinity of the dredge pocket.

Scenario 4 shows the least amount of deposition at approx 70mm, Figure 7.7. This scenario simulates a shorter dredge campaign of only 6 days with a total of 4000 tonnes dredged. The max suspended sediment transport in the dredging area is similar to the ambient transport as would be expected for such a small amount of dredging, Figure 7.8.



Figure 7.1 Scenario 1 Cumulative sedimentation at the end of 13 day discharge (extract from Malachy Walsh and Partners 2016).

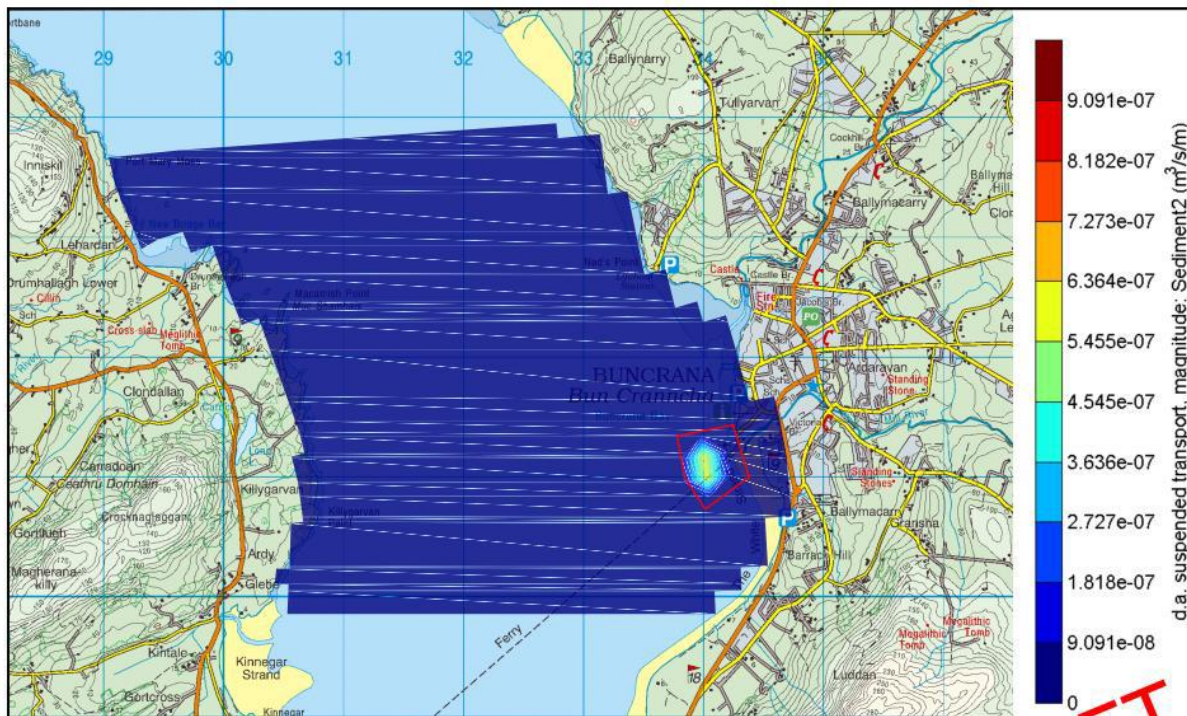


Figure 7.2 Scenario1 Maximum Suspended Sediment Transport (Instantaneous) (extract from Malachy Walsh and Partners, 2016).

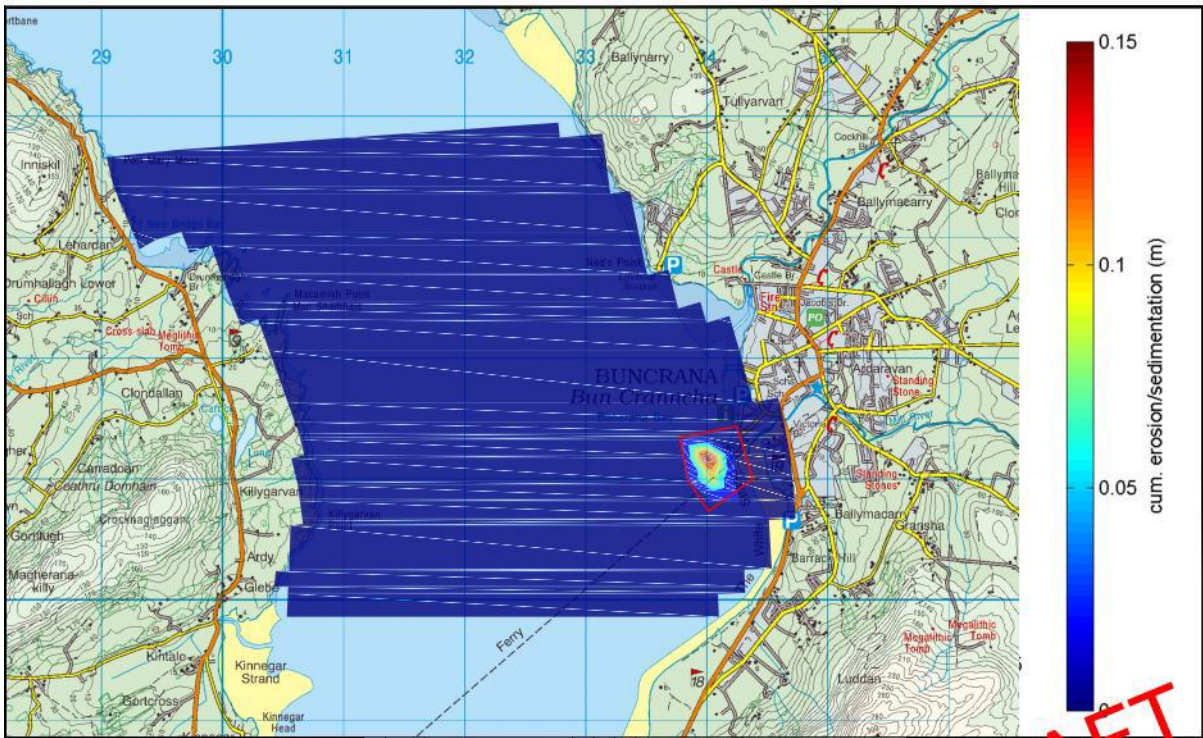


Figure 7.3 Scenario 2 Cumulative sedimentation at the end of 13 day discharge (extract from Malachy Walsh and Partners, 2016).

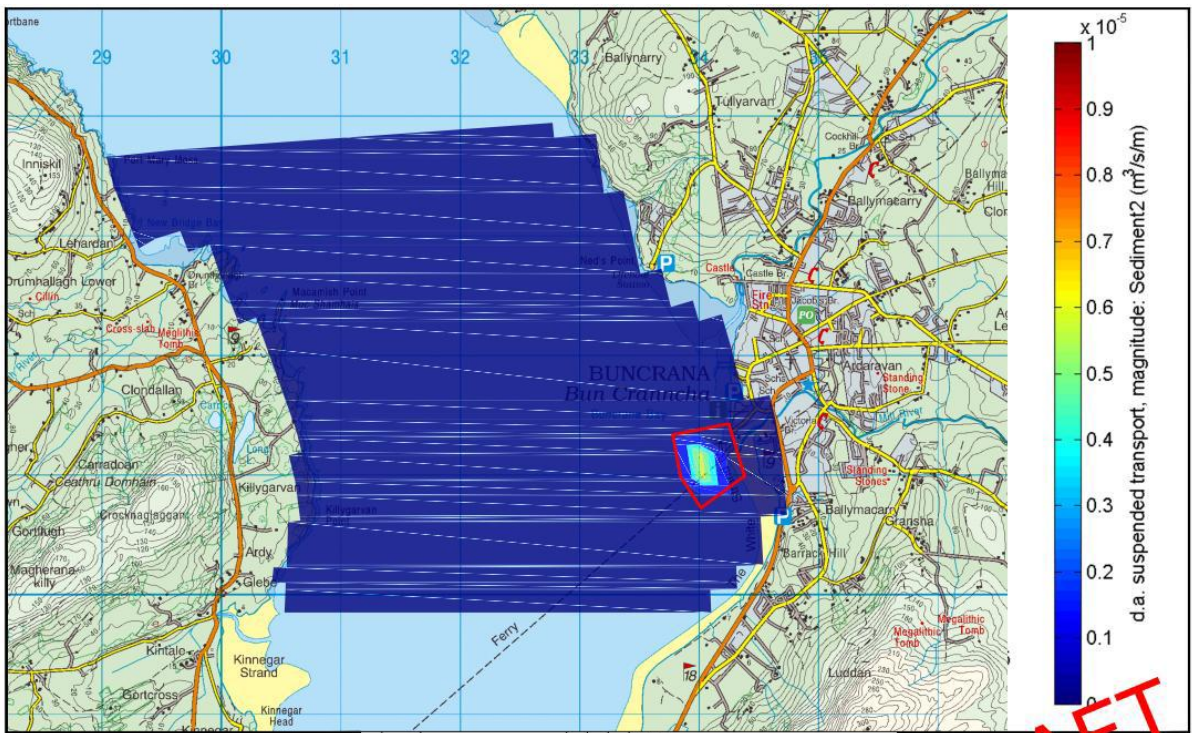


Figure 7.4 Scenario 2 Maximum Suspended Sediment Transport (Instantaneous) (extract from Malachy Walsh and Partners, 2016).

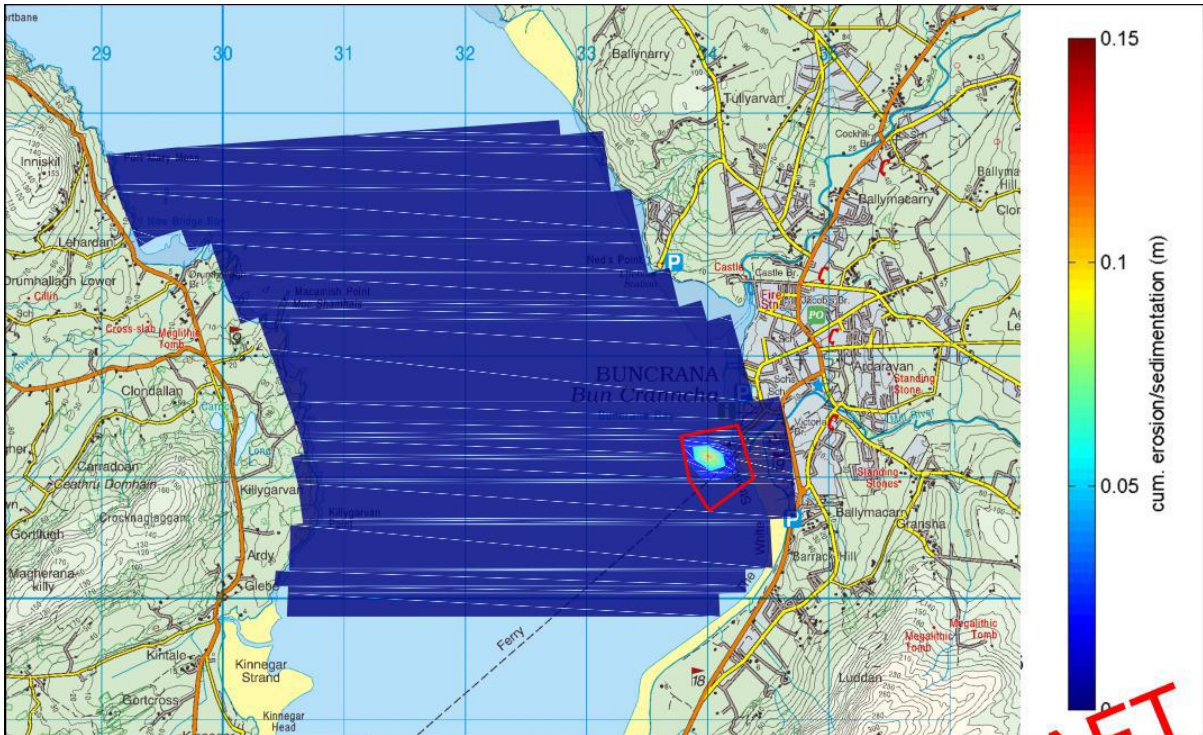


Figure 7.5 Scenario 3 Cumulative sedimentation at the end of 13 day discharge (extract from Malachy Walsh and Partners, 2016).



Figure 7.6 Scenario 3 Maximum Suspended Sediment Transport (Instantaneous) (extract from Malachy Walsh and Partners, 2016).

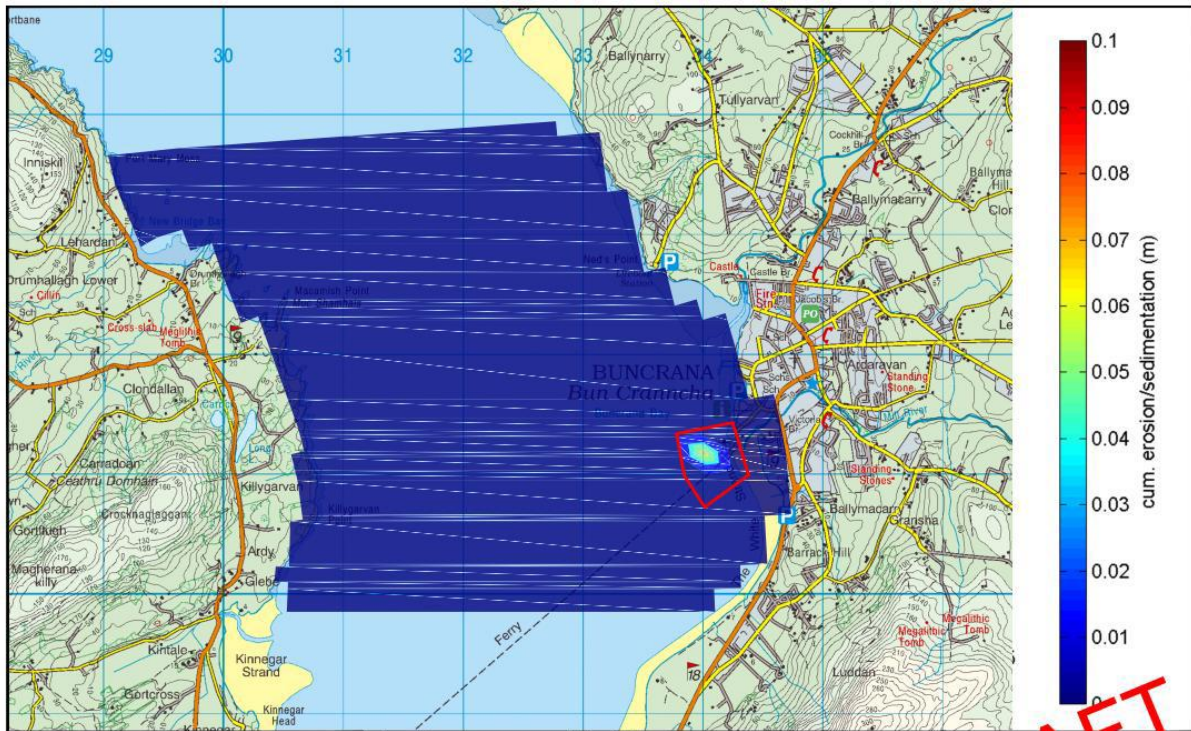


Figure 7.7 Scenario 4 Cumulative sedimentation at the end of 6 day discharge (extract from Malachy Walsh and Partners, 2016).

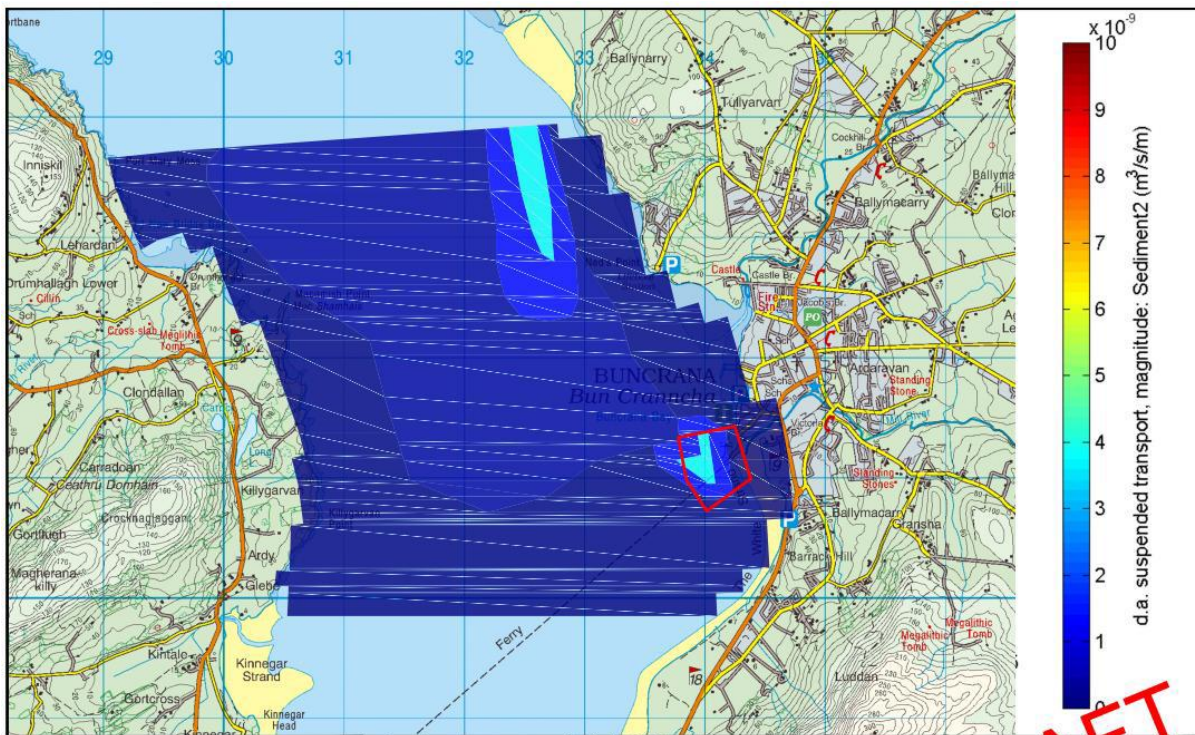


Figure 7.8 Scenario 4 Maximum Suspended Sediment Transport (Instantaneous) (extract from Malachy, Walsh and Partners, 2016).

Malachy, Walsh and Partners conclude:

...The impact on the sea bed of all 4 Scenarios were limited to within the immediate vicinity of the dredge area. The material discharged during dredging operations remains within the designated Dumping at Sea area. The impact on suspended sediment transport during dredging operation was shown to be of a low order of magnitude.... It was found that plough dredging of 8,000 tonnes over 13 days and 4,000 tonnes over 6 days had the least impact in terms of cumulative sedimentation....

The current proposal is to dredge 12,000m³, this amount lies between scenarios 2 and 3. If this is carried out within one campaign the impacts will remain low and within the proposed dump area. However if the activity is spread over two dredging campaigns impacts will be less.

8.0 Assessment of project proposal in terms of potential direct, indirect or in-combination impacts on Natura 2000 Sites.

Table 8.1 explores where there may be potential for the project to impact Natura Sites and their qualifying interests.

