

APPROPRIATE ASSESSMENT SCREENING REPORT

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

Proposed remedial works at Rathmullan Pier,
Rathmullan, Co. Donegal.

Compiled by:

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For:

Donegal County Council

Piers and Harbours Section

County House

Lifford

Co. Donegal.

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1.0 Introduction

This Screening Report has been prepared by Jessica Devlin for Donegal County Council for the purpose of a planning permission application and foreshore licence application pertaining to proposed remedial works at Rathmullan Pier, Rathmullan, 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. 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 9 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 Ross Hannigan and Cathal Sweeney, Donegal County Council.

Liaison with Ken McGauran, Nicholas O' Dwyer

Site visit and walkover survey on 06 March 2021.

Desk research (list not exhaustive, see section 11 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

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.

Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie

This report has been prepared using the following guidance. A full list of research sources and references can be seen in section 11.

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

Rathmullan Pier, located at Rathmullan on the west of Lough Swilly, is the one of larger piers and harbours owned and maintained by Donegal County Council.

In order to preserve and improve the amenity provided by the pier, Donegal County Council proposes to repair and improve the pier and access viaduct to allow the pier to be utilised to its full potential. A private marina is located to the south of the pier and is accessed via gangway connecting to the viaduct. 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 viaduct.

5.0 Overview of Natura 2000 sites

5.1 Zone of influence

The approach to screening is likely to differ somewhat for plans and projects, depending on scale and on the likely effects and should include any Natura 2000 sites within the likely zone of impact of the plan or project. The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km) (OPR,2021).

In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment.” (NPWS, 2009)

In this case due to the scale and location of the project on the shores of Lough Swilly, Natura 2000 sites within and along the Lough have been included in the zone of influence.

The Natura Sites were then assessed in terms of whether a Source - Pathway - Receptor relationship existed, 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.

The project is in two Natura 2000 sites: Lough Swilly SAC (002287) and Lough Swilly SPA (004075).