Attribute	Description	Potential Impact to Natura 2000 site / Effects on QI?
Size & Scale	<p>Small-scale maintenance dredging works. The application for a Dumping at Sea (DaS) licence is being sought for a period of 8 years. The annual maximum dredge yield will be 12,000m³ of material (two events per year).</p> <p>96,000m³ in total.</p> <p>1,250m³ of material will be moved by tipper lorry, across the beach to the golf course.</p>	<p>Potential for direct and indirect impacts.</p> <p>Pollution during works.</p> <p>Disturbance QI species.</p> <p>Potential effects on Estuaries [1130], Coastal lagoons* [1150], <i>Lutra lutra</i> (Otter) [1355], Wetlands and QI waterbirds and marine mammals.</p>
Land take	<p>Dredging and dumping will take place within Buncrana harbour. This area is within Lough Swilly SAC. No land take; sediment is being moved from one area of the harbour to another.</p> <p>1,250m³ of material which is inaccessible to the plough Dredger will be removed by tipper lorry and reused at the golf course under an existing Article 27 licence. This is an amenity area with the deposition site already established and used for golf course maintenance.</p>	No impact.
Distance from the Natura 2000 site or key features of the site	<p>Within Lough Swilly SAC and 1.9km from Lough Swilly SPA.</p> <p>Works outside designated estuary, coastal lagoon and wetland habitats.</p>	<p>Direct and Indirect impacts possible:</p> <p>Pollution during works.</p>

	<p>There are no features of interests, or supporting habitats within the deposition site at the golfcourse.</p> <p>No potential to impact other Natura sites directly however mobile marine species may travel to the area. Natura sites with marine mammal qualifying interests included for consideration as a precaution.</p>	<p>Disturbance QI species.</p> <p>Potential effects on:</p> <p>Estuaries [1130], Coastal lagoons* [1150], <i>Lutra lutra</i> (Otter) [1355], Wetlands and QI waterbirds and marine mammals and Salmon.</p>
Resource requirements (water abstraction etc.)	No resource requirements	No impact.
Emissions (disposal to land, water, or air)	<p>Inadvertent release of pollutants during works possible.</p> <p>For example:</p> <p>Leakages from machinery and vehicles/boat/dredger.</p> <p>Noise during dredge works and movement of materials.</p> <p>Increased turbidity during dredging events.</p> <p>Materials/ waste will comprise the dredge material this has been analysed to be found to be marginally contaminated with Arsenic at only one of the sampling stations. This likely due to natural processes. The sediment has been deemed suitable for use by the Marine Institute (<i>Pers comm.</i> Margot Cronin, Jul 2025). It will be relocated by dredging or reused under Article 27 in the immediate vicinity.</p>	<p>Direct and Indirect impacts possible :</p> <p>Potential effects on:</p> <p>Estuaries [1130], Coastal lagoons* [1150], [1330], [6410], <i>Lutra lutra</i> (Otter) [1355], Wetlands and QI waterbirds, marine mammals and Salmon</p>
Excavation requirements	<p>Plough dredging and use of excavators from the pier and shore.</p> <p>The works will involve the movement from areas of high deposition to areas of low deposition with the aim of reaching an optimum water depth of -2.5CD</p> <p>Material inaccessible to the plough dredger will also be removed from the beach and relocated at the golf course using tipper lorries.</p>	
Transportation requirements	Boat and dredger, excavators, tipper lorries. Staff /labourers.	
Duration of	Each plough dredge event likely to take c. a week	Potential to effect <i>Lutra lutra</i>

<p>construction, operation etc.</p>	<p>to 10 days and land dredge c. 5 days. Weather and tide dependent. Campaigns generally take place in spring / summer when conditions are best.</p> <p>Annual occurrence (2 campaigns per annum)</p> <p>Once works are complete there will be no change in operational activity/use at the site.</p>	<p>(Otter) [1355], QI waterbirds, marine mammals and Salmon.</p>
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Table 8.1. Project activity and the potential direct and indirect it may have.

9.0 Assessment of significance

As discussed in section 8, the threats of pollutants, noise and disturbance to qualifying interests are of greatest relevance in relation to the proposed project. This could result in habitat degradation and temporary displacement of QI's and SCI's from the area.

The marine environment is home to qualifying interests Otter, and marine mammals Harbour Porpoise, Bottlenose Dolphin and Grey and Harbour seal are all qualifying interests within the 100km zone of influence (marine). Salmon also use Lough Swilly when returning to their natal rivers. Water birds use Lough Swilly to feed forage and roost.

Table 9.1 explores further the likely significance of the project and the potential impacts identified, in terms of habitat loss / alteration, habitat degradation, disturbance to key species, habitat or species fragmentation, reduction in species density and changes in key indicators of conservation value, i.e. water quality.

9.1 Assessment of project proposal in terms of habitat loss, disturbance, fragmentation or reduction in species density:

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
<p>Lough Swilly SAC (002287) / within site 1130 Estuaries 1150 Coastal lagoons* 1351 Harbour Porpoise (<i>Phocoena phocoena</i>) 1355 Otter (<i>Lutra lutra</i>)</p> <p>Leannan River SAC (002176) / 15km 1106 Salmon (<i>Salmo salar</i>)</p> <p>Horn Head and Rinclevan SAC (000147) / 31km 1364 Grey Seal (<i>Halichoerus grypus</i>)</p> <p>Gweedore Bay and Islands SAC (001141) / 47km 1351 Harbour Porpoise (<i>Phocoena phocoena</i>)</p> <p>West of Ardara/Maas Road SAC (000197) / 54km 1365 Harbour Seal (<i>Phoca vitulina</i>)</p> <p>Rutland Island and Sound SAC (002283) / 62km 1365 Harbour Seal (<i>Phoca vitulina</i>)</p> <p>Donegal Bay (Murvagh) SAC (000133) 67km</p>	<p>Direct loss of habitat There will be no direct loss of habitat within the Natura 2000 sites. None of the Qualifying Interest habitats of the SAC or SPA are present within the footprint of the development. There will be no direct loss of habitat for species using the area. The project proposal is outside SAC QI habitats.</p> <p>Indirect loss of habitat: A species may stop using a habitat due to increased disturbance or habitat degradation on site.</p> <p>Dredging and tipper truck activity: Habitat degradation due to hydrological impacts: Marine habitats surrounding the proposed dredge site are potentially at risk from hydrological impacts arising from works.</p> <p>Water quality: The proposed dredge campaign could (if done incorrectly) result in physical pollution of the Lough from suspended sediments or fuel spills. This in turn could negatively impact on some QIs of the SAC's and the SCI's of the SPA, as the integrity of these features is linked to water quality. An acute pollution incident could have significant effects on Qualifying Interests, potentially causing death and/or pollution and degradation of marine habitats and feeding sources. If this pathway is eliminated then this risk is reduced significantly. Careful site management, in particular hydrocarbon, fuel, and any other hazardous materials on site is required. Specialist contractors with experience in working in marine environments will be appointed to implement the dredging and Article 27 reuse activity. Standard best practice guidelines will be adhered to such that the risk posed by such substances to the marine environment is minimised. The risk of pollution from works is further reduced by the scale and nature of works. Site specific mitigation is not required in terms of hydrocarbon/hazardous material management.</p> <p>During dredging operations, there will be a localised increase in turbidity within c.50-100m of the excavator. This will generate a localised dredge plume in the immediate vicinity of the works. This</p>	<p>No impact. No potential for significant effects.</p> <p>Potential impact. Potential for significant effect on: 1106 Salmon (<i>Salmo salar</i>)</p>

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
<p>1365 Harbour Seal (<i>Phoca vitulina</i>) Slieve Tooney/Tormore Island/Loughros Beg Bay SAC (000190) / 74km 1364 Grey Seal (<i>Halichoerus grypus</i>) St. John's Point SAC (000191) / 83km 1349 Common Bottlenose Dolphin (<i>Tursiops truncatus</i>) Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625) / 92km 1351 Harbour Porpoise (<i>Phocoena phocoena</i>) Skerries and Causeway SAC (UK0030383) / 47km Harbour porpoise (<i>Phocoena phocoena</i>) Special Protected Areas (SPA) with potential for significant effects Lough Swilly SPA (004075) / 1.9km Birds A005 Great Crested Grebe (<i>Podiceps cristatus</i>) A028 Grey Heron (<i>Ardea cinerea</i>)</p>	<p>is a temporary impact; once dredging is completed some of the material will settle out and be deposited on the sea bed and some will remain in suspension within the water column, before settling. Generally speaking disturbing and removing sediments from the sea bed carries with it some risk of releasing pollutants and contaminants, if they are present in the sea bed. Dredge material has been sampled and analysed and according to the <i>Guidelines for the assessment of dredge material for disposal in Irish waters</i>. Sediments sampled are classified as Class 1:- Contaminant concentrations less than level 1. Uncontaminated: no biological effects likely. They have been deemed suitable for dumping at sea which requires a higher criterion, than that for landfill. They therefore do not pose a risk in terms of pollution or contamination of Lough Swilly and the marine environment.</p> <p>Estuaries Significant water quality impacts are not envisaged within Lough Swilly SAC Sediment transport modelling has shown that the majority of the mobilised sediment is expected to remain in the vicinity of the plough dredging area following dredge activity. The project is c. 2km from Estuary habitat. No changes to habitat area or community distribution within estuary habitat is envisaged. Habitat degradation of Estuaries is not envisaged as a result of the dredging campaign.</p> <p>Coastal lagoons With regard to coastal lagoons, the proposal is not expected to result in any change. Given the conclusions regarding water quality impacts, the nature and scale of the proposal, and the 9km distance between the dredging activity and coastal lagoons significant habitat degradation of coastal lagoons is not envisaged.</p> <p>Atlantic Salmon Any impacts to water quality arising from increased suspended sediment during each dredge event are expected to be both localised and temporary in nature as re-suspended material is expected to settle out quickly and evenly within the dredge/disposal areas. Effects (if any) on Atlantic Salmon will be temporary, mitigation is however required to reduce the potential for effects on migrating salmon.</p>	

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
<p>A038 Whooper Swan (<i>Cygnus cygnus</i>) A043 Greylag Goose (<i>Anser anser</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A050 Wigeon (<i>Anas penelope</i>) A052 Teal (<i>Anas crecca</i>) A053 Mallard (<i>Anas platyrhynchos</i>) A056 Shoveler (<i>Anas clypeata</i>) A062 Scaup (<i>Aythya marila</i>) A067 Goldeneye (<i>Bucephala clangula</i>) A069 Red-breasted Merganser (<i>Mergus serrator</i>) A125 Coot (<i>Fulica atra</i>) A130 Oystercatcher (<i>Haematopus ostralegus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A164 Greenshank (<i>Tringa nebularia</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A182 Common Gull (<i>Larus canus</i>) A191 Sandwich Tern (<i>Sterna</i></p>	<p>Wetland As discussed impacts from suspended sediments during each dredge event are expected to be both localised and temporary, significant alteration of wetland habitat within Lough Swilly SPA, is not envisaged due to the distances involved (1.9km)</p> <p>Otter / Harbour Porpoise / Waterbirds Localised water quality impacts associated with the proposal may result in some temporary alteration of marine habitat within the dredge/dump zones; however, such impacts will be temporary and localised. Bearing these factors in mind, and that habitat of at least similar or higher ecological value is expected to be abundant within Lough Swilly, any such potential impacts arising from dredging activity are not considered to be significant.</p> <p>Operation Operation at the Pier will not change as a result of the project. No significant impacts anticipated during the operational phase.</p>	
	<p>Disturbance / Displacement: Noise and vibration: Disturbance and displacement of QI and SCI species could potentially occur within the vicinity of the proposed dredging activities.</p> <p>Marine mammals (and basking shark) Dredging Activities: Marine dredging is the excavation of substratum from the seabed and disposing of it at a different location. Dredging activity usually occurs in a fixed area for a prolonged period of days or weeks. Therefore it has the potential to introduce continuous anthropogenic sound at levels that may impact upon marine mammal individuals and/or local populations and the risk of acoustic impacts associated with this activity should be considered to ensure good environmental management. Dredging produces continuous broadband low frequency sound below 1kHz with Sound Pressure Levels (SPLs) between 168-186 dB re 1µPa @ 1m (Todd et al 2015). This research supports NPWS guidance which state that static seabed-related activities such as dredging, while generally of less concern, may produce underwater sound at sound pressure levels up to 190 dB re: 1 µPa and at</p>	<p>Potential impact. Potential for significant effect on: Marine Mammals Otter Atlantic Salmon</p>

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
<p><i>sandvicensis</i>) A193 Common Tern (<i>Sterna hirundo</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) Habitats Wetlands</p>	<p>frequencies overlapping marine mammal hearing, thereby increasing the potential for auditory masking, avoidance and other disturbance effects (DAHG, 2014). Direct effects to marine mammals in the project area are possible. Otter: For mammal species such as Otter, disturbance effects would not be expected to extend beyond 150m (NRA, 2009). Otter are likely to commute along the coastline. Generally these largely nocturnal species are unlikely to be impacted by operational activities or noise during works, because their movements are outside daylight hours, however if their resting sites are in close proximity to the pier noise and vibration could cause Otter to move away. Given existing vessel operations in the area i.e. car-ferry and lifeboat, otters in the area are expected to be habituated to at least some degree of activity within the confines of the harbour. It is considered unlikely that the proposal has the potential to result in significant disturbance/displacement impacts to Otter given the nature of the works, the minor scale and temporary nature of the proposal, and the small area within which dredge activity will take place. There were no signs of Otter in the vicinity of the Pier or within a 250m radius of the site, however Otter were recorded in the vicinity of works during previous campaigns, mitigation is therefore required.</p> <p>Waterfowl: Lough Swilly is designated for a large number of wintering waterbirds and a smaller number of breeding waterbirds. Historical Irish Wetland Bird Survey (IWeBS) data was available for the site. The area near the project site falls within an IWeBS subsite named Lisfannon OA482. IWeBS data from the past 5 years shows 19 of the 24 species for which the site is designated, occur at Lisfannon within the subsite OA482. Generally the numbers are low across all species and do not reach national or international 1% figures. Timing of works is usually during spring / summer months, when conditions are optimal, in terms of weather /sea conditions in the marine environment. Timing therefore removes any potential impact to wintering waterfowl. Black Headed Gull, Sandwich Tern and Common Tern have been recorded in Lisfannon OA482 during the winter and summer months. These are Special Conservations Interest Species (breeding) in the SPA.</p>	

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
	<p>The Black headed gull breeds both on the coast and inland where they will often nest in colonies. It usually nests on the ground in wetland areas, such as bogs and marshes and will also use man made lakes (Birdwatch Ireland, 2025). Sandwich Tern nest colonially on the ground, mainly on the coast but with some colonies inland. It nests on islands, shingle spits and sand dunes</p> <p>The Black Headed Gull, Sandwich and Common Tern are known to breed on the eastern side of Inch Island and in Blanket Nook (Johnston, 2011), some 7km and 10 km away respectively. Bird species are particularly vulnerable to direct disturbance due to noise and/or vibration. For waterbirds, construction-related disturbance effects would not be expected to extend beyond a distance of c. 2km (SNH, 2007). Works throughout the summer months will therefore not impact SCI breeding birds.</p> <p>If, as can happen, proposed timing was to change and works extended into the autumn/winter season it is unlikely that the wintering bird species would be impacted significantly. There is ample alternative habitat in the immediate area and beyond for temporarily displaced birds. Data from the 2023 dredge campaign detailed the bird species recorded during the dredge campaign which suggests birds are not significantly impacted by the activity and remain in the area.</p> <p>This coupled with the expanse of Lough Swilly, means that there is ample habitat remaining. Works are temporary in nature; it is reasonable to assume that during periods of low or no activity on site birds will continue to use the area. Birds are also habituated to vessel activity in the harbour.</p> <p>All other water bird species recorded are below 1% national numbers, temporary effects of the project (if any) are unlikely to affect the conservation status of those species. Significant impacts are not likely, mitigation is not required.</p> <p>Atlantic Salmon</p> <p>The project has the potential to interact with two life stages of the Atlantic Salmon: the smolt stage, when the juvenile salmon move from freshwater to the feeding grounds in the sea, and the adult spawning migration when adults return to their natal river to spawn. Dredging and excavators may in theory impact salmon populations by delaying or preventing migration to and</p>	

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
	<p>from the Leannan, Crana and Mill Rivers. Risk is reduced by the size and scale of the project and the small area of the lough impacted by the sediment plume. Fish returning to the Leannan and Crana systems are unlikely to be impacted by the works. Populations returning/leaving the Mill River may experience minor temporary impacts, mitigation is required.</p> <p>Operation at the pier There is already a pier at this location. The normal intensity of activity during project operational phase will be lower than that of the time-limited dredging phase. The operational phase of the project is unlikely to have any significant effects on QI and SCI interests in terms of disturbance, displacement or injury. No mitigation required.</p>	
	<p>Habitat degradation due to the spread of the invasive species, disease and pathogens Biosecurity is the prevention of disease-causing agents or invasive species entering or leaving any place where they can pose a risk to plants, animals or humans. Biosecurity is therefore a key aspect to protecting or native biological diversity. It is unfortunately incredibly easy to inadvertently spread non native invasive species, diseases and animals, great care must be taken when entering into sensitive environments, so as not to introduce or spread them. For example, a visiting boat which has been used in another waterbody containing invasive species can carry this species in, if it hasn't been sufficiently disinfected and dried out. The vectors and pathways by which non-native invasive species are transported are many, and result from the diverse array of human activities which operate over a range of scales. Primary introductions often result from the accidental transport, for example visiting boats, vehicles or equipment. Secondary introductions result from the expansion of a species from the initial place of establishment. Secondary spread will normally include a wider range of vectors that may act either separately or together (Stokes et al., 2004). Once an invasive species or disease enters or leaves any aquatic space it can pose a risk to our</p>	<p>Potential impact. Potential for significant effect on: Marine Mammals Otter Atlantic Salmon Lough Swilly SPA SCI Birds</p>

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
	<p>ecosystems and biodiversity. Both pose different implications and are hard to remediate and eradicate. Fish parasites, pathogens and diseases represent a significant threat to the health status of our water bodies. The introduction or transfer of such pathogens or diseases has the potential to wipe out large populations of fish in affected waters or catchments (IFI, 2010). This could over the long term have consequences for Atlantic Salmon, Marine Mammals, Otter and SCI birds.</p> <p>Operation Once the dredging is complete there will be no change in use at the site. No significant impacts anticipated.</p>	
	<p>Habitat or Species fragmentation: There will be no habitat or species fragmentation. Sediment plume will be small and temporary.</p>	No potential for significant effects.
	<p>Reduction in Species Density: A reduction in species density would be as a consequence of sedimentation, pollution, release of contaminants during dredging and the introduction of invasive species, and disturbance, displacement or injury of a species while feeding, breeding or commuting to a feeding/breeding area. It has been concluded above that the risk of hydrological impacts are low. Standard management practices are sufficient to negate any risks. Dredge material is suitable for dumping at sea. There is no significant risk of impact to protected habitats or species species.</p> <p>Introduction of invasive species disease or pathogens could reduce species density over the long term for marine mammals, Atlantic Salmon Otter and waterbird species.</p> <p>Degradation of habitat due to noise and vibration could result in displacement of species from feeding areas, migration routes, ultimately causing a reduction in species density. Biosecurity measures and protection of marine mammals and Atlantic Salmon required.</p> <p>Operation Operation at the Pier will not change as a result of the project.</p>	Potential impact. Potential for significant effect on: Marine Mammals Otter Atlantic Salmon Lough Swilly SPA SCI species

Special Areas of Conservation (SAC) with potential for significant effects and their Relevant Qualifying Interest	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
	No significant impacts anticipated during the operational phase.	
	<p>In combination: There are no other planning applications pending at the time of writing. Any other future projects will be subject to Appropriate Assessment.</p> <p>There are a number of activities and licences in Lough Swilly. Works are small relative to Lough Swilly and temporary; potential for in-combination and cumulative effects to be explored further.</p>	<p>Potential impact: Potential for significant effect on.</p> <p>Marine Mammals Otter Atlantic Salmon Lough Swilly SPA SCI species</p>

Table 9.1 Assessment of project proposal in terms of habitat loss, disturbance, fragmentation or reduction in species density and in-combination effects

10.0 NATRUA IMPACT STATEMENT

This section of the report has been compiled to provide the competent authority with adequate information to make an Appropriate Assessment (AA) of the Project under Article 6(3) of the Habitat Directive. The NIS will assist the competent authority in determining whether or not the proposed development will adversely affect the integrity of any Natura 2000 sites, either alone or in combination with other plans and projects, taking into account their conservation objectives. In reaching a conclusion in this regard, consideration is given to any mitigation measures necessary to avoid or reduce any potential negative impacts.

The report should be read in conjunction with the previous sections 1-9, and supporting information submitted with the application.

The project proposal has been assessed in the Screening process in terms of the likely impacts the proposal may have, before mitigation, on the Natura 2000 sites in the area. The significance of impacts identified has been determined.

To summarise the following have been identified as potential impacts with the potential to cause significant effects:

- Habitat degradation due to hydrological impacts
- Noise and vibration causing disturbance, displacement or injury
- Habitat degradation due to the spread of the invasive species, disease and pathogens
- Reduction in Species Density
- In-combination effects

10.1 Mitigation measures

Mitigation measures: Habitat degradation due to hydrological impacts

Atlantic Salmon

To reduce the effects (if any) of increased turbidity and sediment suspension on migrating Atlantic Salmon works will be carried out during daylight hours. Smolt migration usually occurs in the hours of darkness (Thorpe *et al*, 2006) and returning salmon can occur at any time, however when adult salmon return to their natal rivers to spawn, they also often move upstream during periods of reduced light/darkness (Martin, 2018).

Mitigation measures: Noise and vibration causing disturbance, displacement or injury

Marine Mammals

NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) recommended that stated mitigation procedures for dredging are followed and monitored by a suitable qualified Marine Mammal Observer (MMO).

A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals and to log all relevant events using standardised data forms (as presented in Appendix 7; DAHG, 2014).