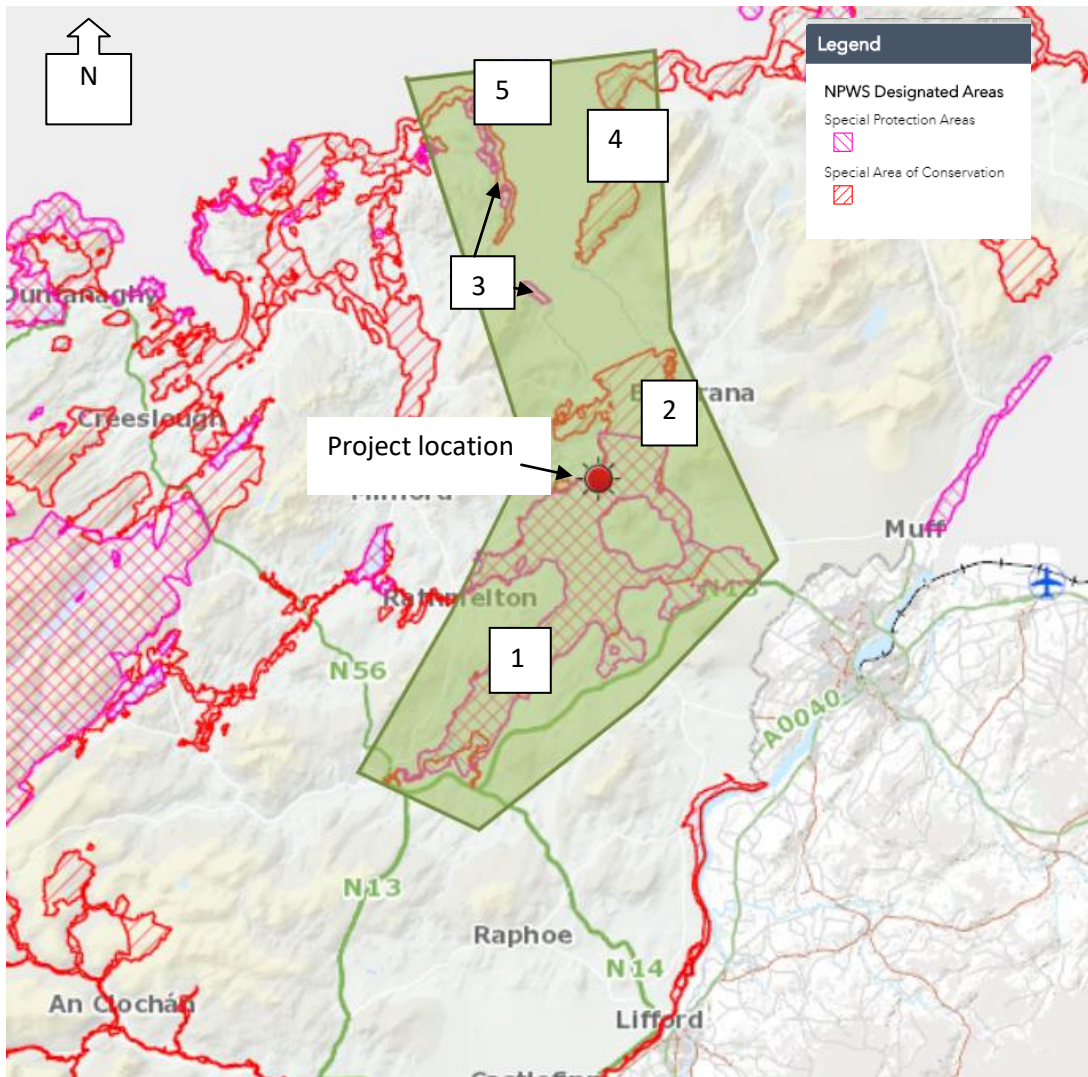


Figure 1. Natura 2000 Sites within and along Lough Swilly. (Map source: www.npws.ie accessed 28 March 2022, © ESRI, © OSI)

Map Ref	Natura 2000 Site / (Site Code) / Distance from project (km)	Source Pathway Receptor Relationship Screened IN/ OUT
1	Lough Swilly SPA (004075) (project within Natura 2000 site) Qualifying Interests: Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Grey Heron (<i>Ardea cinerea</i>) [A028] Whooper Swan (<i>Cygnus cygnus</i>) [A038] Greylag Goose (<i>Anser anser</i>) [A043] Shelduck (<i>Tadorna tadorna</i>) [A048] Wigeon (<i>Anas penelope</i>) [A050] Teal (<i>Anas crecca</i>) [A052] Mallard (<i>Anas platyrhynchos</i>) [A053] Shoveler (<i>Anas clypeata</i>) [A056] Scaup (<i>Aythya marila</i>) [A062] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Coot (<i>Fulica atra</i>) [A125] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Greenshank (<i>Tringa nebularia</i>) [A164] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Sandwich Tern (<i>Sterna sandvicensis</i>) [A191] Common Tern (<i>Sterna hirundo</i>) [A193] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Wetland and Waterbirds [A999]	Direct hydrological, acoustic and visual link with the SPA. Screened IN
2	Lough Swilly SAC (002287) (project within Natura 2000 site) Qualifying Interests: Estuaries [1130] Coastal lagoons [1150] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Lutra lutra (Otter) [1355]	Direct hydrological, acoustic and visual link with the SAC: Estuaries Coastal lagoons Atlantic salt meadows Otter No S - R – P relationship with terrestrial habitats Molinia Meadows and Old Sessile Oak Wood which occur at Inch Island and Carradoan / Rathmullan respectively. Natura 2000 site Screened IN
3	Horn Head to Fanad Head SPA (10km at nearest point) Fulmar (<i>Fulmarus glacialis</i>) [A009] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Barnacle Goose (<i>Branta leucopsis</i>) [A045] Peregrine (<i>Falco peregrinus</i>) [A103] Kittiwake (<i>Rissa tridactyla</i>) [A188] Guillemot (<i>Uria aalge</i>) [A199]	S-P- R relationship not considered to exist due to the distances involved and dilution factor of Lough Swilly. Birds with the exception of the Greenland white fronted Goose are cliff dwelling birds that feed off shore and do not