Dredging

A dedicated Marine Mammal Observer will conduct a 30 minute watch for marine mammals within 500m of the dredging vessel prior to start up. If a seal, cetacean, basking shark, turtle or otter is

sighted within 100m of the vessel, start-up must be delayed until the animal is observed to move outside the mitigation zone or the 30 minutes has passed without the animal being sighted within the mitigation zone.

Pre-start monitoring

Dredging activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible.

An agreed and clear on-site communication signal must be used between the MMO and the Works Superintendent as to whether the relevant activity may or may not proceed, or resume following a break (see below). It shall only proceed on positive confirmation with the MMO.

In waters up to 200m deep, the MMO shall conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity is due to commence. Sound-producing activity shall not commence until at least 30 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.

This prescribed Pre-Start Monitoring shall subsequently be followed immediately by normal dredging operations. The delay between the end of Pre-Start Monitoring and the necessary full dredging output must be minimised.

Dredging operations

Once normal dredging operations commence, there is no requirement to halt or discontinue the activity at night-time, nor if weather or visibility conditions deteriorate nor if marine mammals occur within a 500m radial distance of the sound source, i.e., within the Monitored Zone.

Breaks in sound output

If there is a break in dredging sound output for a period greater than 30 minutes (e.g., due to equipment failure, shut-down or location change) then all Pre-Start Monitoring must be undertaken in accordance with the above conditions prior to the recommencement of dredging activity.

Reporting

Full reporting on MMO operations and mitigation undertaken must be provided to the Regulatory Authority as outlined in Appendix 7 of DAHG, 2014.

The MMO will assume the collective role of protected species observers (PSOs), and will implement NPWS guidelines with regard to basking shark and any other protected megafauna that could occur during works.

Otter

Works must take place during day light hours so as not to disturb or risk injury to Otter.

Atlantic Salmon

Ideally dredging should take place outside of smolt stage and spawning season. Smolts tend to leave the river systems in March to May, and migratory fish return from July to December. If this is not possible due to operational requirements, dredging will only take place during daylight hours, because migratory movement usually occurs in the hours of darkness.

Mitigation measures: Habitat degradation due to the spread of the invasive species, disease and pathogens

Marine Mammals, Otter, Atlantic Salmon, Lough Swilly SPA SCI Birds

Biosecurity measures to avoid the introduction or spreading of non-native invasive species and pathogens will be integrated into the daily operating procedures on site.

In the coastal / marine environment

Works will comply with IFI *Guidance on Biosecurity*, 2010 and CAISIE Guidelines 2022: Control of Aquatic Invasive Species and the restoration of Natural Communities in Ireland and Marina Code of conduct: Inspect – remove - dispose

Any plant or machinery to be used in the intertidal area will be washed down at a designated offsite location prior to mobilising.

All boats, equipment, footwear should be inspected for attached plant or animal material before entering or leaving. If found, it should be removed before entering the intertidal area, and disposed of carefully. It must not be discarded in or around the site.

All equipment, boats and footwear should be cleaned and disinfected (e.g. 1% solution of Virkon® Aquatic or another proprietary disinfectant product) at the water's edge or as soon as possible before/after entering / leaving. If no disinfectant is available, all equipment and clothing should be allowed to dry fully, for at least 24 hours before returning to a watercourse (IFI, 2022).

Operation

A biosecurity protocol should be established for Buncrana Pier to reduce the risk of introduction and spread of disease-causing agents or invasive species.

Species or Habitat fragmentation

There will be no species or habitat fragmentation, due to the nature, scale and characteristics of the project.

Reduction in Species Density

A reduction in species density would be as a consequence of sedimentation, pollution, release of contaminants during dredging and the introduction of invasive species, and disturbance, displacement or injury of a species while feeding, breeding or commuting to a feeding/breeding area.

Mitigation measures: Reduction in species density

Marine Mammals, Otter, Atlantic Salmon, Lough Swilly SPA SCI Birds

The mitigation measures pertaining to habitat degradation due to hydrological impacts, disturbance, displacement or injury, and invasive species, disease and pathogens will also mitigate in this instance.

10.2 Residual effects

The project has been assessed in terms of the potential for residual effects which may exacerbate the pressures and threats identified for each site (see appendix 2) and which may affect reaching specified targets in the Conservation Objectives for the **relevant qualifying interests of the Natura 2000 sites identified**. All other qualifying interests were screened out (see section 5).

After mitigation the potential for the project to significantly impact on the following designated sites and Annex species has been removed, see table 10.1

Residual impacts pertaining to the project are not anticipated.

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
<p>Lough Swilly SAC To maintain the favourable conservation condition of Estuaries</p>	<p>T1. Habitat area: The permanent habitat area is stable or increasing, subject to natural processes. T2. Community Distribution: The following communities should be conserved in a natural condition: Fine sand community complex; Intertidal mixed sediment with polychaetes; Subtidal mixed sediment with polychaetes and bivalves; Muddy fine sand with <i>Thyasira flexuosa</i>; Mud community complex and <i>Ostrea edulis</i> dominated community.</p>	<p>No. Project c.4km outside the habitat area. No changes to habitat area or community distribution.</p>	<p>No.</p>
<p>To restore the favourable conservation condition of Lagoons</p>	<p>T1. Habitat area: Area stable, subject to slight natural variation. Favourable reference area 206ha- Inch Lough 176ha; Blanket Nook 30ha. T2. Salinity regime: Maintain median annual salinity within natural ranges: Inch 0.1 - 3.0psu; Blanket Nook 10 - 20psu T3. Hydrological Regime: Maintain current annual water level fluctuations and minima. T4. Barrier: Maintain permeability, including appropriate management of sluices. T5. Water quality: Chlorophyll a: Reduce annual median chlorophyll a to less than 2.5µg/L at Inch; less than 5µg/L at Blanket Nook. T6. Water quality: Molybdate Reactive Phosphorus (MRP): Reduce annual median MRP to less than 0.01mg/L at Inch; less than 0.02mg/L at Blanket Nook T7. Water quality: Dissolved Inorganic Nitrogen (DIN): Reduce annual median DIN to less than 0.15mg/L at Inch; less than 0.4mg/L at Blanket Nook. T8. Depth of macrophyte colonization: Increase colonisation to maximum depth of both lagoons T9. Typical plant Species: Maintain number and extent of</p>	<p>No. Project 9km outside the habitat area. Project not expected to result in any change in habitat.</p>	<p>No.</p>

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
	<p>listed lagoonal specialists, subject to natural variation</p> <p>T10. Typical invertebrate species: Maintain listed lagoon specialists, subject to natural variation.</p> <p>T11: Negative indicator Species: Negative indicator species absent or under control.</p>		
To restore the favourable conservation condition of Otter	<p>T1. Distribution: No significant decline</p> <p>T2. Extent of terrestrial. Habitat: No significant decline. Area mapped and calculated as 95.7ha above high water mark (HWM); 44.0ha along river banks/ around pools.</p> <p>T3. Extent of marine Habitat: No significant decline. Area mapped and calculated as 839.5ha.</p> <p>T4. Extent of freshwater (river) habitat: No significant decline. Length mapped and calculated as 15.5km.</p> <p>T5. Extent of freshwater(lake/lagoon) Habitat: No significant decline. Area mapped and calculated as 83.7ha</p> <p>T6. Couching sites and Holts: No significant decline.</p> <p>T7. Fish biomass Available: No significant decline.</p> <p>T8. Barriers to Connectivity: No significant increase.</p>	<p>Yes.</p> <p>Works to take during daylight hours to prevent risk of disturbance displacement or injury.</p>	No.
Harbour porpoise	No specific information in CO document for Harbour porpoise.	<p>Yes.</p> <p>NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.</p>	No.
Lough Swilly SPA To maintain the favourable conservation condition of bird populations	<p>T1. Population trend: Long term population trend stable or increasing.</p> <p>T2. Distribution: No significant decrease in the numbers or range of areas used by waterbird species, other than that</p>	<p>No.</p> <p>Project c. 2km from the SPA Works usually outside winter season.</p>	No.

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
A005 Great Crested Grebe (<i>Podiceps cristatus</i>) A028 Grey Heron (<i>Ardea cinerea</i>) A038 Whooper Swan (<i>Cygnus cygnus</i>) A043 Greylag Goose (<i>Anser anser</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A050 Wigeon (<i>Anas penelope</i>) A052 Teal (<i>Anas crecca</i>) A053 Mallard (<i>Anas platyrhynchos</i>) A056 Shoveler (<i>Anas clypeata</i>) A062 Scaup (<i>Aythya marila</i>) A067 Goldeneye (<i>Bucephala clangula</i>) A069 Red-breasted Merganser (<i>Mergus serrator</i>) A125 Coot (<i>Fulica atra</i>) A130 Oystercatcher (<i>Haematopus ostralegus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A164 Greenshank (<i>Tringa nebularia</i>)	occurring from natural patterns of variation.	Ample alternative habitat for displaced birds. No significant disturbance or impacts anticipated.	

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
A182 Common Gull (<i>Larus canus</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) Habitats Wetlands			
To maintain the favourable conservation condition of breeding bird populations Black-headed Gull <i>Chroicocephalus ridibundus</i> Sandwich Tern <i>Sterna sandvicensis</i> Common Tern <i>Sterna hirundo</i>	T1. Breeding population abundance: apparently occupied nests (AONs): No significant decline. T2. Productivity rate: fledged young per breeding pair: No significant decline. T3. Distribution: breeding colonies: No significant decline. The only known breeding site for Sandwich tern is on Inch Island.	No. Project c. 2km from the SPA Sufficient distance from breeding colonies. No significant disturbance or impacts anticipated.	No.
To maintain the favourable conservation condition of the wetland habitat in Lough Swilly SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.	Habitat area: The permanent area occupied by the wetland habitat is stable and not significantly less than the areas of 4,162, 2,419, 201 and 317 hectares for subtidal, intertidal, supratidal and lagoon (and associated) habitats respectively, other than that occurring from natural patterns of variation.	No. Project c. 2km from the SPA.	No.
Leannan River SAC (002176) / 15km To restore the favourable conservation condition of Atlantic Salmon (<i>Salmo salar</i>)	T1. Distribution: extent of anadromy: 100% of river channels down to second order accessible from estuary Adult spawning. Fish: Conservation limit (CL) for each system consistently exceeded Salmon fry Abundance: Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling Out-migrating smolt abundance: No significant decline Number and distribution of redds: No decline in number and distribution of spawning redds	Yes. Leannan River Sufficient distance from the project area. Sediment modelling shows the sediment plume will be confined to a small area and will settle out quickly. While salmon populations in	No significant residual effect.

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
	due to anthropogenic causes Water quality: At least Q4 at all sites sampled by EPA.	the Leannan River are unlikely to be impacted, migrating salmonids to the Mill River may be. Works will be during daylight hours. Migration generally occurs outside daylight hours.	
Horn Head and Rinclevan SAC (000147) / 31km To maintain the favourable conservation condition of Grey Seal	T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use. T2. Breeding Behavior: Conserve the breeding sites in a natural condition. T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition. T4. Resting behavior: Conserve the resting haulout sites in a natural condition. T5. Population Composition: The grey seal population occurring within this site should contain adult, juvenile and pup cohorts annually. T6. Disturbance: Human activities should occur at levels that do not adversely affect the grey seal population at the site.	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.	No.
Gweedore Bay and Islands SAC (001141) / 47km 1351 Harbour Porpoise (<i>Phocoena phocoena</i>)	No specific information in the CO document re Harbour porpoise.	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters –	No.

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
		January 2014' (DAHG, 2014) and Marine Mammal Observer.	
West of Ardara/Maas Road SAC (000197) / 54km To maintain the favourable conservation condition of Harbour Seal (<i>Phoca vitulina</i>)	T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use. T2. Breeding Behavior: Conserve the breeding sites in a natural condition. T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition. T4. Resting behavior: Conserve the resting haulout sites in a natural condition. T5. Disturbance: Human activities should occur at levels that do not adversely affect the harbour seal population at the site.	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.	No.
Rutland Island and Sound SAC (002283) To maintain the favourable conservation condition of Harbour Seal (<i>Phoca vitulina</i>)	T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use. T2. Breeding Behavior: Conserve the breeding sites in a natural condition. T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition. T4. Resting behavior: Conserve the resting haulout sites in a natural condition. T5. Disturbance: Human activities should occur at levels that do not adversely affect the harbour seal population at the site.	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.	No.
Donegal Bay (Murvagh) SAC (000133) 67km To maintain the favourable conservation condition of	T1: Species range within the site should not be restricted by artificial barriers to site use. This target may be considered relevant to proposed activities or operations that will result in the permanent	Yes. Highly mobile species only relevant if individuals or groups are in the area at the	No.

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
Harbour Seal (<i>Phoca vitulina</i>)	<p>exclusion of harbour seal from part of its range within the site, or will permanently prevent access for the species to suitable habitat therein. It does not refer to short-term or temporary restriction of access or range.</p> <p>T2: The breeding sites should be maintained in a natural condition.</p> <p>This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) breeding behaviour by harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used during the annual breeding season.</p> <p>Operations or activities that cause displacement of individuals from a breeding site or alteration of natural breeding behaviour, and that may result in higher mortality or reduced reproductive success, would be regarded as significant and should therefore be avoided.</p> <p>T3: The moult haul-out sites should be maintained in a natural condition.</p> <p>This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) moulting behaviour by harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used during the annual moult.</p> <p>Operations or activities that cause displacement of individuals from a moult haul-out site or alteration of natural moulting behaviour to an extent that may ultimately interfere with key ecological functions would be regarded as significant and should therefore be avoided.</p> <p>T 4: The resting haul-out sites should be maintained in a natural condition.</p>	<p>time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.</p>	

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
	<p>This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) resting behaviour by harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used for resting.</p> <p>Operations or activities that cause displacement of individuals from a resting haul-out site to an extent that may ultimately interfere with key ecological functions would be regarded as significant and should therefore be avoided.</p> <p>T5: Human activities should occur at levels that do not adversely affect the harbour seal population at the site.</p> <p>Proposed activities or operations should not introduce man-made energy (e.g. aerial or underwater noise, light or thermal energy) at levels that could result in a significant negative impact on individuals and/or the population of harbour seal within the site. This refers to both the aquatic and terrestrial/intertidal habitats used by the species in addition to important natural behaviours during the species' annual cycle.</p> <p>This target also relates to proposed activities or operations that may result in the deterioration of key resources (e.g. water quality, feeding, etc) upon which harbour seals depend. In the absence of complete knowledge on the species ecological requirements in this site such considerations should be assessed where appropriate on a case-by-case basis.</p> <p>Proposed activities or operations should not cause death or injury to individuals to an extent that may ultimately affect the harbour seal population at the site.</p>		

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
Slieve Tooley/Tormore Island/Loughros Beg Bay SAC (000190) / 74km To maintain the favourable conservation condition of Grey Seal	1364 Grey Seal (<i>Halichoerus grypus</i>) T1. Access to suitable Habitat: Species range within the site should not be restricted by artificial barriers to site use. T2. Breeding Behavior: Conserve the breeding sites in a natural condition. T3. Moulting Behavior: Conserve the moult haulout sites in a natural condition T4. Resting behavior: Conserve the resting haulout sites in a natural condition. T5. Disturbance: Human activities should occur at levels that do not adversely affect the grey seal population at the site	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.	No.
St. John's Point SAC (000191) / 83km 1349 Common Bottlenose Dolphin (<i>Tursiops truncatus</i>)	No specific information in the CO document re Bottlenose Dolphin.	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014' (DAHG, 2014) and Marine Mammal Observer.	No.
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625) / 92km 1351 Harbour Porpoise (<i>Phocoena phocoena</i>)	No specific information in the CO document re Harbour porpoise.	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS 'Guidance to manage the risk to marine mammals	No.

Conservation Objective	Attribute, Target & Interpretation of target (TNo.) (NPWS, 2015) where available	Mitigation Measures	Residual effect?
		from man-made sound sources in Irish waters – January 2014’ (DAHG, 2014) and Marine Mammal Observer.	
Skerries and Causeway SAC (UK0030383) / 47km To maintain (or restore where appropriate) the Harbour porpoise (<i>Phocoena phocoena</i>) to favourable condition.	Ensure the species is a viable component of the site. Ensure there is no significant disturbance of the species. Ensure the species is a viable component of the site. T1. Mean abundance of adults within the SAC: Sightings rate from land based watches not less than 0.314 harbour porpoise per hour (based at Ramore Head). Presence/absence of young: At the time of designation approximately 30.6% of the total numbers counted were young (all ages i.e. young, juveniles and calves).	Yes. Highly mobile species only relevant if individuals or groups are in the area at the time of works. NPWS ‘Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters – January 2014’ (DAHG, 2014) and Marine Mammal Observer.	No.

Table 10.1 Assessment of the potential for significant residual effects.

10.3 In-combination and Cumulative Impacts

The potential for in-combination and cumulative impacts to arise from the project proposal is regulated and controlled by the environmental policies and objectives of statutory bodies with a role in the licensing and management of activities in Lough Swilly and the surrounding area. Activities of note include coastal development, waste water treatment, agriculture, aquaculture and small scale fishing and recreational activities.

Policy BIO P-1 of the County Donegal Development Plan 2024 – 2030 States the following:

It is a policy of the Council “...*To require all developments to comply with the requirements of the EU Habitats Directive and EU Bird Directive, including ensuring that development proposals:*

a. Do not adversely affect the integrity of any European/Natura 2000 site (i.e. Special Areas of Conservation and Special Protection Areas) including effects on ex-situ but functionally linked habitats, and species (e.g. Pearl Mussel) save where a plan must be carried out for imperative reasons of overriding public interest (IROPI).

b. Provide for the protection of animal and plant species listed in Annex IV of the EU Habitats Directive and the Flora Protection Order.

c. Protect and enhance features of the landscape (such as rivers, riverbanks, field boundaries, ponds and small woods) which are of major importance for wild fauna and flora and the ecological coherence of the Natura 2000 network....”

Any existing/proposed plan or project that could potentially affect Natura 2000 sites, in combination with the proposed development, must adhere to this environmental policy. Any projects or plans within the zone of influence of the project will be required to carry out Stage 1 and/or Stage 2 of the Appropriate Assessment process thereby ensuring protection of Natura 2000 sites.

In 2021 the Maritime Area Planning Act established a new marine planning system consisting of a new licensing and development management regime from the high water mark to the outer limit of the State’s continental shelf, administered by An Comisiún Pleanála, the coastal local authorities and the Maritime Area Regulatory Authority (MARA).

MARA (under the aegis of the Department of Housing, Local Government and Heritage) facilitates a streamlined consenting process for developers, and a route for developers to the planning system, by assessing applications for Maritime Area Consents (MACs).

An Comisiún Pleanála and the coastal local authorities are responsible for granting development permissions. Development is subject to a single comprehensive environmental assessment by the relevant planning authority. MACs are required before any planning applications are made, and may be granted following assessment of the applicant and the proposed project. A MAC is required before applying for development in a maritime area; it gives applicant the right to occupy a part of the maritime area, provided all other necessary approvals are secured.

Licenses for Aquaculture in Lough Swilly have been issued by the Department of Agriculture, Food and the Marine (DAFM) to include shell fish and fin fish aquaculture. The wider ocean off the

northwest coast is used for line fishing. Dredge fishing for native oyster and cockle also occurs in Lough Swilly (Marineatlas.ie, 2025).

Water quality pressures in Lough Swilly and its catchment have been identified as being due to agriculture, forestry, domestic wastewater, domestic waste, urban runoff, urban wastewater, agriculture and hydromorphological changes.

The proposed dredging campaign is unlikely to cause any significant water quality impacts. Activity is of a minor scale, short term and restricted to a small area of the lough. The sediment within the dredge zone is not considered to be a risk to the surrounding environment. Suspended sediments will settle quickly and will be in a localised area only. A MMO will be appointed to the project to ensure there are no effects on marine mammals in the area. Any impacts will be minor and temporary.

With regard to the project proposed, it has been determined that, after mitigation, there will be no significant residual effects on the Natura 2000 sites within the zone of influence of the project. As the proposed development itself will not have any residual effects on the conservation objectives of any Natura 2000 sites; considering the environmental policies outlined above, the temporary nature of the project works, and considering the mitigation measures described in Section 10, there is no potential for the proposed dredging to adversely affect the integrity of any Natura 2000 sites in combination or cumulatively with any other plan or project.

11.0 Conclusion

Donegal County Council (DCC) is applying for permission to carry out maintenance dredging at Bunrana harbour which will involve dredging 12,000m³ over two dredge campaigns annually for a period of 8 years (96,000m³ in total). 1,250m³ of this material will be reused at the golf course adjacent under an Article 27 licence. The project is within Lough Swilly SAC and c. 2km from Lough Swilly SPA. Due to the marine location coastal and marine Natura sites for which marine mammals are designated have been considered within a 100 km radius of the project.

This NIS has been prepared following the Department of the Environment, Heritage and Local Government guidance 'Appropriate Assessment of Plans and Projects in Ireland, guidance for Planning Authorities. The function of this report is to assist the competent authority with undertaking an Appropriate Assessment in accordance with the Habitats Directive.

The assessment considers whether the proposed project, alone or in-combination with other projects or plans, will result in adverse effects on the integrity of Lough Swilly SAC (002287), Leannan River SAC (002176), Horn Head and Rinclevan SAC (000147), Gweedore Bay and Islands SAC (001141), West of Ardara/Maas Road SAC (000197), Rutland Island and Sound SAC (002283), Donegal Bay (Murvagh) SAC (000133), Slieve Tooley/Tormore Island/Loughros Beg Bay SAC (000190), St. John's Point SAC (000191), Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625), Skerries and Causeway SAC (UK0030383) and Lough Swilly SPA (004075)

This NIS has examined and analysed, in light of the best scientific knowledge, with respect to those Natura 2000 sites within the zone of influence of the proposed development, the potential impact

sources and pathways, how these could impact on the sites' qualifying interests or special conservation interests and whether the predicted effects would adversely affect the integrity of the Natura 2000 sites. There are no other Natura 2000 sites at risk of effects from the proposed development.

It has been objectively concluded from the examination, analysis and evaluation, of all relevant information of the proposed project, potential effects from same, and in respect of the qualifying interests of the Natura 2000 sites and the mitigation measures outlined as presented in this report, that the dredging proposals proposed by Donegal County Council will not adversely affect (either directly or indirectly) the integrity of any Natura 2000 site, either alone or in combination with other plans or projects.

12.0 References and sources

The following research documents/ sources were used in the preparation of this report:

Aquafact (2018) Marine Benthic Study, Bunrana Harbour Dredging and Disposal Operations Produced by AQUAFAC International Services Ltd for Malachy Walsh and Partners on behalf of Donegal County Council. February 2018.

Aquafact (2024) Bunrana Pier - Sediment Chemical and Granulometric Analysis for Donegal County Council December 2024

Auchincloss, C., Handley, J., Newton, S., Clarke, B., Donaghy, A., Duggan, O., Davies, T., Mitchell, D. 2025. Ireland: Important Bird and Biodiversity Area identification for seabirds. Project Report (Activity 1). BirdWatch Ireland, Wicklow.

Audus, I., Charles, P., Evans, S. (2010). *Environmental Good Practice On Site (Third Edition)*. CIRIA. ISBN 978- 0-86017-692-6.

Bass, N (2011) Chapter 3. The Waters of Lough Swilly. In: Cooper JAG. ed 2011. *Lough Swilly a Living Landscape*, Four Courts Press. Funded by Interreg IVB NWE, IMCORE project.Pg. 55-70

Berrow, S., Hickey, R., O'Connor, I. And McGrath, D. 2014 Density estimates of harbour porpoises *Phocoena phocoena* at eight coastal sites in Ireland. *Biology and Environment: Proceedings of the Royal Irish Academy* 2014. DOI: 10.3318/ BIOE.2014.03

Chanin P (2003). *Ecology of the European Otter*. Conserving Natura 2000 Rivers Ecology Series No. 10. English Nature, Peterborough.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Cutts, N., Phelps, A. and Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance. Report to Huber INCA*. Institute of Estuarine and Coastal Studies, University of Hull.

Dept. of Arts, Heritage and the Gaeltacht (2014). Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters.

Dept. of Environment Heritage and Local Government (2009) Appropriate Assessment of plans and projects, Guidance for planning authorities.

Donegal County Council (2024) Donegal County Development Plan 2024-2030

Department of Environment, Climate and Communications (2023). Wild Salmon and Sea Trout Tagging Scheme (Amendment) Regulations 2023.

European Commission Environment DG (2001) *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 November 2001.

Hendry K & Cragg-Hine D (2003). *Ecology of the Atlantic Salmon*.

Inland Fisheries Ireland (2010). Biosecurity Protocol for Field Survey Work.

Inland Fisheries Ireland (2011). Status Report on Key Salmon Rivers in the North Western River Basin District (2011).

Inland Fisheries Ireland (2016) Guidelines on protection of fisheries during construction works in and adjacent to waters.

Johnston, E (2011) Chapter 2. Coastal and Seabed Environments: Living Habitats. In: Cooper JAG. ed 2011. *Lough Swilly a Living Landscape*, Four Courts Press. Funded by Interreg IVB NWE, IMCORE project. Pg.40-41.

Kruuk, H., Carss, D.N., Conroy, J.W.H. and Durbin, L. (1993). Otter (*Lutra lutra*) Numbers and Fish Productivity in Rivers in North East Scotland. *Symposium of the Zoological Society*, **65**, 171-191.

Malachy Walsh & Partners (2016) Modelling Assessment Report, Bunrana DAS, Malachy Walsh & Partners Engineering And Environmental Consultants for Donegal County Council

Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

Morris C.D. & Duck C.D (2019). Aerial thermal-imaging survey of seals in Ireland, 2017 to 2018. Irish Wildlife Manuals, No. 111 National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

NIEA Otters and Development.

NPWS (2009) Threat Response Plan: Otter (2009-2011). National Parks & Wildlife Service, Department of the Environment, Heritage & Local Government, Dublin.

NPWS (2011a) Conservation Objectives: Lough Swilly SAC 002287 and Lough Swilly SPA 004075. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2011b) Lough Swilly Special Protection Area (Site Code 4075)VERSION 1, Conservation Objectives Supporting Document, National Parks & Wildlife Service, April 2011.

NPWS (2012) Conservation Objectives: Donegal Bay (Murvagh) SAC 000133. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2013) Conservation Objectives: Rutland Island and Sound SAC 002283.Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2014) Courtmacsherry Bay Special Protection Area (Site Code 4219) Conservation Objectives Supporting Document VERSION 1 National Parks & Wildlife Service, September 2014.

NPWS (2015) Conservation Objectives: Gweedore Bay and Islands SAC 001141. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2015) Conservation Objectives: West of Ardara/Maas Road SAC 000197. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2015) Conservation Objectives: Slieve Tooley/Tormore Island/Loughros Beg Bay SAC 000190. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2015) Conservation Objectives: St. John's Point SAC 000191. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2015) Conservation Objectives: Bunduff Lough and Machair/Trawalua/Mullaghmore SAC 000625. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2019) Conservation Objectives: Leannan River SAC 002176. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2024) Conservation Objectives: Horn Head and Rinclevan SAC 000147. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

(NPWS, 2014) 'Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters'

NRA (2009) Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes.

O'Neill L. (2008) Population dynamics of the Eurasian otter in Ireland. Integrating density and demography into conservation planning. PhD thesis. Trinity College, Dublin.

OPR Practice Note (March 2021). Appropriate Assessment Screening for Development Management.

Reid, N., Hayden, B., Lundy, M.G., Pietravalle, S., McDonald, R.A. & Montgomery, W.I. (2013) National Otter Survey of Ireland 2010/12. Irish Wildlife Manuals No. 76. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

SNH (2007) A Review of Disturbance Distances in Selected Bird Species: Scottish Natural Heritage; M. Ruddock & D.P. Whitfield

Stokes, K., O'Neill, K. & McDonald, R.A. (2004). Invasive species in Ireland. Unpublished report to Environment & Heritage Service and National Parks & Wildlife Service. Quercus, Queens University Belfast, Belfast.

Thorpe, J. & Morgan, R.. (2006). Periodicity in Atlantic salmon *Salmo salar* L. smolt migration. *Journal of Fish Biology*. 12. 541 - 548. 10.1111/j.1095-8649.1978.tb04200.x.

University College Cork (2007). A survey of mudflats and sandflats, Commissioned by: National Parks and Wildlife Services, carried out by: Aquatic Service Unit, December 2007 White, J. et.al. (2016).

Wild Salmon and Sea Trout Tagging Scheme (Amendment) Regulations 2023 (Draft). Incorporating natural variability in biological reference points and population dynamics into management of

Atlantic salmon (*Salmo salar* L.) stocks returning to home waters. ICES Journal of Marine Science; doi:10.1093/icesjms/fsw015.

Online Sources accessed Sept 2025 – December 2025

www.biodiversityireland.ie

<https://store.fishinginireland.info/salmon-fishing-regulations/>

Irish Whale and Dolphin Group: iwdg.ie

<https://iwdg.ie/porpoises-under-pressure-in-irish-waters/>

www.gsi.ie

www.catchments.ie

www.epa.ie

www.NPWS.ie

www.doeni.gov.uk/niea#

<https://gis.epa.ie/EPAMaps/>

<https://www.water.ie/projects/local-projects/buncrana-sewerage-scheme>

[https://invasives.ie/biosecurity/check-clean-dry/.](https://invasives.ie/biosecurity/check-clean-dry/)

Inland Fisheries Ireland biosecurity campaign for boaters and anglers:

<https://www.fisheriesireland.ie/Biosecurity/biosecurity-for-boaters-and-anglers.html>

www.Invasivespeciesireland.com

<https://www.maritimeregulator.ie/maritime-area-consent-mac/>

<http://atlas.marine.ie> Data from the Aquaculture theme accessed through Ireland's Marine Atlas at <http://atlas.marine.ie/>, 16/06/2023.

<https://www.sealrescueireland.org/threats-to-seals/>

www.birdwatchireland.ie

<https://sitelink.nature.scot/map>

<https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/international-designations/european-sites>

<https://www.nature.scot/information-hub/naturescot-data-services>

Martin , B. (2018)To The Journey's End: The Lifecycle of the Atlantic Salmon. Supported by the Boards and Trusts of the rivers of the North East of Scotland, Aberdeenshire- Project Media: Conservation Through Education

<https://natura2000.eea.europa.eu/Natura2000/sdf/#/sdf?site=IE0000197&release=55>

Appendix 1 Initial Screening - Zone of Influence

Site Name	Assessment
<p>Lough Swilly SAC(002287) In site</p> <p>Habitats</p> <p>1130 Estuaries</p> <p>1150 Coastal lagoons*</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <p>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>Species</p> <p>1351 Harbour Porpoise (<i>Phocoena phocoena</i>)</p> <p>1355 Otter (<i>Lutra lutra</i>)</p>	<p>Potential SPR. Screened IN.</p>
<p>North Inishowen Coast SAC (002012) / 9km</p> <p>Habitats</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1220 Perennial vegetation of stony banks</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p>21A0 Machairs (* in Ireland)</p> <p>4030 European dry heaths</p> <p>Species</p> <p>1014 Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>)</p> <p>1355 Otter (<i>Lutra lutra</i>)</p>	<p>No SPR due to distances involved and QI type.</p>
<p>Ballyhoorisky Point to Fanad Head SAC (001975) / 13km</p> <p>Habitats</p> <p>1220 Perennial vegetation of stony banks</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i></p> <p>3140 Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.</p>	<p>No SPR due to QI type and location. Screened out.</p>

Site Name	Assessment
Species 1014 Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>) 1833 Slender Naiad (<i>Najas flexilis</i>)	
Mulroy Bay SAC (002159) / 13km Habitats 1140 Mudflats and sandflats not covered by seawater at low tide 1160 Large shallow inlets and bays 1170 Reefs Species 1355 Otter (<i>Lutra lutra</i>)	No SPR due to QI type and location. Screened out.
Leannan River SAC (002176) / 15km Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> Species 1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) 1106 Salmon (<i>Salmo salar</i>) 1355 Otter (<i>Lutra lutra</i>) 1833 Slender Naiad (<i>Najas flexilis</i>)	Potential SPR with Salmon. Leannan River directly linked to Lough Swilly. Screened IN
Magheradrumman Bog SAC (000168) / 18km Habitats 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 7130 Blanket bogs (* if active bog)	No SPR due to QI type. Screened out.
Ballyarr Wood SAC (000116) / 18km Habitats 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	No SPR due to QI type. Screened out.
Kindrum Lough SAC (001151) / 19km Habitats 3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i>	No SPR due to QI type. Screened out.

Site Name	Assessment
Species 1833 Slender Naiad (<i>Najas flexilis</i>)	
River Finn SAC(002301) / 20km Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 7130 Blanket bogs (* if active bog) 7140 Transition mires and quaking bogs Species 1106 Salmon (<i>Salmo salar</i>) 1355 Otter (<i>Lutra lutra</i>)	No SPR due to QI type. No direct hydrological link link to Lough Swilly. Screened out.
Lough Nagreany Dunes SAC (000164) / 21km Habitats 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2140 Decalcified fixed dunes with <i>Empetrum nigrum</i> * 2150 Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)* 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> Species 1833 Slender Naiad (<i>Najas flexilis</i>)	No SPR due to QI type. Screened out.
Cloghernagore Bog and Glenveagh National Park SAC (002047) / 22km Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)	No SPR due to QI type. No direct hydrological link to Lough Swilly. Screened out.

Site Name	Assessment
<p>3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</p> <p>4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <p>4030 European dry heaths</p> <p>4060 Alpine and Boreal heaths</p> <p>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <p>7130 Blanket bogs (* if active bog)</p> <p>7150 Depressions on peat substrates of the <i>Rhynchosporion</i></p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>Species</p> <p>1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)</p> <p>1106 Salmon (<i>Salmo salar</i>)</p> <p>1355 Otter (<i>Lutra lutra</i>)</p> <p>1421 Killarney Fern (<i>Trichomanes speciosum</i>)</p>	
<p>Sheephaven SAC (001190) / 22km</p> <p>Habitats</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1210 Annual vegetation of drift lines</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>1310 Salicornia and other annuals colonising mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>2110 Embryonic shifting dunes</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p>2190 Humid dune slacks</p> <p>21A0 Machairs (* in Ireland)</p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>Species</p> <p>1065 Marsh Fritillary (<i>Euphydryas aurinia</i>)</p> <p>1395 Petalwort (<i>Petalophyllum ralfsii</i>)</p>	<p>No SPR due to QI type. No direct hydrological link to Lough Swilly. Screened out.</p>

Site Name	Assessment
<p>Tranarossan and Melmore Lough SAC (000194) / 23km</p> <p>Habitats</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1210 Annual vegetation of drift lines</p> <p>1220 Perennial vegetation of stony banks</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>2110 Embryonic shifting dunes</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p>2140 Decalcified fixed dunes with <i>Empetrum nigrum</i>*</p> <p>2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</p> <p>2190 Humid dune slacks</p> <p>21A0 Machairs (* in Ireland)</p> <p>3140 Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.</p> <p>4030 European dry heaths</p> <p>4060 Alpine and Boreal heaths</p> <p>Species</p> <p>1395 Petalwort (<i>Petalophyllum ralfsii</i>)</p>	<p>No SPR due to QI type. No direct hydrological link to Lough Swilly. Screened out.</p>
<p>Sessiagh Lough SAC (000185) / 30km</p> <p>Habitats</p> <p>3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i></p> <p>Species</p> <p>1833 Slender Naiad (<i>Najas flexilis</i>)</p>	<p>No SPR due to QI type. No direct hydrological link to Lough Swilly. Screened out.</p>
<p>Muckish Mountain SAC (001179) 30km</p> <p>Habitats</p> <p>4060 Alpine and Boreal heaths</p> <p>8220 Siliceous rocky slopes with chasmophytic vegetation</p>	<p>No SPR due to QI type. Screened out.</p>
<p>Horn Head and Rinclevan SAC (000147) / 31km</p> <p>Habitats</p> <p>2110 Embryonic shifting dunes</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p>	<p>Potential SPR with Grey Seal. Screened IN.</p>

Site Name	Assessment
2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> Species 1013 Geyer's Whorl Snail (<i>Vertigo geyeri</i>) 1364 Grey Seal (<i>Halichoerus grypus</i>) 1395 Petalwort (<i>Petalophyllum ralfsii</i>) 1833 Slender Naiad (<i>Najas flexilis</i>)	
Inishtrahull SAC (000154) / 36km Habitats 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	No SPR due to distance and QI type. Screened out.
Ballyness Bay SAC (001090) / 38km Habitats 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks Species 1013 Geyer's Whorl Snail (<i>Vertigo geyeri</i>)	No SPR due to distance and QI type. Screened out.
Meentygrannagh Bog SAC (000173) / 39km Habitats 7130 Blanket bogs (* if active bog) 7140 Transition mires and quaking bogs 7230 Alkaline fens Species	No SPR due to distance and QI type. Screened out.

Site Name	Assessment
6216 Slender Green Feather-moss (<i>Hamatocaulis vernicosus</i>)	
Hempton's Turbot Bank SAC (002999) / 43km Habitats 1110 Sandbanks which are slightly covered by sea water all the time	No SPR due to distance and QI type. Screened out.
Fawnboy Bog/Lough Nacung SAC (000140) / 43km Habitats 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 7130 Blanket bogs (* if active bog) 7150 Depressions on peat substrates of the <i>Rhynchosporion</i> Species 1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)	No SPR due to distance and QI type. Screened out.
Tory Island Coast SAC (002259) / 47km Habitats 1150 Coastal lagoons* 1170 Reefs 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 8330 Submerged or partially submerged sea caves	No SPR due to distance and QI type. Screened out.
Gweedore Bay and Islands SAC (001141) / 47km Habitats 1150 Coastal lagoons* 1170 Reefs 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2140 Decalcified fixed dunes with <i>Empetrum nigrum</i> *	Potential SPR with Harbour Porpoise. Screened IN

Site Name	Assessment
2150 Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)* 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> 4030 European dry heaths 4060 Alpine and Boreal heaths 5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands Species 1065 Marsh Fritillary (<i>Euphydryas aurinia</i>) 1351 Harbour Porpoise (<i>Phocoena phocoena</i>) 1355 Otter (<i>Lutra lutra</i>) 1395 Petalwort (<i>Petalophyllum ralfsii</i>) 1833 Slender Naiad (<i>Najas flexilis</i>)	
Croaghonagh Bog SAC (000129) 50km Habitats 7130 Blanket bogs (* if active bog)	No SPR. Screened out.
Coolvoy Bog SAC(001107) / 52km Habitats 7130 Blanket bogs (* if active bog)	No SPR. Screened out.
Gannivegil Bog SAC (000142) / 53km Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 7130 Blanket bogs (* if active bog)	No SPR. Screened out.
West of Ardara/Maas Road SAC (000197) / 54km Habitats 1130 Estuaries	Potential SPR with Harbour Seal. Screened IN.

Site Name	Assessment
<p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1160 Large shallow inlets and bays</p> <p>1210 Annual vegetation of drift lines</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>2110 Embryonic shifting dunes</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p>2140 Decalcified fixed dunes with <i>Empetrum nigrum</i>*</p> <p>2150 Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)*</p> <p>2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</p> <p>2190 Humid dune slacks</p> <p>21A0 Machairs (* in Ireland)</p> <p>3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)</p> <p>3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i></p> <p>4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <p>4030 European dry heaths</p> <p>4060 Alpine and Boreal heaths</p> <p>5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands</p> <p>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites)</p> <p>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <p>6510 Lowland hay meadows (<i>Alopecurus pratensis</i>, <i>Sanguisorba officinalis</i>)</p> <p>7130 Blanket bogs (* if active bog)</p> <p>7150 Depressions on peat substrates of the <i>Rhynchosporion</i></p> <p>7230 Alkaline fens</p> <p>Species</p> <p>1013 Geyer's Whorl Snail (<i>Vertigo geyeri</i>)</p> <p>1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)</p>	

Site Name	Assessment
1065 Marsh Fritillary (<i>Euphydryas aurinia</i>) 1106 Salmon (<i>Salmo salar</i>) 1355 Otter (<i>Lutra lutra</i>) 1365 Harbour Seal (<i>Phoca vitulina</i>) 1395 Petalwort (<i>Petalophyllum ralfsii</i>) 1833 Slender Naiad (<i>Najas flexilis</i>)	
Meenaguse Scragh SAC (001880) / 57km Habitats 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i>	No SPR. Screened out.
Lough Eske and Ardnamona Wood SAC (000163) / 57km Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)* 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles Species 1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) 1106 Salmon (<i>Salmo salar</i>) 1421 Killarney Fern (<i>Trichomanes speciosum</i>)	No SPR Screened out.
Lough Nillan Bog (Carrickatlieve) SAC (000165) / 58km Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 7130 Blanket bogs (* if active bog)	No SPR Screened out.
Lough Nageage SAC (002135) / 58km Species 1092 White-clawed Crayfish (<i>Austropotamobius pallipes</i>)	No SPR Screened out.
Meenaguse/Ardbane Bog SAC (000172) / 61km Habitats 7130 Blanket bogs (* if active bog)	No SPR Screened out.