Map Ref	Natura 2000 Site / (Site Code) / Distance from project (km)	Source Pathway Receptor Relationship Screened IN/ OUT
	Razorbill (<i>Alca torda</i>) [A200] Chough (<i>Pyrrhocorax pyrrhocorax</i>) [A346] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]	frequent the Inner/Middle Lough.
4	North Inishowen Coast SAC (12km at nearest point) Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Machairs (* in Ireland) [21A0] European dry heaths [4030] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Lutra lutra (Otter) [1355]	S-P- R relationship not considered to exist due to the distances involved and dilution factor of Lough Swilly and the nature of the QI's.
5	Ballyhoorisky Point to Fanad Head SAC (14km to nearest point) Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Najas flexilis (Slender Naiad) [1833]	S-P- R relationship not considered to exist due to the distances involved and dilution factor of Lough Swilly and the nature of the QI's.

Table 1. Initial screening of Natura 2000 sites within and along Lough Swilly.

Special Areas of Conservation (SAC) with potential for significant effects	Special Protected Areas (SPA) with potential for significant effects
Lough Swilly SAC (002287)	Lough Swilly SPA (004075)

Table 2. Summary of Natura 2000 sites screened in for further assessment.

5.2 Summary of Natura 2000 sites

Detailed site synopses can be seen in appendix 1.

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.

Qualifying Interests:

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

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 Bunrana. 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

Qualifying Interests:

- Estuaries [1130]
- Coastal lagoons* [1150]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330]
- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinia caerulea*) [6410]
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
- *Lutra lutra* (Otter) [1355]

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 for Lough Swilly SPA

To maintain the favourable conservation condition of Great Crested Grebe (*Podiceps cristatus*), Grey Heron (*Ardea cinerea*), Whooper Swan (*Cygnus cygnus*), Greylag Goose (*Anser anser*), Shelduck (*Tadorna tadorna*), Wigeon (*Anas penelope*), Teal (*Anas crecca*), Mallard (*Anas platyrhynchos*), Shoveler (*Anas clypeata*), Scaup (*Aythya marila*), Goldeneye (*Bucephala clangula*), Red-breasted Merganser (*Mergus serrator*), Coot (*Fulica atra*), Oystercatcher (*Haematopus ostralegus*), Knot (*Calidris canutus*), Dunlin (*Calidris alpina*), Curlew (*Numenius arquata*), Redshank (*Tringa totanus*), Greenshank (*Tringa nebularia*), Black-headed Gull (*Chroicocephalus ridibundus*), Common Gull (*Larus canus*), Sandwich Tern (*Sterna sandvicensis*), Common Tern (*Sterna hirundo*), Greenland White-fronted Goose (*Anser albifrons flavirostris*) and Wetland and Waterbirds in Lough Swilly SPA.

5.3.2 Conservation objectives for Lough Swilly SAC

- To maintain the favourable conservation condition of Estuaries
- To restore the favourable conservation condition of Lagoons
- To restore the favourable conservation condition of Atlantic salt meadows
- To restore the favourable conservation condition of Otter
- To restore the favourable conservation condition of Old oak woodland with Ilex and Blechnum.

5.4 Land use and activities in the area

Rathmullan is a small village. It is situated on the western side 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. A private marina is located to the south of the pier and is accessed via gangway connecting to the viaduct. A roll on roll off ferry service between Rathmullan and Bunrana operates during the summer months from the slipway to the immediate north of the viaduct. A sailings school operates from the pier and beach and the site is very popular with walkers and anglers.

5.5 Other plans/projects:

County Donegal Development Plan 2018- 2024: Policy NH-P-1 of the *County Donegal Development Plan 2018-2024* States the following:

“It is a policy of the Council to ensure that development proposals do not damage or destroy any sites of international or national importance, designated for their wildlife/habitat significance in accordance with European and National legislation including: SACs, Special SPAs, NHAs, Ramsar Sites and Statutory Nature Reserves”

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.