Site Name	Assessment
Dunragh Loughs/Pettigo Plateau SAC (001125) / 61km Habitats 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 7130 Blanket bogs (* if active bog)	No SPR Screened out.
Rutland Island and Sound SAC (002283) / 62km Habitats 1150 Coastal lagoons* 1160 Large shallow inlets and bays 1170 Reefs 1210 Annual vegetation of drift lines 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks Species 1365 Harbour Seal (<i>Phoca vitulina</i>)	Potential SPR with Harbour Seal. Screened IN.
Termon Strand SAC (001195) / 65km Habitats 1150 Coastal lagoons*	No SPR. Screened out.
Donegal Bay (Murvagh) SAC (000133) 67km Habitats 1140 Mudflats and sandflats not covered by seawater at low tide 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks Species 1365 Harbour Seal (<i>Phoca vitulina</i>)	Potential SPR with Harbour Seal. Screened IN.
Aran Island (Donegal) Cliffs SAC (000111) / 68km Habitats 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths	No SPR. Screened out.

Site Name	Assessment
4060 Alpine and Boreal heaths 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 8330 Submerged or partially submerged sea caves	
Tamur Bog SAC (001992) / 69km Habitats 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 7130 Blanket bogs (* if active bog) 7150 Depressions on peat substrates of the <i>Rhynchosporion</i>	No SPR. Screened out.
Slieve Tooley/Tormore Island/Loughros Beg Bay SAC (000190) / 74km Habitats 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2140 Decalcified fixed dunes with <i>Empetrum nigrum</i> * 2150 Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)* 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks 4060 Alpine and Boreal heaths 7130 Blanket bogs (* if active bog) Species 1014 Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>) 1355 Otter (<i>Lutra lutra</i>) 1364 Grey Seal (<i>Halichoerus grypus</i>)	Potential SPR with Grey Seal. Screened IN.
Lough Golagh and Breesy Hill SAC (002164) / 75km Habitats 7130 Blanket bogs (* if active bog)	No SPR. Screened out.

Site Name	Assessment
Ballintra SAC (000115) / 75km Habitats 4030 European dry heaths 8240 Limestone pavements*	No SPR. Screened out.
Durnesh Lough SAC (000138) / Habitats 1150 Coastal lagoons* 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	No SPR. Screened out.
St. John's Point SAC (000191) / 83km Habitats 1160 Large shallow inlets and bays 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) 7230 Alkaline fens 8240 Limestone pavements* 8330 Submerged or partially submerged sea caves Species 1065 Marsh Fritillary (<i>Euphydryas aurinia</i>) 1349 Common Bottlenose Dolphin (<i>Tursiops truncatus</i>)	Potential SPR with Bottlenose Dolphin. Screened IN.
Dunmuckrum Turloughs SAC (002303) / 85km Habitats 3180 Turloughs*	No SPR. Screened out.
Lough Melvin SAC (000428) / 88km Habitats 3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) Species	No SPR. No hydrological link with Lough Swilly. Screened out.

Site Name	Assessment
1106 Salmon (<i>Salmo salar</i>) 1355 Otter (<i>Lutra lutra</i>)	
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625) / 92km Habitats 1140 Mudflats and sandflats not covered by seawater at low tide 1160 Large shallow inlets and bays 1170 Reefs 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 7230 Alkaline fens Species 1065 Marsh Fritillary (<i>Euphydryas aurinia</i>) 1351 Harbour Porpoise (<i>Phocoena phocoena</i>) 1395 Petalwort (<i>Petalophyllum ralfsii</i>)	Potential SPR with Harbour Porpoise. Screened IN
Slieve League SAC (000189) / 93km Habitats 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths 4060 Alpine and Boreal heaths 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) 8210 Calcareous rocky slopes with chasmophytic vegetation	No SPR. Screened out.

Site Name	Assessment
8220 Siliceous rocky slopes with chasmophytic vegetation	
Arroo Mountain SAC (001403) / 93km Habitats 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths 4060 Alpine and Boreal heaths 7130 Blanket bogs (* if active bog) 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)* 8120 Calcareous and calcshist screes of the montane to alpine levels (<i>Thlaspietea rotundifolii</i>) 8210 Calcareous rocky slopes with chasmophytic vegetation	No SPR. Screened out.
Corratirrim SAC (000979) 98km Habitats 8240 Limestone pavements*	No SPR. Screened out.
Ben Bulben, Gleniff and Glenade Complex SAC (000623) / 98km Habitats 3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths 4060 Alpine and Boreal heaths 5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 6230 Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels 7130 Blanket bogs (* if active bog) 7140 Transition mires and quaking bogs 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)* 7230 Alkaline fens	No SPR. No hydrological link with Lough Swilly. Screened out.

Site Name	Assessment
8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) 8120 Calcareous and calcshist screes of the montane to alpine levels (<i>Thlaspietea rotundifolii</i>) 8210 Calcareous rocky slopes with chasmophytic vegetation Species 1013 Geyer's Whorl Snail (<i>Vertigo geyeri</i>) 1355 Otter (<i>Lutra lutra</i>)	
Rathlin O'Birne Island SAC (000181) / 99km Habitats 1170 Reefs	No SPR. Screened out.
Glenade Lough SAC (001919) / 99km Habitats 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation Species 1092 White-clawed Crayfish (<i>Austropotamobius pallipes</i>) 1833 Slender Naiad (<i>Najas flexilis</i>)	No SPR. Screened out.
Lough Gill SAC (001976) / 99km Habitats 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)* Species 1092 White-clawed Crayfish (<i>Austropotamobius pallipes</i>) 1095 Sea Lamprey (<i>Petromyzon marinus</i>) 1096 Brook Lamprey (<i>Lampetra planeri</i>) 1099 River Lamprey (<i>Lampetra fluviatilis</i>) 1106 Salmon (<i>Salmo salar</i>) 1355 Otter (<i>Lutra lutra</i>)	No SPR. No hydrological link with Lough Swilly. Screened out.

Site Name	Assessment
Northern Ireland	
Magilligan SAC (UK0016613) / 31km Dunes with <i>Salix repens</i> ssp. <i>Argentea</i> (<i>Salicion arenariae</i>) Embryonic shifting dunes Fixed dunes with herbaceous vegetation (grey dunes) Humid dune slacks Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) Marsh Fritillary <i>Euphydryas aurinia</i> Petalwort <i>Petalophyllum ralfsii</i>	No SPR due to QI type and location. Screened out
Bann Estuary (UK0030084) / 43km Fixed dunes with herbaceous vegetation Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> Embryonic shifting dunes	No SPR due to QI type and location. Screened out
Skerries and Causeway SAC (UK0030383) / 47km Reefs Sandbanks which are slightly covered by sea water all the time, and Submerged and partially submerged sea caves Harbour porpoise (<i>Phocoena phocoena</i>) Common Seal <i>Phoca vitulina</i> D Grey Seal <i>Halichoerus grypus</i> D Bottlenose Dolphin <i>Tursiops truncatus</i> D	Potential SPR with harbour porpoise, and other marine mammals of note. Screened IN
Rathlin Island SAC UK0030055 / 76km Reefs Submerged or partially submerged sea caves Vegetated sea cliffs of the Atlantic and Baltic coasts Annual vegetation of drift lines Sandbanks which are slightly covered by sea water all the time	No SPR. Screened out.
Red Bay SAC (UK0030365) / 90km	No SPR.

Site Name	Assessment
Sandbanks which are slightly covered by sea water all the time Reefs D	Screened out.
North Antrim Coast SAC (UK0030224) / 60km Annual vegetation of drift lines Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Fixed dunes with herbaceous vegetation (grey dunes) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) Species-rich <i>Nardus</i> grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) Vegetated sea cliffs of the Atlantic and Baltic coasts <i>Vertigo angustior</i>	No SPR. Screened out.
Garron Plateau SAC (UK0016606) /83km Active blanket bog Alkaline fen (upland) Marsh saxifrage <i>Saxifraga hirculus</i> L Oligotrophic to mesotrophic standing water with vegetation belonging to <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> Northern Atlantic wet heath Natural dystrophic lakes and pools Transition mires and quaking bogs European dry heath	No SPR. Screened out.
Carn – Glenshane Pass SAC (UK0030110) / 45km Blanket Bog Northern Atlantic wet heaths with <i>Erica tetralix</i> D	No SPR. Screened out.
Garry Bog SAC (UK0016610) /c.60km Active raised bog B Degraded raised bog still capable of regeneration D Depressions on peat substrates of the <i>Rhynchosporion</i> D	No SPR. Screened out.
Teal Lough SAC (UK0016608) / c.60km	No SPR.

Site Name	Assessment
Active blanket bog Northern Atlantic wet heaths with <i>Erica tetralix</i> D Natural dystrophic lakes and ponds D Depressions on peat substrates of the <i>Rhynchosporion</i> D European dry heaths D	Screened out.
Main Valley Bogs SAC (UK0030199) / c.60km Active raised bog Degraded raised bog still capable of regeneration D Depressions on peat substrates D	No SPR. Screened out.
Black Bog SAC (UK0016609) / c60km Active raised bog Degraded raised bog still capable of regeneration D Depressions on peat substrates of the <i>Rhynchosporion</i> D	No SPR. Screened out.
Deroran Bog SAC (UK0030324) Active raised bog Degraded raised bog still capable of regeneration D	No SPR. Screened out.
Lough Melvin SAC (UK0030047) / 88km Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflora</i> and/or of the <i>Isoet-Nanojuncetea</i> Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caeruleae</i>) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles Atlantic Salmon <i>Salmo salar</i> Residual alluvial forests (<i>Alnion glutinoso-incanae</i>) D North Atlantic wet heaths with <i>Erica tetralix</i> D Otter <i>Lutra lutra</i> D	No SPR. No hydrological link with Lough Swilly. Screened out.
West Fermanagh Scarplands SAC (UK0030300) /c82km Limestone Pavements Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-</i>	No SPR. Screened out.

Site Name	Assessment
<p><i>Brometalia</i>) Tilio-Acerion forests of slopes, screes and ravines Alkaline Fens Natural eutrophic lakes with Magnopotamion or Hydrocharition – type vegetation Blanket bog (active only) Northern Atlantic wet heath with <i>Erica tetralix</i> Petrifying springs with tufa formation (<i>Cratoneuron</i>) Alpine and Subalpine calcareous grassland D Calcareous and calcshist screes D</p>	
<p>Cranny Bogs SAC (UK0030321) / 70km Active raised bog Degraded raised bog still capable of regeneration D</p>	<p>No SPR. Screened out.</p>
<p>Tonnagh Beg Bog SAC (UK0030325) / c70km Active raised bog Degraded raised bog still capable of regeneration D</p>	<p>No SPR. Screened out.</p>
<p>Fairy Water Bogs SAC (UK0016611) / c70km Active raised bog Degraded raised bog still capable of regeneration Depressions on peat substrates Transition mires and fens</p>	<p>No SPR. Screened out.</p>
<p>Moneygal Bog SAC (UK0030211) / 44km Active raised bog Degraded raised bog still capable of regeneration D Depressions on peat substrates of the <i>Rhynchosporium</i> D</p>	<p>No SPR. Screened out.</p>
<p>Binevenagh SAC (UK0030089) / 35km Calcareous rocky slopes with chasmophytic vegetation Species-rich <i>Nardus</i> grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) Calcareous and calcshist screes of the montane to alpine levels (<i>Thlaspietea rotundifolii</i>)</p>	<p>No SPR. Screened out.</p>

Site Name	Assessment
Peatlands Park SAC (UK0030236) /c90km Lowland raised bog Fen Woodland No specific details available for SAC	No SPR. Screened out.
Tully Bog SAC (UK0030326) Active raised bog Degraded raised bog still capable of regeneration D	No SPR. Screened out.
Scotland	
Rinns of Islay SAC (UK0030247) / 88km <i>Euphydryas (Eurodryas, Hypodryas) aurinia</i> Marsh fritillary butterfly	No SPR due to QI type and location. Screened out
Eilean na Muice Duibhe (Duich Moss) SAC UK 900305499km Blanket bog* Depressions on peat substrates	No SPR due to QI type and location. Screened out

Table 1. Appropriate assessment screening SAC initial assessment. Habitat and species highlighted in yellow are screened in.

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
004075	Lough Swilly SPA () / 1.9km	1.9km	Birds A005 Great Crested Grebe (<i>Podiceps cristatus</i>) A028 Grey Heron (<i>Ardea cinerea</i>) A038 Whooper Swan (<i>Cygnus cygnus</i>) A043 Greylag Goose (<i>Anser anser</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A050 Wigeon (<i>Anas penelope</i>) A052 Teal (<i>Anas crecca</i>) A053 Mallard (<i>Anas platyrhynchos</i>) A056 Shoveler (<i>Anas clypeata</i>) A062 Scaup (<i>Aythya marila</i>) A067 Goldeneye (<i>Bucephala clangula</i>) A069 Red-breasted Merganser (<i>Mergus serrator</i>) A125 Coot (<i>Fulica atra</i>) A130 Oystercatcher (<i>Haematopus ostralegus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A164 Greenshank (<i>Tringa nebularia</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A182 Common Gull (<i>Larus canus</i>) A191 Sandwich Tern (<i>Sterna sandvicensis</i>) A193 Common Tern (<i>Sterna hirundo</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) Habitats Wetlands	Potential SPR due to proximity to dredging. Screened IN
004194	Horn Head to	9km	Birds	No SPR considered to exist

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
	Fanad Head SPA		A009 Fulmar (<i>Fulmarus glacialis</i>) A017 Cormorant (<i>Phalacrocorax carbo</i>) A018 Shag (<i>Phalacrocorax aristotelis</i>) A045 Barnacle Goose (<i>Branta leucopsis</i>) A103 Peregrine (<i>Falco peregrinus</i>) A188 Kittiwake (<i>Rissa tridactyla</i>) A199 Guillemot (<i>Uria aalge</i>) A200 Razorbill (<i>Alca torda</i>) A346 Chough (<i>Pyrrhocorax pyrrhocorax</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	due to type and scale of works and distance from project location. Screened out.
004087	Lough Foyle SPA	14km	Birds A001 Red-throated Diver (<i>Gavia stellata</i>) A005 Great Crested Grebe (<i>Podiceps cristatus</i>) A037 Bewick's Swan (<i>Cygnus columbianus bewickii</i>) A038 Whooper Swan (<i>Cygnus cygnus</i>) A043 Greylag Goose (<i>Anser anser</i>) A046 Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A050 Wigeon (<i>Anas penelope</i>) A052 Teal (<i>Anas crecca</i>) A053 Mallard (<i>Anas platyrhynchos</i>) A063 Eider (<i>Somateria mollissima</i>) A069 Red-breasted Merganser (<i>Mergus serrator</i>) A130 Oystercatcher (<i>Haematopus ostralegus</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A142 Lapwing (<i>Vanellus vanellus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
			A157 Bar-tailed Godwit (<i>Limosa lapponica</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A182 Common Gull (<i>Larus canus</i>) A184 Herring Gull (<i>Larus argentatus</i>) Habitats Wetlands	
004148	Fanad Head SPA	16km	Birds A122 Corncrake (<i>Crex crex</i>)	No SPR due to species type. Screened out.
004060	Lough Fern SPA	17km	Birds A059 Pochard (<i>Aythya ferina</i>) Habitats Wetlands	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004082	Greers Isle SPA	18km	Birds A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A182 Common Gull (<i>Larus canus</i>) A191 Sandwich Tern (<i>Sterna sandvicensis</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004034	Trawbreaga Bay SPA	19km	Birds A045 Barnacle Goose (<i>Branta leucopsis</i>) A046 Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) A346 Chough (<i>Pyrrhocorax pyrrhocorax</i>) Habitats Wetlands	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
004039	Derryveagh and Glendowan Mountains SPA	23km	Birds A001 Red-throated Diver (<i>Gavia stellata</i>) A098 Merlin (<i>Falco columbarius</i>) A103 Peregrine (<i>Falco peregrinus</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A466 Dunlin (<i>Calidris alpina schinzii</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004146	Malin Head SPA	25km	Birds A122 Corncrake (<i>Crex crex</i>)	No SPR due to species type. Screened out.
004100	Inishtrahull SPA	36km	Birds A018 Shag (<i>Phalacrocorax aristotelis</i>) A045 Barnacle Goose (<i>Branta leucopsis</i>) A182 Common Gull (<i>Larus canus</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004149	Falcarragh to Meenlaragh SPA	40km	Birds A122 Corncrake (<i>Crex crex</i>)	No SPR due to species type. Screened out.
004083	Inishbofin, Inishdooley and Inishbeg SPA	45km	Birds A045 Barnacle Goose (<i>Branta leucopsis</i>) A122 Corncrake (<i>Crex crex</i>) A182 Common Gull (<i>Larus canus</i>) A183 Lesser Black-backed Gull (<i>Larus fuscus</i>) A194 Arctic Tern (<i>Sterna paradisaea</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004073	Tory Island SPA	48km	Birds A009 Fulmar (<i>Fulmarus glacialis</i>) A122 Corncrake (<i>Crex crex</i>) A200 Razorbill (<i>Alca torda</i>)	No SPR considered to exist due to species type, type and scale of works and distance from project location.

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
			A204 Puffin (<i>Fratercula arctica</i>)	Screened out.
004150	West Donegal Coast SPA	53km	Birds A009 Fulmar (<i>Fulmarus glacialis</i>) A017 Cormorant (<i>Phalacrocorax carbo</i>) A018 Shag (<i>Phalacrocorax aristotelis</i>) A103 Peregrine (<i>Falco peregrinus</i>) A184 Herring Gull (<i>Larus argentatus</i>) A188 Kittiwake (<i>Rissa tridactyla</i>) A200 Razorbill (<i>Alca torda</i>) A346 Chough (<i>Pyrhocorax pyrrhocorax</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004230	West Donegal Islands SPA	54km	Birds A018 Shag (<i>Phalacrocorax aristotelis</i>) A045 Barnacle Goose (<i>Branta leucopsis</i>) A122 Corncrake (<i>Crex crex</i>) A182 Common Gull (<i>Larus canus</i>) A184 Herring Gull (<i>Larus argentatus</i>)	No SPR considered to exist due to species type, type and scale of works and distance from project location. Screened out.
004110	Lough Nillan Bog SPA	59km	Birds A098 Merlin (<i>Falco columbarius</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) A466 Dunlin (<i>Calidris alpina schinzii</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004057	Lough Derg (Donegal) SPA	60km	Birds A183 Lesser Black-backed Gull (<i>Larus fuscus</i>) A184 Herring Gull (<i>Larus argentatus</i>)	No SPR considered to exist due to type and scale of works and distance from project

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
				location. Screened out.
004099	Pettigo Plateau Nature Reserve SPA	63km	Birds A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004151	Donegal Bay SPA	67km	Birds A003 Great Northern Diver (<i>Gavia immer</i>) A046 Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) A065 Common Scoter (<i>Melanitta nigra</i>) A144 Sanderling (<i>Calidris alba</i>) Habitats Wetlands	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004132	Illancrone and Inishkeeragh SPA	68km	Birds A045 Barnacle Goose (<i>Branta leucopsis</i>) A193 Common Tern (<i>Sterna hirundo</i>) A194 Arctic Tern (<i>Sterna paradisaea</i>) A195 Little Tern (<i>Sterna albifrons</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004116	Inishkeel SPA	70km	Birds A045 Barnacle Goose (<i>Branta leucopsis</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004090	Sheskinmore Lough SPA	72km	Birds A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	No SPR considered to exist due to type and scale of works and distance from project

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
				location. Screened out.
004121	Roaninish SPA	74km	Birds A045 Barnacle Goose (<i>Branta leucopsis</i>) A184 Herring Gull (<i>Larus argentatus</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004145	Durnesh Lough SPA	76km	Birds A038 Whooper Swan (<i>Cygnus cygnus</i>) A395 Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004167	Slieve Beagh SPA	87km	Birds A082 Hen Harrier (<i>Circus cyaneus</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004115	Inishduff SPA	91km	Birds A018 Shag (<i>Phalacrocorax aristotelis</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
004187	Sligo/Leitrim Uplands SPA	93km	Birds A103 Peregrine (<i>Falco peregrinus</i>) A346 Chough (<i>Pyrrhocorax pyrrhocorax</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
	NORTHERN			

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
	IRELAND			
UK9020031	Lough Foyle SPA UK	15km	Foyle Feature Bewick's Swan wintering population b Whooper Swan wintering population a Golden Plover wintering population b Bar-tailed Godwit wintering population a Light-bellied Brent Goose wintering population a Great Crested Grebe wintering population Cormorant wintering population Greylag Goose wintering population Shelduck wintering population Wigeon wintering population Teal wintering population Mallard wintering population Eider wintering population Red-breasted Merganser wintering population Oystercatcher wintering population Lapwing wintering population Knot wintering population Dunlin wintering Curlew wintering population Redshank wintering population Waterfowl Assemblage wintering population a (Component species: Bewick's Swan, Whooper Swan, Golden Plover, Bar-tailed Godwit, Light-bellied Brent Goose, Great Crested Grebe, Cormorant, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Eider, Red-breasted Merganser, Oystercatcher, Lapwing, Knot, Dunlin, Curlew, Redshank	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
UK0030055	Rathlin Island SPA	76km	Peregrine Falcon breeding population a Guillemot breeding population Razorbill breeding population Kittiwake breeding population a Fulmar breeding population d Common Gull breeding population d Lesser Black-backed Gull breeding population d Herring Gull breeding population d Puffin breeding population d Seabird Assemblage breeding population a (Component species: Guillemot, Razorbill, Kittiwake, Fulmar, Common Gull, Lesser Black-backed Gull, Herring Gull, , Puffin) Habitat extent (not a feature but treated as such)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
UK9020301	Antrim Hills SPA	91km	Hen Harrier breeding population Merlin breeding population a Habitat extent Habitat quality	No SPR considered to exist due to species type, type and scale of works and distance from project location. Screened out
UK9020091	Lough Neagh and Lough Beg SPA	75km	Common Tern breeding population a Great Crested Grebe breeding population a Great Crested Grebe passage population b Whooper Swan wintering population a Bewick's Swan wintering population a Golden Plover wintering population b Great Crested Grebe wintering population a Pochard wintering population a Tufted Duck wintering population a Scaup wintering population a	

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
			Goldeneye wintering population a Little Grebe wintering population Cormorant wintering population Greylag Goose wintering population Shelduck wintering population Wigeon wintering population Gadwall wintering population Teal wintering population Mallard wintering	
UK9020051	Pettigoe Plateau SPA /	73km	Golden Plover breeding population a	No SPR. Screened out
UK9020302	Slieve Beagh-Mullaghfad-Lisnaskea SPA	88km	Hen Harrier breeding population	No SPR. Screened out
	SCOTLAND			
UK9003057	Rinns of Islay	88km	Chough (<i>Pyrrhocorax pyrrhocorax</i>) •Common scoter (<i>Melanitta nigra</i>) •Corncrake (<i>Crex crex</i>) •Greenland white-fronted goose (<i>Anser albifrons flavirostris</i>) •Hen harrier (<i>Circus cyaneus</i>) •Whooper swan (<i>Cygnus cygnus</i>)	No SPR considered to exist due to species type, type and scale of works and distance from project location. Screened out.
UK 9003053	Laggan Islay	97km	Barnacle goose (<i>Branta leucopsis</i>) • Greenland white-fronted goose (<i>Anser albifrons flavirostris</i>)	No SPR considered to exist due to type and scale of works and distance from project

Site Code	Site Name	Distance To (Km)	Qualifying Interests (* denotes a priority habitat)	Assessment
				location. Screened out
UK 9003058	The Oa	88km	Chough (<i>Pyrrhocorax pyrrhocorax</i>)	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.
UK9003054	Eilean na Muice Duibhe (Duich Moss) SPA	99km	Greenland white-fronted goose (<i>Anser albifrons flavirostris</i>), non-breeding	No SPR considered to exist due to type and scale of works and distance from project location. Screened out.

Table 2. Appropriate assessment screening SPA initial assessment. Habitat and species highlighted in yellow are screened in.

Note: Northern Ireland

The global status is an expert judgement of the overall value of the site for the conservation of the relevant Annex I habitat. Sites have been graded A, B or C - in the UK these gradings have been interpreted as follows:

A - Sites holding outstanding examples of the habitat in a European context.

B - Sites holding excellent stands of the habitat, significantly above the threshold for SSSI/ASSI notification but of somewhat lower value than grade A sites.

C - Examples of the habitat which are of at least national interest (i.e. usually above the threshold for SSSI/ASSI notification on terrestrial sites) but not significantly above this. These habitats are not the primary reason for SACs being selected.

D - Habitat present but not of sufficient extent or quality to merit listing as SAC feature.

There is therefore a distinction between the principal features for which sites have been selected (those graded A or B) and those which are only of secondary interest (those graded C). This is a useful distinction but it is important to note that all three grades are qualifying SAC interest features.

Project location in relation to Natura 2000 sites within a 100km radius

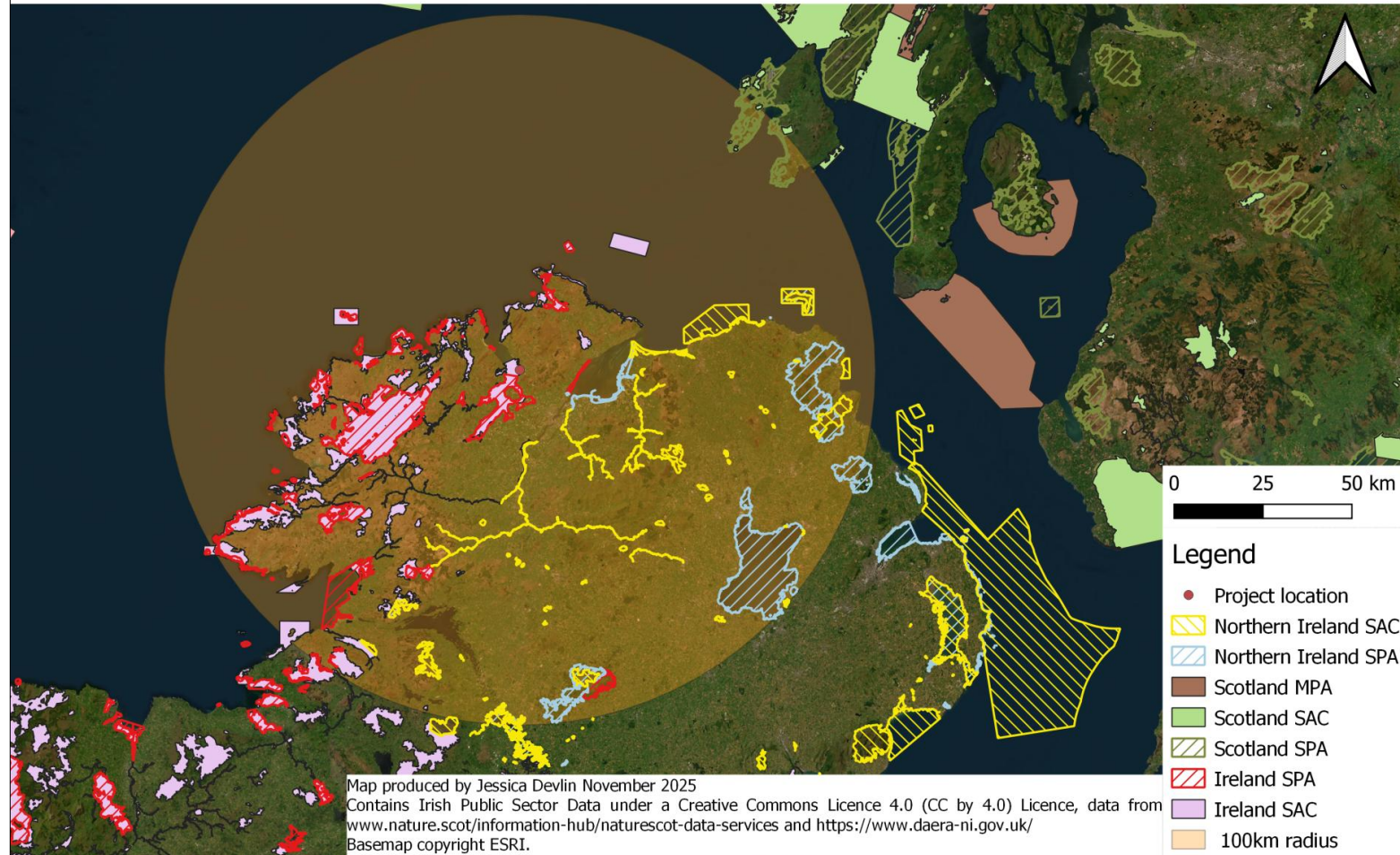


Figure 1 Project location in relation to Natura 2000 sites within a 100km radius

Appendix 2 Natura 2000 Site descriptions, pressures and threats

Negative Impacts

Rank: H = high, M = medium, L = low

Occurrence: i = inside, o = outside, b = both

Site name and number	Description	Quality and importance	Pressures and threats Code and description
Lough Swilly SAC (002287) and Lough Swilly SPA (004075)	Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Bunrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels - these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide.	Lough Swilly is a fine example of a large, natural sea inlet which is estuarine in character. The site supports an excellent diversity of wintering waterfowl for which it is the most important site in the north-west. It is of international importance because total numbers easily exceed 20,000 birds but it also has internationally important populations of <i>Cygnus cygnus</i> , <i>Anser anser</i> and <i>Anser albifrons flavirostris</i> . The <i>Anser anser</i> population represents over 27% of the All-Ireland total, whilst the flock of <i>Anser albifrons flavirostris</i> is the largest in the country outside of the Wexford Slob. In addition, there are at least 18 species which occur in numbers of national importance. Of particular note are the populations of <i>Tadorna tadorna</i> (5.3% of the All - Ireland total), <i>Calidris alpina</i> (6.1% of total) and <i>Tringa totanus</i> (4.8% of total). The site also supports regionally important numbers of <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> . The wintering birds of Lough Swilly have been well monitored since the early 1980s.	H A08 I Fertilisation M F02.03 I Fishing and harvesting aquatic resources M G01.01 I Outdoor sports and leisure activities, recreational activities H A08 o Fertilisation M E01 o Urbanised areas, human habitation H A01 I Cultivation H A04 I Grazing H F01 Marine and Freshwater Aquaculture
Leannan River SAC (002176)	The site comprises the River Leannan and its main tributaries and lakes. The river from source to sea measures 46 km and drains a catchment area of 282 km. The Bullaba River	Gartan Lough and Lough Akibbon are excellent examples of oligotrophic lakes of sandy plains. The aquatic flora is diverse and includes an important population of the rare and legally protected <i>Najas</i>	H A02.01 b Modification of cultivation practices H C01 o Roads, paths and railroads

	<p>drains off the Glendowan Mountains and flows into Lough Gartan. The Leannan River flows from Lough Gartan in a north-easterly direction, passes through Lough Fern, and then onwards in an easterly direction through the town of Rathmelton and into Lough Swilly. The main tributaries within the site are the lower Glashagh and Lurgy. Lough Gartan and the connected Lough Akibbon are oligotrophic lakes while Lough Fern is a mesotrophic or naturally eutrophic system. After leaving the higher ground in the vicinity of Gartan Lough, the River flows mostly through agricultural lands. Other habitats within the site include wet grassland, improved grassland, broad-leaved deciduous woodland, scrub, wet heath, and freshwater marsh.</p>	<p>flexilis, as well as scarce species such as <i>Pilularia globulifera</i>. Habitat quality is good. The site supports an important population of <i>Margaritifera margaritifera</i>, with over 1000 individuals estimated in 1995 and an age range from comparatively young to elderly (c.80+ years). The system is of importance for the conservation of <i>Salmo salar</i> and is notable as a good spring and grilse salmon river with extensive spawning habitats and good water quality. <i>Lutra lutra</i> is well distributed throughout. Lough Gartan has a population of <i>Salvelinus alpinus</i>. A number of Red Data Book plant species occur within the site, including <i>Trollius europaeus</i>, <i>Pseudorchis albida</i> and <i>Omalotheca sylvatica</i>. An important roost for <i>Nyctalus leisleri</i> occurs at Ramelton. <i>Gavia stellata</i>, an extremely rare breeding bird in Ireland, nests within the site.</p>	<p>H H01.05 b Pollution to surface waters (limnic & terrestrial, marine & brackish) H H02 b Pollution to groundwater (point sources and diffuse sources) H J02.10 b Human induced changes in hydraulic conditions</p>
<p>Horn Head and Rinclevan SAC (000147)</p>	<p>The fixed dune habitat is extensive in area and of good quality and is considered one of the best examples in County Donegal. Humid dune slacks and dunes with <i>Salix repens</i> are well represented and of good quality. There are also moderate to good examples of shifting marram dunes and embryonic dunes. The area of machair is small in extent and only of moderate quality. Lurgabrack dunes support a well developed bryophyte flora which includes rare species such as <i>Bryum marratii</i> and <i>Thuidium abietinum</i>. The site supports an important population of <i>Najas flexilis</i> and recently discovered populations of <i>Petalophyllum ralfsii</i> and</p>	<p>This coastal site is located to the west of Dunfanaghy village in north Co. Donegal. The bedrock geology is dominated by quartzite (which forms the Horn Head cliffs) interspersed with smaller amounts of schist and metadolerite bedrock elsewhere. Extensive areas of sand dominate the south-western and eastern portions of the site while peaty podsoles with occasional rock outcrops dominate in the north. New Lake is a slightly brackish waterbody which was formed in the 1920s when blown sand (from the dunes to the west) blocked the outlet which connected Rinclevan Strand to the sea. The site comprises a complex of coastal habitats of which open marine areas sea-cliff sand dunes (various types) blanket bog and heath occupy the largest</p>	<p>H A04 grazing i H A04 grazing o H E01.03 dispersed habitation o L A08 'Fertilisation o L B Sylviculture, forestry o L C01.01.01 Sand and gravel extraction i L C01.03.01 'hand cutting of peat i L D01.01 'paths, tracks, cycling tracks i L E03.04 Other discharges i L F02.01.02 netting i L G01.02 walking, horseriding</p>

	<p>Vertigo geyeri. Two further Red Data Book plant species Ligusticum scoticum and Agrostemma githago have been recorded from the site though it is unlikely that the latter now occurs as it is considered extinct in Ireland. The cliffs at Horn Head are of high importance for seabirds supporting an internationally important population of Alca torda and nationally important populations of Fulmarus glacialis Rissa tridactyla and Uria aalge. The Annex I Bird Directive species Falco peregrinus and Pyrrhocorax pyrrhocorax breed within the site. Regular wintering populations of Cygnus cygnus Anser albifrons flavirostris and Branta leucopsis occur (latter two of national importance) along with a variety of other waterfowl species. Breeding waders are also found notably Calidris alpina a Red Data Book species. A small to medium sized population of Halichoerus grypus occurs.</p>	<p>areas. Other habitats which occur include intertidal sand and mud flats wet grassland and improved grassland. The main land uses within the site are agriculture (mostly grazing) and recreational activities.</p>	<p>and non-motorised vehicles i L G01.02 walking, horseriding and non-motorised vehicles o L J01 fire and fire suppression i M A03 mowing / cutting of grassland o M E01.03 'dispersed habitation o M E03.04 Other discharges o M F02.01.02 netting o M G02.01 golf course o</p>
<p>Gweedore Bay and Islands SAC (001141)</p>	<p>Gweedore Bay and Islands is a large and ecologically diverse site situated on the north-west coast of Co. Donegal. The site extends for approximately 16 km from north to south. The coastline is very indented, with several large, intertidal inlets. The islands provide some shelter though their western sides, as well as parts of the mainland, are very exposed to the Atlantic swells. The shoreline varies from bedrock to boulder/cobble beaches to shingle and sand.</p>	<p>This is an ecologically diverse site generally of good quality. Excellent diversity of dunes, with the fixed dunes of particular note for their extent/area. Decalcified fixed dunes are also well represented, including the type with Empetrum nigrum. Embryonic dunes are very well developed, as well as shifting Marram dunes and dune slacks. Machair occurs at several locations, though the quality is often reduced by over-grazing and other activities. Two significant examples of saline lake lagoons, a type of lagoon that is relatively common on the Atlantic coast of Ireland,</p>	<p>H A04 Air pollution, air-borne pollutants o H A04 Air pollution, air-borne pollutants i L A05.02 'stock feeding i L A05.02 'stock feeding o L A08 'Fertilisation o L C01.01 'Sand and gravel extraction i L C01.01.02 removal of beach materials i</p>

	<p>The predominant geology of the site is granite, though much of the bedrock is covered by calcareous sands and heath. Habitats of relatively small extent include salt marsh, deciduous woodland and blanket bog. Many of the islands are uninhabited and relatively undisturbed.</p>	<p>occur within the site. Many plant and invertebrate lagoonal specialists are found. Some very fine examples of perennial vegetation of stony banks are found within this large site. Dry heath is a well represented habitat and occurs in association with <i>Juniperus communis</i> formations and alpine heath, the latter including the locally rare <i>Arctostaphylos uva-ursi</i>. Two plants listed on Annex II, <i>Petalophyllum ralfsii</i> and <i>Najas flexilis</i>, occur within the site as well as three Red Data Book species. The site supports an important population of <i>Branta leucopsis</i> (exceeds international threshold at times) and has the largest winter population of <i>Clangula hyemalis</i> in the country. <i>Sterna hirundo</i> and <i>Sterna paradisaea</i> breed in low numbers and <i>Pyrhocorax pyrrhocorax</i> is resident. Several wader species breed, with notable populations of <i>Haematopus ostralegus</i>, <i>Vanellus vanellus</i> and <i>Calidris alpina</i>. The site supports an important population of <i>Lutra lutra</i>.</p>	<p>L C01.03 Peat extraction o L D04.01 'airport o L E03.04 'Other discharges i L F01 Marine and Freshwater Aquaculture i L F06 Hunting, fishing or collecting activities not referred to above i L G01.02 'walking, horseriding and non-motorised vehicles i L G02.07 sports pitch o L K01.01 'Erosion o L K01.01 'Erosion i M D01.01 paths, tracks, cycling tracks o M D01.01 paths, tracks, cycling tracks i M E01.03 'dispersed habitation o M G02.01 golf course o M G02.08 camping and caravans i</p>
<p>West of Ardara/Maas Road SAC (000197)</p>	<p>The site comprises most of the peninsula situated west of the Ardara/Maas road, an area of blanket bog, lakes and heath to the east of this road, two large bays to the north and south of the peninsula, the lower section of the Gweebarra River and the island of Inishkeel situated 1km to the north of the peninsula. Much of the marine component of the site comprises shallow bays, estuaries, sand and sandflats. A large</p>	<p>An exceptionally diverse, large site with a wide range of marine, coastal and inland habitats, many of which are of very high quality. The site holds several rare or scarce plant and animal species, including <i>Najas flexilis</i> which has been recorded from two stations on the site, <i>Petalophyllum ralfsii</i>, populations of <i>Margaritifera margaritifera</i>, <i>Vertigo geyeri</i>, <i>Lutra lutra</i>, <i>Salmo salar</i>, <i>Phoca vitulina</i> and a large population of <i>Euphydryas aurinia</i>. The site is notable for the many important bird populations that occur,</p>	<p>H J01.01 burning down i L A03.03 abandonment / lack of mowing i L A04.01.05 intensive mixed animal grazing i L A04.03 abandonment of pastoral systems, lack of grazing i L A08 Fertilisation i L B02.02 'forestry clearance i</p>

	<p>area of the site comprises a mosaic of blanket bog, heath, exposed rock, lakes and other wetlands, and humid grassland, but coastal habitats such as sand dunes, machair and salt marshes are well represented. Small areas of scrub and broad-leaved deciduous woodland are scattered throughout the site. Many of the coastal sections of the site are underlain by metamorphic rocks and limestone; most of the inland section of the site is underlain by intrusive igneous granodiorites.</p>	<p>including nine species listed on Annex I of Council Directive 79/409/EEC.</p>	<p>L C01.01.02 removal of beach materials i L C01.03.01 'hand cutting of peat i L C01.03.02 mechanical removal of peat i L D01.01 'paths, tracks, cycling tracks i L D01.02 roads, motorways i L E03.03 disposal of inert materials i L E05 Storage of materials i L F02.03 Leisure fishing i L F06 Hunting, fishing or collecting activities not referred to above i L G01.03.02 off-road motorized driving i L G05.01 Trampling, overuse i L G05.09 fences, fencing i L K01.01 Erosion i M H01.05 diffuse pollution to surface waters due to agricultural and forestry activities b M J02.15 Other human induced changes in hydraulic conditions i</p>
<p>Rutland Island and Sound SAC (002283)</p>	<p>Rutland Channel is a complex area of islands and small rocky outcrops. Aranmore Island provides shelter from the prevailing south-west winds. The communities on the northern and eastern coasts are moderately</p>	<p>The Rutland Channel area between the mainland and Aranmore Island offers a complex of unusual shallow reef and sediment communities in which species richness is high and a number of notable species occur. There are maerl beds at the more open coast</p>	<p>H J02.02 Removal of sediments (mud...) i L G01.01 'nautical sports i M A04 grazing i M D03.02 Shipping lanes i</p>

	<p>exposed or sheltered from wave action. Other islands such as Rutland Island provide areas of further shelter and conditions are very or extremely sheltered from wave action and subject to moderate tidal streams. Bedrock is mainly metamorphic quartzite with intrusions of igneous granite and other rocks rich in silica on the south coast of Aranmore Island. Rutland Island has substantial areas of dunes, with highly calcareous sands over granite bedrock. Small areas of marsh vegetation also occur. Sally's Lough is a saline lake lagoon with a narrow tidal inlet that is apparently artificial.</p>	<p>sites on the south of Rutland Island, as well as seagrass beds which host the rare hydroid <i>Laomedea angulata</i>. Littoral reef communities are representative of communities that occur on rock in sheltered locations on the north-west seaboard of Ireland. Species richness in the sublittoral fringe is unusually high, as it is in many of the sublittoral reef communities, where anthozoan, nudibranch, bryozoan and ascidian species of conservation importance occur, most notably <i>Stolonica socialis</i> which in Ireland is recorded only on the south-east and north-west coasts. An important dune system with a good diversity of dune types occurs on Rutland Island, with fixed dunes, shifting marram dunes, embryonic dunes and some humid dune slacks represented. Annual driftline vegetation is also well represented. While the saline lake lagoon within the site is of a type that is relatively common on the Atlantic coast of Ireland, it is a particularly good example in relatively natural surroundings. The fauna is moderately rich and includes four lagoonal specialists and at least three apparently rare species. An apparently rare alga, <i>Cladophora battersii</i>, occurs in abundance. The site supports an important population of <i>Phoca vitulina</i>.</p>	
<p>Slieve Tooley/Tormore Island/Loughros Beg Bay SAC (000190)</p>	<p>This large coastal/upland site is situated west of Ardara village, Co. Donegal. Approximately 50% of the site lies above an altitude of 200 metres giving it a truly montane feel. The dominant rock type within the site is resistant and unyielding quartzite with small areas of schist and gneiss in the lower intervening valleys. The</p>	<p>An excellent diversity of coastal and upland habitats are present at this remote and largely undisturbed site. Vegetated sea cliffs are very well represented, extending for approximately 16 km and reaching over 200 m in height. Of particular note are the very good examples of decalcified fixed dunes, with lesser amounts of fixed dunes with <i>Empetrum nigrum</i>. There are extensive areas of both lowland and upland</p>	<p>L A02.02 crop change i L A05.02 stock feeding i L C01.03.01 hand cutting of peat i L E03.01 disposal of household / recreational facility waste i L G01.03.02 off-road</p>

	<p>most extensive habitats within the site are blanket bog, heath, open marine areas and sea-cliff with smaller areas of additional habitats including upland wet grassland, oligotrophic lake, sand-dune, salt-marsh and decalcified dune heath. The Slieve Tooley plateau is one of the largest (c. 2,500 km sq.) remaining areas of unafforested upland in the country and must be considered to be one of the best remaining unbroken expanses of wilderness.</p>	<p>blanket bog, parts of which are of good quality. Alpine heath, with characteristic species such as <i>Juniperus communis</i> subsp. <i>nana</i> and <i>Arctostaphylos uva-ursi</i>, occurs on shallow peat in the more exposed areas. The legally protected plant <i>Pilularia globulifera</i> occurs, as does the Red Data Book species <i>Saxifraga oppositifolia</i>. The rugged site provides habitat for <i>Falco peregrinus</i>, <i>Falco columbarius</i> and an important population of <i>Pyrrhocorax pyrrhocorax</i>. The extensive cliffs, especially at Tormore, support seabird colonies, including auks. An important herd of <i>Halichoeris grypus</i> breeds, probably the third largest in the country. <i>Lutra lutra</i> is resident within the site. A population of <i>Vertigo angustior</i> was discovered at Glen Bay dunes in 2000.</p>	<p>motorized driving i L G05.09 fences, fencing i M A04.01.02 intensive sheep grazing i M A04.03 abandonment of pastoral systems, lack of grazing i M C01.01.01 sand and gravel quarries i M C01.03.02 mechanical removal of peat i M J01.01 burning down i</p>
<p>St. John's Point SAC (000191)</p>	<p>A narrow peninsula of carboniferous limestone projecting south-west into Donegal Bay. These limestone rocks are particularly rich in fossils. St. John's Point is exposed to prevailing wind and swells from the west. It drops steeply and in vertical cliffs to 40 m BCD. The predominant vegetation of the site is dry calcareous grassland, but limestone pavement, calcareous marshes, lakes, coastal heath and unimproved wet grassland also occur. Reef occurs around much of the site, but is particularly well developed near the end of the peninsula. Here sea caves are also found.</p>	<p>The site is important for both terrestrial and marine habitats. It contains areas of species - rich limestone pavement. This is a rare habitat in Ireland and particularly so in the north-west. The associated dry calcareous grassland is of high quality and in places rich in orchid species. Several areas of species-rich unimproved wet <i>Molinia</i> meadows are found. This habitat is becoming increasingly rare in Ireland through grassland improvement. Small calcareous marshes and an alkaline fen are found on the site. St John's Point has very good examples of circalittoral rock communities that are exposed to wave action and contain a number of rare and uncommon species. Most notable are the shallow circalittoral communities that are characterized by the sea fan, <i>Eunicella verrucosa</i>, and its associated ophistobranch, <i>Tritonia nilsodhneri</i>, which are common, although both are close to the northern limits of their range.</p>	<p>H G01.03.02 motorised vehicles i H G05.01 Trampling, overuse i L F04.02.02 collection (fungi, lichen, berries etc.) i L G01.07 scuba diving, snorkeling i M G01.02 walking, horseriding and non-motorised vehicles</p>

		<p>Rare species include the sponge, <i>Bienna variantia</i>, the anemone, <i>Aureliania heterocera</i>, and the red alga <i>Odontalia dentata</i>. Additional interesting records for the area include the seaslug <i>Hancockia uncinata</i>, the nocturnal crab <i>Bathynectes longipes</i>, and the anthozoans <i>Paraerythropodium coralloides</i> and <i>Parazoanthus anguicomus</i>. Recent survey suggests that a series of small caves stretches along the south-east coast of the infralittoral and circalittoral reef from Black Rock to Portnagh Rock. These also shelter rare species and deserve further exploration. The shallow bay sediment communities in the site range from being sheltered from, and exposed to, wave action. They are principally composed of maerl gravel formed by <i>Lithothamnion corallioides</i> and populated by rare burrowing anemones (<i>Aureliania heterocera</i>) and starfish (<i>Luidia sarsi</i>). The site is remarkably undisturbed.</p>	
<p>Donegal Bay (Murvagh) SAC (000133)</p>	<p>This site comprises the extreme inner part of Donegal Bay. Several large rivers, notably the River Eske, enter the site. It is typically estuarine in character, with large expanses of intertidal sand and mud flats, channels, saltmarsh, sand dunes and sandy and shingle beaches. Several grassy islands occur in the site. The site provides habitat for a diversity of estuarine bird species, and the islands are used by <i>Anser albifrons flavirostris</i>. The area is underlain by limestone and shale bedrock from the carboniferous era.</p>	<p>The site is a good example of a sheltered estuarine system, with extensive intertidal sand and mud flats mostly of good quality. The Murvagh peninsula still has some areas of fixed dunes and humid dune slacks, though these dune habitats are only of moderate quality. The population of <i>Phoca vitulina</i> is one of the largest in the country. The site is of some importance for estuarine birds and is visited by <i>Anser albifrons flavirostris</i>. <i>Pyrola rotundifolia</i>, a Red Data Book species, is found on the site.</p>	<p>L G02.08 camping and caravans i H K01.01 'Erosion i M C01.01.02 removal of beach materials i M A04.01.01 intensive cattle grazing i H G05.01 Trampling, overuse i M J02.01.03 infilling of ditches, dykes, ponds, pools, marshes or pits i H F01.01 intensive fish farming, intensification i M G01 Outdoor sports and</p>

			leisure activities, recreational activities i
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (000625)	This site is located on the south side of Donegal Bay and c.18 km north of Sligo town. The part of the site west of Mullaghmore Head is very exposed to prevailing wind and swells from the Atlantic, whereas the Head itself affords moderate shelter to the eastern part of the site. Bedrock is Middle Carboniferous limestone. The site is generally low-lying and includes a fine range of coastal habitats, with open shallow marine areas, intertidal sandy beaches, bedrock shoreline, various sand dune types, including fixed dunes and machair. Bunduff Lough is a shallow coastal lake, probably with a brackish influence, and is fringed with swamp, fen and dune grassland. Grazing is the main landuse within the site and area is used for water-based recreational activities.	This site is of importance in terms of both habitat diversity and quality. The machair and alkaline fen habitats are particularly well developed. Much of the machair is wet in character and there are interesting transitional areas with the alkaline fen. The machair is considered one of the best examples in the north-west region. A very substantial area of fixed dunes occur, which are well-developed and mostly intact. Also present are well developed marram dunes and Juniper scrub. Intertidal sandflat, shallow bay and reef habitats are well represented, with a well developed zonation of benthic communities and high species richness in the littoral sediments. Petalophyllum ralfsii has recently been found in the machair habitat. The site has a number of locally rare plant species, including Orobanche rubra, Cuscuta epithymum, Epipactis palustris and Ophrys apifera. Cygnus cygnus and Pluvialis apricaria, both Annex I Bird Directive species, are regular in winter. Pyrrhocorax pyrrhocorax breeds, as well as several wader species, notably Vanellus vanellus and small numbers of seabirds.	H A02.01 agricultural intensification i H A04.01.01 intensive cattle grazing i H A05.02 stock feeding i H A08 'Fertilisation i L G01.02 walking, horseriding and non-motorised vehicles i L J02.01.03 'infilling of ditches, dykes, ponds, pools, marshes or pits i M A04.02.02 non intensive sheep grazing i M A10.01 removal of hedges and copses or scrub i M K01.01 Erosion i
Skerries and Causeway SAC (UK0030383)	General site characteristics: Soil & geology: Basalt, Ulster White Limestone, Waterloo Mudstone. Geomorphology & landscape: Islands, coastal cliffs and bays, bedrock and stony reef, sandbanks, subtidal seagrass, sandwaves, sea caves.	Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom. Reefs for which this is considered to be one of the best areas in the United Kingdom. Submerged or partially submerged sea caves for which this is considered to be one of the best areas in the United Kingdom. Phocoena phocoena for	L C03 'Peat extraction O L C02 Exploration and extraction of oil or gas O H M01 Changes in abiotic conditions O H I01 invasive non-native species I L D03 shipping lanes, ports, marine constructions I

		which the area is considered to support a significant presence.	M G01 'Outdoor sports and leisure activities, recreational activities I H F02 Fishing and harvesting aquatic resources I H H03 Marine water pollution B L H01 Pollution to surface waters (limnic, terrestrial, marine & brackish) O
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Table 1 Natura 2000 sites screened in for further assessment; site description, pressures and threats

<https://natura2000.eea.europa.eu/Natura2000/sdf/#/sdf?site=IE0000197&release=55>

Appendix 3 Planning permission applications within 500m of the project location.

PLANNING AUTHORITY	PLANNING APPLICATION REFERENCE	DESCRIPTION OF PROPOSED DEVELOPMENT	DEVELOPMENT ADDRESS	APPLICATION STATUS	TYPE OF APPLICATION	FINAL DECISION ON APPLICATION
Donegal County Council	2150381	1) ENTRY PORCH CONSTRUCTED OVER THE EXISTING ACCESS RAMP (2) 2NO. EXTERNAL SIGNS (C) SERVICE HATCH ALL LOCATED ON THE SOUTH EAST FACING ELEVATION AND PERMISSION FOR (1) REMOVAL OF THE EXISTING CONCRETE RAMP ACCESSING THE BEACH (2) CONSTRUCTION OF A TIERED BALCONY AREA WITH 2.1M HIGH PERIMETER GLAZED WIND BREAKER, RETRACTABLE AWNINGS, ACCESS FROM THE EXISTING BUILDING AND STEPPED ACCESS FROM THE FOOTPATH (3) CONSTRUCTION OF NEW STEPPED AND RAMPED ACCESS TO THE BEACH	TANK & SKINNY'S, SWILLY ROAD, ARDARAVAN	APPLICATION FINALISED	RETENTION	CONDITIONAL
Donegal County Council	2461723	EXTENSION OF AN EXISTING APARTMENT BLOCK TO PROVIDE 4 NO. ADDITIONAL APARTMENTS WITH ASSOCIATED STAIRWELL AND ALL ASSOCIATED WORKS AND SITE WORKS	ARDARAVAN, BUNCRANA, LIFFORD PO	APPLICATION FINALISED	PERMISSION	REFUSED
Donegal County Council	1951532	CONSTRUCTION OF A LEISURE PARK WITH 26 NO. LUXURY STATIC HOLIDAY HOMES WITH CONNECTION TO EXISTING MAINS SEWER AND PUBLIC SERVICES	SWILLY ROAD, ARDARAVAN, BUNCRANA	INCOMPLETED APPLICATION	OUTLINE PERMISSION	
Donegal County Council	1851194	RETENTION AND COMPLETION OF ALTERATIONS TO EXISTING DWELLING COMPRISING; REVISED FRONT PORCH AND BAY WINDOW DESIGN, REAR SINGLE STOREY EXTENSION, ALTERATIONS TO EXTERNAL ELEVATIONS, REVISED SINGLE STOREY DETACHED SIDE GARAGE AND BOILER ROOM AND ALL ASSOCIATED SITE WORKS	SWILLY ROAD, ARDARAVAN, BUNCRANA	APPLICATION FINALISED	RETENTION	CONDITIONAL
Donegal County Council	2051214	(1) UPSIZING OF APPROXIMATELY 240M OF 225MM SEWER TO 450MM MINIMUM DIAMETER FROM THE JUNCTION OF CAHIR O'DOHERTY AVENUE AND CRANA ROAD TO OUTSIDE OSBORNE HOUSE ON SHORE ROAD,	ARDARAVAN & BALLYMACARRY LOWER, BUNCRANA, CO	APPLICATION FINALISED	PERMISSION	CONDITIONAL

		(2) UPSIZING OF APPROXIMATELY 150M OF 225/300MM SEWER TO 450MM MINIMUM DIAMETER FROM OUTSIDE OSBORNE HOUSE ON SHORE ROAD TO OPPOSITE REAR ENTRANCE TO SCOIL MHUIRE SECONDARY SCHOOL ON GRIANAN PARK, (3) UPSIZING OF APPROXIMATELY 375M OF 300/375MM SEWER TO 525MM MINIMUM DIAMETER FROM OPPOSITE REAR ENTRANCE TO SCOIL MHUIRE SECONDARY SCHOOL ON GRIANAN PARK TO NEAR THE JUNCTION OF AILEACH ROAD AND RAILWAY ROAD (R238), (4) UPSIZING OF APPROXIMATELY 100M OF 375MM SEWER TO 500/525MM MINIMUM DIAMETER FROM NEAR THE JUNCTION OF AILEACH ROAD AND RAILWAY ROAD (R238) TO THE SOUTHERN SIDE OF VICTORIA BRIDGE ON RAILWAY ROAD (R238). THIS SECTION INCLUDES A 500MM DUCTILE IRON PIPE CROSSING OF THE VICTORIA BRIDGE OVER THE MILL RIVER. THIS PIPELINE WILL BE SUSPENDED FROM THE UNDERSIDE OF THE EXISTING BRIDGE STRUCTURE, ADJACENT TO AND PARALLEL TO AN EXISTING PIPELINE, (5) UPSIZING OF APPROXIMATELY 155M OF 375MM SEWER TO 600MM MINIMUM DIAMETER FROM THE SOUTHERN SIDE OF VICTORIA BRIDGE ON RAILWAY ROAD (R238) TO THE WESTERN END OF THE DONEGAL COUNTY COUNCIL STORAGE COMPOUND, (6) UPSIZING OF APPROXIMATELY 15M OF 600MM SEWER TO 750MM MINIMUM DIAMETER FROM THE WESTERN END OF THE DONEGAL COUNTY COUNCIL STORAGE COMPOUND TO THE WWTP INLET, (7) ALL ASSOCIATED SITE DEVELOPMENT WORKS ABOVE AND BELOW GROUND A NATURA IMPACT STATEMENT (NIS) ACCOMPANIES THIS APPLICATION	DONEGAL			
Donegal County Council	2050254	CONSTRUCTION OF A NEW STOREY AND A HALF DETACHED DWELLING, NEW VEHICULAR ENTRANCE WITH A REALIGNED BOUNDARY WALL AND NEW PARKING AREA FOR THE DEVELOPMENT ACCESSED	SWILLY ROAD , BUNCRANA , LIFFORD PO	APPLICATION FINALISED	OUTLINE PERMISSION	CONDITIONAL

		FROM AILEACH ROAD (AT LOCATION OF EXISTING VEHICULAR ENTRANCE), WHICH WILL BE LINKED TO THE DWELLING BY MEANS OF A NEW RIGHT OF WAY				
Donegal County Council	1751864	A TEN YEAR DURATION FOR DEVELOPMENT CONSISTING OF THE CONSTRUCTION OF A NEW STORM WATER STORAGE TANK AND ASSOCIATED WORKS	BUNCRANA WASTEWATER TREATMENT PLANT , RAILWAY ROAD , BALLYMACARRY LOWER	APPLICATION FINALISED	PERMISSION	CONDITIONAL
Donegal County Council	2251351	ERECTION OF AN ESCAPE STAIRCASE FROM THE EXISTING CLUB HOUSE AND ALL ASSOCIATED SITE DEVELOPMENT WORKS	BALLYMACARRY LOWER , BUNCRANA , LIFFORD PO	APPLICATION FINALISED	PERMISSION	CONDITIONAL
Donegal County Council	2560614	ALTERATIONS TO THE FRONT ELEVATION OF EXISTING INISHOWEN GATEWAY HOTEL AND ALL ASSOCIATED SITE DEVELOPMENT WORKS	BALLYMACARRY LOWER , BUNCRANA , LIFFORD PO	APPLICATION FINALISED	PERMISSION	CONDITIONAL
Donegal County Council	2250219	PARKING, OPERATION AND TRADING OF HOT FOOD VAN TO THE REAR OF EXISTING PUBLIC HOUSE AND ALL ASSOCIATED WORKS	RAILWAY ROAD , BALLYMACARRY LOWER , BUNCRANA	WITHDRAWN	PERMISSION	

Table 1. Planning applications in the past 10 years, within 500m of the proposed project development.

Appendix 4 Lough Swilly SPA SCI Birds: Habitat, Diet and Conservation Status

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Great Crested Grebe	Resident along all Irish coasts and on larger freshwater bodies.	Age of first breeding: 2 years. Great Crested Grebes breed on large, shallow eutrophic loughs, and along canals and slow flowing rivers – wetlands with emergent vegetation bordered by open water are generally selected. Nests are a large mound of aquatic vegetation and are usually well concealed within reeds.	Winter visitor from the Continent.	Winter distribution is widespread with greatest concentration in the north midlands and northeast and birds from the continent join the resident population. Outside the breeding season Great Crested Grebes are often solitary with some birds moving to the coast through the winter. Occasionally, large congregations form for short periods. Birds start returning to breeding areas from mid-February.	Mainly fish, sometimes supplemented with aquatic invertebrates.	Amber (Nov 2025)	The highest numbers of breeding pairs can be found on loughs in Counties Canam, Armagh and Monaghan and there are 13 sites that regularly support nationally important numbers of great crested grebe over the winter. Wight sites holding the largest concentrations are Belfast Lough (Co. Down) Loughs Neagh and Beg (Co. Armagh), Dundalk Bay (Co. Louth), Carlingford Lough (Co. Down) Lough Swilly (Co Donegal), Upper Lough Erne (Co. Fermanagh), Cork Harbour (Co. Cork) and Lough Sheelin (Co. Cavan).
Greylag Goose	Yes. Breeding populations have a patchy distribution, largest numbers breeding in Iceland.	Breeds by lakes and reservoirs, with the nest site often close to water and hidden in reeds or other waterside vegetation. Nests in pairs, but locally colonially.	Winter migrant, with Icelandic birds between November & April. Feral birds are present year round.	The Icelandic population winters in Scotland and Ireland, occurring mostly at coastal sites. Highly gregarious.	Greylag Geese used to concentrate more on estuaries, where they fed on the roots of rushes and sedges. Arable farming in Scotland increased during the post-war years, and appeared to coincide with increasing numbers of Greylag Geese switching to feed on	Amber (Nov 2025)	Geese. In winter Icelaandic birds occur ar 7 main locations with numbers reaching 3,000, but usually in low hunderds, feeding on grasslands. The feral population is more widespread, occurring usually in smaller numbers, ususally less than 10, throughout the country. Lough Swilly (Co.

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
					arable farmland. Greylag Geese currently feed mostly on cereal stubble and grassland in their wintering areas.		Donegal) Braganstown (Co. Louth), Poulaphouca Reservoir (Co. Wicklow), Mountseskin/ Gortlum (Co. Dublin) and the River Suir Lower (Co. Waterford) are among the top sites.
Wigeon	Non breeding in Ireland although breeding does take place in Scotland and extreme north of England.	Breed on shallow freshwater marshes, under tussocks adjacent to lakes and lagoons or on lake islands.	Common winter visitor to wetlands throughout Ireland from September and April.	Widespread - they occur on coastal marshes, freshwater and brackish lagoons, estuaries, bays. Many on inland wetlands, lakes, rivers and turloughs. The Icelandic breeding component of this population winters mostly in Ireland and western Britain, though some continue on to parts of continental Europe.	This species grazes on coastal seagrass and algae, particularly on Zostera spp. and Enteromorpha spp., and also feeds regularly on grasslands and cereal crops.	Amber (Nov 2025)	Duck one of the most numerous of species in Ireland. Fairly widespread and common winter visitor. Can be found in flocks up to and over 1,000 birds on large wetlands and water bodies.
Teal	Small numbers breed throughout Ireland. Numbers increase substantially after Autumn and Winter migration takes place.	They usually nest near small freshwater lakes or pools and small upland streams away from the coast, and also in thick cover.	Yes	Widespread on wetlands with good cover, such as reedbeds. Wide variety of habitats, both coastal and inland, and usually below an altitude of 200 metres, including coastal lagoons and estuaries and inland	Small seeds predominate, but Enteromorpha sp. and molluscs are also frequently taken. Occasionally feed on chironomid larvae where available, though usually during the summer months. They feed by day	Amber (Nov 2025)	Duck. Shannon & Fergus Estuary (Co. Clare), Little Brosna Callows (Co. Offaly), Lough Ree (Co. Longford), Strangfor Lough 9Co. Doan and Lough Neagh and Beg (Co. Antrim) are among the best wintering sites (2,000-3,000 birds on each site).

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
				marshes, lakes, ponds and turloughs.	where they are safe from shooting.		
Mallard	Resident.	Nest sites vary, mostly in ground where hidden in vegetation.	Winter migrant from Iceland, Fennoscandia, Russia, Poland, Denmark, Germany, The Netherlands, Belgium & France. Additional captive-bred birds are released each year for hunting.	Mallard are the most widespread species, although not quite as numerous as Wigeon or Teal. They occur in almost all available wetland habitats in Ireland.	Diet highly variable, and plant material, particularly seeds predominate. A range of animal material is also taken, including molluscs and crustaceans. Other food taken includes grain and stubble, and they have been shown to feed on a variety of food items presented by humans.	Amber (Nov 2025)	Duck. Common throughout Ireland. Loughs Neagh & Beg in County Antrim, Wexford Harbour & Slobs in County Wexford, Lough Foyle in County Derry, Strangford Lough in County Down and Lough Swilly in County Donegal are among the top wintering sites (1,000-5,500 birds).

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Shoveler	Resident population breeding mainly at inland lakes and waterways, few at coastal estuaries.	Nests on the ground among waterside vegetation, often many nests in close proximity. Breeding in Ireland is centred around Lough Neagh and the mid-Shannon basin.	Yes. Ballyallia lake (Co. Clare), Little Brosna Callows (Co. Offaly), Southren Roscommon Lakes (Co. Roscommon) and Lough Rea (Co. Galway) are among the top wintering sites (200-400 birds).	Shoveler prefer shallow eutrophic waters rich in plankton, and occur on a variety of habitats while wintering in Ireland, including coastal estuaries, lagoons and inland lakes and callows.	Feed predominantly on zooplankton which are found mostly on ephemeral wetlands, particularly turloughs and callows. They also feed on small molluscs, insects and larvae, seeds and plant material and are frequently seen dabbling around the edges of waterpools.	Red (Nov 2025)	Duck. Resident & winter migrant. Most occur between October and March. Wintering birds originate from breeding populations which range across France, northern Europe, the Baltic and western Russia. Ireland and northern Britain also support the small Icelandic breeding population during the winter.
Scaup	No. The breeding range includes Greenland, Iceland, northern Scandinavia and Siberia, as well as North America.	Scaup nest beside shallow tundra pools and lakes.	Widespread around coastal loughs and bays in winter. Loughs Neagh and Beg (Co. Antrim) by far the most important, supporting almost 4,000 birds. Tralee Bay, Lough Gill and Akeragh Lough (Co. Kerry) Carlingford Lough (Co. Down) Wexford Harnour and Slobs (Co. Wexford) and Belfast Lough (Co. Antrim) are otehr important wintering sites (200-900 birds)	Scaup occur mostly in small parties and occasionally larger flocks around coastal estuaries and bays, on brackish lagoons and in shallow marine waters, usually less than 10 m in depth.	Their diet in winter consists largely of animal matter, principally crustaceans and molluscs.	Red (Nov 2025)	Duck. Winter visitor, from Iceland, northern Europe and western Siberia, mostly occurring between November and April.

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Goldeneye	Not usually, Breeds in Northern Europe. One pair bred at Lough Neagh in 2000 - the first breeding record in Ireland.	Nests in holes in trees and nestboxes, and occasionally in rabbit burrows, usually near water. Reported in Britain during the early 1930s, with no further records until one in Scotland in 1970. Breeding range has since expanded, to 95 nests in 1990.	Winter visitor, most occurring in Ireland between November and April, come from the population breeding in Fennoscandia.	Winter on coastal estuaries and inland lakes. Relatively widespread distribution in Ireland.	Invertebrates, mostly crustaceans, but also molluscs and occasionally small fish. Insects, especially caddis-fly and chironomid larvae, dominate the diet of birds occurring on inland waters.	Red (Nov 2025)	Duck. Lough neagh and Beg (Co. Antrim), Belfast Lough (Co. Down) Lough Sheelin (Co. Cavan), Strangford Lough (Co. Down) and Larne (Co. Antrim) are among the best wintering sites, each supporting between 200 and 7,500 birds.
Red breasted Merganser	Resident.	Breed on freshwater. Nest on sheltered lakes and large rivers throughout the west and north of the country, though they are largely absent from Clare and a few pairs have been recorded in Wexford. They use a variety of nesting habitats, usually located beside fast-flowing rivers, large and small lakes, also along the coast, on islands and sea-loughs.	Winter visitor from the Continent.	Winter exclusively in brackish and marine waters, particularly in shallow protected estuaries and bays and lagoons, and also offshore.	Fish comprise the major component of the diet, predominantly small cod, hake and plaice. While on freshwater during the breeding season, they feed on roach, trout, salmon, eels and pike. They have also been recorded eating crustaceans and molluscs.	Amber (Nov 2025)	Duck. Top wintering sites each support 150-250 birds and include Inner Galway Bay in County Galway, Strangford Lough in County Down, Wexford Harbour & Slobbs in County Wexford and Larne Lough in County Antrim.
Coot	Yes. Common and widespread resident. Sedentary. Nesting on slow	This species is not as widespread as the Moorhen as it requires larger bodies of water on which to nest. They nest	In the winter large influxes from Europe, important sites for Coot include Lough Corrib (Co. Galway),	Winter distribution is more widespread than breeding distribution, birds are found on lakes,	Omnivorous. Feed on both plants and animals, but mainly on plants. Food taken from the water	Amber (Nov 2025)	Crakes & Rails. Resident at ponds and lakes throughout Ireland, augmented by winter visitors from the

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
	flowing watercourses and still water reed fringes. Widespread but absent from parts of Kerry, Cork, south-west Clare, west Galway, Mayo, Sligo and Donegal.	in large shallow water bodies that are rich in nutrients and have abundant bottom vegetation for food and some emergent vegetation for nest anchorage.	Lough Owel (Co. West meath and Tacumshin Lake (Co. Wexford) (>1000 birds).	coastal estuaries and river systems, but show a clear preference for large inland lakes.	surface, including emergent plants and whilst diving. Food includes plant shoots, seeds, insects, algae and fish. Will sometimes steal food from other birds, off it own species or from other species, such as ducks.		Continent and Britain - September to April.
Oystercatcher	Resident.	Nests principally on shingle beaches, dunes, salt marshes and rocky shores around the coast.	winter visitor (from Iceland and the Faeroes) - largest numbers in Ireland between September & March.	Use all coastal habitats, and particularly favour open sandy coasts.	The main food resource includes the larger invertebrates, particularly mussels and cockles that proliferate along sandy coasts. They also occasionally feed on grasslands where they prey on tipulid larvae and earthworms. They feed by both sight (for polychaete worms) and touch (bivalve mussels).	Red (Nov 2025)	Wader. Dundalk Bay in County Louth, Strangford Lough in County Down, Belfast Lough in County Down, Dublin Bay in County Dublin and Lough Foyle in County Derry are among the most important wintering sites (each supporting 3,000-10,000 birds).

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Knot	No. Breeds in Greenland and Canada.	Breed at low density, and often close to the coast, nesting on well concealed and sparsely vegetated gravel and rocky slopes.	Winter visitor from northern Greenland and from the Queen Elizabeth Islands of high Arctic Canada west to Prince Patrick Island. Most occur between October & February.	The wintering distribution is entirely coastal, and their preferred habitat mostly includes estuarine sites with extensive areas of muddy sand. They occur mostly in large flocks and on fewer estuaries than other wader species.	Feed predominantly on bivalve mussels and crustaceans. <i>Macoma balthica</i> is the preferred prey and <i>Hydrobia ulvae</i> , <i>Mytilus edulis</i> and <i>Cerastoderma edule</i> are selected when <i>Macoma</i> sp. is absent close to the surface of the sediment. Knots possess large numbers of sensors on their bills and that they are able to detect hard-shelled prey even when buried beyond the reach of their bills.	Red (Nov 2025)	Locally abundant winter visitor. Sundalk Bay (Co. Louth and Strnagforlough (Co. Down) support most birds (7,500 and 10,000 birds respectively). Dublin Bay (Co. Dublin), Boyne Estuary (Co. Louth, Rogerstown Estuary (Co. Dublin and Shannon and Fergus Estuary (Co. Clare all support > 2,000 birds.
Dunlin	Summer visitor from NW Africa/SW Europe, A limited number breed in some sandy / grassy locations along the west and north coasts.	Nests on the ground in sparse, low vegetation - in Ireland favours machair habitats.	Winter visitor from Scandinavia to Siberia, passage migrant from Greenland (heading south to winter in Africa). Most occur during the mid-winter period.	Common along all coastal areas - especially on tidal mudflats and estuaries. Very few inland.	Feed predominantly on small invertebrates of estuarine mudflats, particularly polychaete worms and small gastropods. They feed in flocks, in the muddier sections of the estuaries and close to the tide edge.	Red (Nov 2025)	Wader. Sandpiper. Map shows Donegal Bay as wintering only. Often occurs in very large flocks. Shannon & Fergus Estuary in County Clare and Dundalk Bay in County Louth regularly support >10,000 birds. Other important sites include Cork Harbour in County Cork, Lough Swilly in Donegal and Strangford Lough in Down (6,000-9,000 birds).

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Curlew	Yes.	Nests on the ground in rough pastures, meadows and heather. Not a common breeder, but found in most parts of the country.	Winter visitor to wetlands throughout Ireland, as well as breeding in small numbers in floodplains and boglands.	Winters in a wide range of wetland habitats (coastal and inland) and other good feeding areas including damp fields. The Irish breeding population is supplemented by Scottish and Scandinavian breeders in winter.	They feed mostly on invertebrates, particularly ragworms, crabs and molluscs. They are usually well dispersed across the estuary while feeding, but roost communally, usually along salt marshes and sand banks.	Red (Nov 2025)	Wader. Mapped in Donegal Bay as winter only. Numbers and range have declined substantially in recent decades. It is likely that increased afforestation and agricultural improvement are responsible for these declines. Shannon & Fergus Estuary in County Clare, Cork Harbour in County Cork, Lough Foyle in County Londonderry, Lough Swilly in County Donegal, Strangford Lough in County Down and the Wexford Harbour & Slobs in County Wexford support between 1,500 and 2,500 birds.
Redshank	Resident	Nests on the ground in grassy tussock, in wet, marshy areas and occasionally heather. Adults often keep guard standing on fence posts or high rocks. Breeds mainly in midlands (especially Shannon Callows) and northern half of the country, but not commonly anywhere in Ireland.	Winter visitor from Iceland and passage migrant (birds on passage from Scandinavia/the Baltic breeding areas to west African wintering areas). Highest numbers occur during the early autumn, when there is overlap of the populations.	A common wader of wetlands throughout the country, though mainly coastal estuaries in winter. Winters all around the coasts of Ireland, Britain and many European countries. Favours mudflats, large estuaries and inlets. Smaller numbers at inland lakes and large rivers.	Detect prey visually and feed mostly during the day along the upper shore of estuaries and along muddy river channels. Feed singly or in small groups, and their prey consists mostly of <i>Hydrobia</i> sp., <i>Corophium</i> sp. and nereid worms.	Red (Nov 2025)	Wader. Map shows donegal Bay as wintering only Strangford Lough in County Down, Shannon & Fergus Estuary in County Clare, Cork Harbour in County Cork, Belfast Lough in County Down, Dundalk Bay in County Louth and Dublin Bay in County Dublin support highest numbers (2,000-4,000 birds).

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Greenshank	Unlikely There have been occasional sightings of birds in suitable habitat (BoCCI listing), and one pair was confirmed to have bred in Co. Mayo on at least 2 occasions during the early 1970's (<i>Irish Birds 1: 236-238, 1978</i>).	The main breeding range in Europe extends from pool-dominated and boulder-shrewn bogland areas of Scotland to Scots Pine woods in Scandinavia.	Winter visitor to estuaries from September to April from Scotland and Scandinavia.	Mostly coastal distribution - while the majority are found on estuaries, up to 30% are estimated to winter along non-estuarine coast.	Feed mostly in deep water sites, channels, brackish pools and lakes, predominantly on invertebrates, particularly shrimps, crabs and <i>Hediste</i> sp., and small fish. They have a variety of feeding techniques, though mostly feed by pecking at the mud, water or vegetation, and catch fish by using a dash-and-lunge technique.	Green (Nov 2025)	Wader. Not very common - typically seen singly or in very small groups. Shannon & Fergus Estuary in County Clare, Strangford Lough in County Down, Lough Swilly in County Donegal and Cork Harbour in County Cork all regularly support >50 birds.
Blackheaded Gull	Resident along all Irish coasts, Breeds in small numbers on islands in larger lakes in western Ireland.	Breeds both on the coast and inland where they will often nest in colonies. Usually, nests on the ground in wetland areas, such as bogs and marshes and will also use man made lakes. Numbers breeding inland have declined dramatically, probably due to predation by the American Mink, which is an able swimmer and is able to access previously inaccessible nesting areas. The largest colonies in Ireland are in Northern Ireland on Lough Neagh. Colonies in the republic are not	Significant numbers arriving from the Continent in winter. Irish birds are augmented by wintering birds from northern and eastern Europe.	Are widespread on both on the coast and inland.	Feeds on insects especially in arable fields. Will also exploit domestic and fisheries waste.	Amber (Nov 2025)	Gull. Mapped All year in Donegal Bay An easy species to see, especially in the winter. Can be seen on ploughed fields and in towns and cities.

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
		widespread, the largest are found inland in Counties Galway, Monaghan and Mayo. and at coastal sites in Co. Wexford and Donegal.					
Common Gull	Local breeding species on islands in larger lakes in western Ireland.	Nests on the ground in a wide variety of situations, including, islands, cliffs and shingle banks. Breeds on the coast and inland in the west of Ireland, from Dingle to Malin Head, with most colonies in Co. Galway, Co. Mayo and Co. Donegal. Inland it can breed on islands in lakes where it has declined. These declines, like those of inland breeding Black-headed Gulls, have been attributed to predation by American Mink, reaching previously safe nesting areas.	Winter visitor to all Irish coasts, with significant numbers arriving from central and northern Scotland, Scandinavia and the Baltic. Numbers of resident birds are joined by wintering birds from Europe.	Winter visitor to all Irish coasts. Large increase in numbers during winter due to migration of birds from Europe.	Terrestrial and aquatic insects and invertebrates, fish.	Amber (Nov 2025)	Gull. Not a difficult species to see. Can be seen near the nesting areas in the west during the summer months and it is more widespread in the winter months. Over 600 have been counted in Dublin Bay in the winter.

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Sandwich tern	Yes. Mainly a summer visitor from late Amrch to September. One oof the largest colonies in Ireland can be seen at Lady's Island, near Rosslare (Co. Wexford), regularly with several hundren breeding pairs.	Nest colonially on the ground, mainly on the coast but with some colonies inland. Nests on islands, shingle spits and sand dunes. Populations of colonies fluctuate dramatically between years. Present in Ireland from March to September, with occasional winter records	Localised populations overwintering. About 10 to 15 birds winter in Galway Bay and Strangford Lough.	Winters in southern Europe and Africa. Irish breeders have been recorded as far away as the Indian Ocean. About 10 to 15 birds winter in Galway Bay and Strangford Lough.	Mainly surface dwelling fish, taken from shallow dive.	Amber (Nov 2025)	Tern. Summer visitor to all Irish coasts from March to September. Winters in small numbers in Galway Bay and Strangford Lough.
Common tern	Yes. Summer visitor from March to October to all Irish coasts.	Nest colonially on the ground from August to October. Breeds on the coast, with larger colonies in Co. Dublin, Co. Wexford and Co. Galway. Also breeds inland on islets in freshwater lakes, notably in Co. Galway and in Co. Mayo.	No.	Winters in west and south Africa.	Chiefly fish.	Amber (Nov 2025)	Tern. Summer visitor, breeding on inshore islands and undisturbed beaches.

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Whooper swan	No	Open shallow water, by coastal inlets, estuaries and rivers. The population occurring in Ireland breeds in Iceland.	Winter visitor to wetlands throughout Ireland from October to April.	Wetlands, Most on lowland open farmland around inland wetlands, regularly seen while feeding on grasslands and stubble.	Aquatic vegetation, but they are increasingly being recorded grazing on grass in pasture and spilt grain, as well as potatoes from cultivated land.	Amber (Nov 2025)	Swan.
Teal	Yes	They usually nest near small freshwater lakes or pools and small upland streams away from the coast, and also in thick cover. Not known to breed in vicinity of Donegal SPA.	Yes	Widespread on wetlands with good cover, such as reedbeds. Wide variety of habitats, both coastal and inland, and usually below an altitude of 200 metres, including coastal lagoons and estuaries and inland marshes, lakes, ponds and turloughs.	Small seeds predominate, but Enteromorpha sp. and molluscs are also frequently taken. Occasionally feed on chironomid larvae where available, though usually during the summer months. They feed by day where they are safe from shooting.	Amber (Nov 2025)	Duck.

Bird Species	Breeding in Ireland	Breeding Habitat	Wintering in Ireland	Wintering Habitat	Diet	Conservation status	Other Info
Grey heron	Common resident at wetlands, estuaries and along rivers throughout Ireland.	Possible but not confirmed in Donegal Bay. Clutch: 3-4 eggs (rarely 2 broods). Incubation: 27-29 days. Fledging: 50-55 days (Altricial). Age of first breeding: 2 years. Grey Herons breed in large trees and can form large heronries, some of which have been in use for over 100 years.	Yes.	Grey Herons are found in the same wetland habitats during the winter as in the breeding season. Birds breeding in Ireland are thought to be sedentary and birds from Britain and even Scandinavia join our resident population for the winter.	Fish, amphibians, small mammals, insects and reptiles.	Green (Nov 2025)	Grey Heron.
Greenland Whitefronted Goose	No. Breeds in Greenland.	Breeds on lowland tundra, often by lakes and rivers. Nests are widely scattered, though loose colonies may be formed.	Scarce winter visitor to wetlands in Wexford and western Ireland from October to April. Sheskingmore SPA in Donegal.	Winters in Ireland and Scotland. Highly gregarious. Traditionally occurred in peatland areas, though now mostly seen feeding on intensively managed grasslands.	Grazes on a range of plant material taking roots, tubers, shoots and leaves. Grasses, clover, spilt grain, winter wheat and potatoes are popular foods. Forages over peat bogs, dune grassland, and occasionally salt marsh, with the use of agricultural grassland increasing in recent years.	Amber (Nov 2025)	Geese. Medium-sized grey goose, with orange legs, a long orange-yellow bill with a prominent blaze around the base of the bill (adults).High-pitched, musical in quality (not nasal). Usually disyllabic.

Table 1. Information on SCI Birds; Habitat, Diet and Conservation Status

Appendix 5 Anned IV Risk Assessment (including Marine Mammal Risk Assessment)