At the time of writing there were no live planning applications pending within the immediate vicinity of the project. Previous applications granted in the past decade include extensions and modifications to existing buildings and fencing.

Donegal County Council in partnership with Rathmullan-The Way Forward CLG is proposing a Rathmullan Heritage Led Regeneration Project in the village. This is currently at draft stage and public consultation was underway at the time of writing.

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.”

5.5.5 Foreshore Act as amended

An act to make provision for the granting of leases and licences in respect of foreshore belonging to Saorstát Eireann and to amend generally the Law relating to foreshore and the seashore.

6.0 Site description (Fossitt description in brackets)

The site was visited at low tide, in sunny conditions on the 6th March 2022. The project site is located at and existing pier and viaduct (CC1 Sea walls piers and jetties). The pier head is accessed by a viaduct approximately 120m in length. The pier head provides 343m of berthing with a depth of water of 7.9m at low water. A private marina is located to the south of the pier and is accessed via gangway connecting to the viaduct. A roll on roll off ferry service between Rathmullan and Bunrana operates during the summer months from the slipway to the immediate north of the viaduct (see plate 1.).

The project site lies just within the middle lough between Inch Island and Dunree Head. The immediate and wider area around the pier is sand shores (LS2 Sand Shores) with some shell

fragments and seaweed present along the tide line (see plate 2). The wide sandy beach of Rathmullan and the Kinnegar are to the North.

The concrete columns are covered in a 100% layer of marine growth, with hard growth including barnacles and mussels within the tidal zone and a heavy covering of soft marine growth in the fully submerged zone (Norfolk Marine, 2021).

There is a significant amount of debris underneath the pier, largely from the fishing / aquaculture activities. The bed is generally coarse sand / shale and is firm (Norfolk Marine, 2021). Landward on the southern side is dominated by a sea wall, with the Battery overlooking the Lough to the South. Sandy shores continue along the southern coast, with shells becoming for frequent.



Plate 1. Looking north. View from ferry slipway



Plate 2. Looking east from under /beside the pier to the south.



Plate 3. Looking west, southern side of the pier looking towards the village.

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:

The transitional waters of the Swilly estuary is **at risk** of not meeting its WFD objectives by 2027 (www.catchments.ie, 2022). This classification reaches as far as Rathmullan, where it changes to not at risk.

7.0 Detailed project proposals as supplied by Donegal County Council

A condition report was carried out by Nicholas O' Dwyer Ltd. on behalf of Donegal County Council in September 2021.

The works proposed are:

- Complete replacement of the Viaduct deck with a new deck of precast bridge beams.
- Repair of the Viaduct cross beams.
- Strengthening of the Pier deck by inserting a new beam between each pair of main beams.
- Repair of main beams in the Pier deck.
- Repair of the substructure of the Pier and Viaduct (columns and bracing).
- New fenders and ladders to the Pier.

Nicholas O'Dwyer Ltd. has been recently appointed by Donegal Co Co as the Engineers for the refurbishment of Rathmullan Pier. Further information was provided by DCC and Nicholas O'Dwyer describing how works will be implemented.

Methodology for Rathmullan Viaduct and Pier Head Repair

Summary

Pier Layout can be seen in figure 2. The repair and removal of the pier head and viaduct will most likely be over a period of up to 3 months as follows:

In order to protect the existing support structure high impact activities such as piling, breaking and blasting are not suitable. In-water works are also not proposed.

Working back from the pier head for each of the spans: The decking will be removed and the new bridge beams and concrete surface installed. This will be done for each span before moving to the next span. This will reduce the extent of protection platform and minimise possible damage to the new structure. . Main deck beams will be sawn using diamond wire sawing and craned off site. The main deck beams will be replaced, using precast concrete units placed on the repaired support structure.

Rathmullan Viaduct and Pier head Repair: Water Management

The works proposed at Rathmullan will include the following:

Site clearance and compound set up see site layout figure 3.

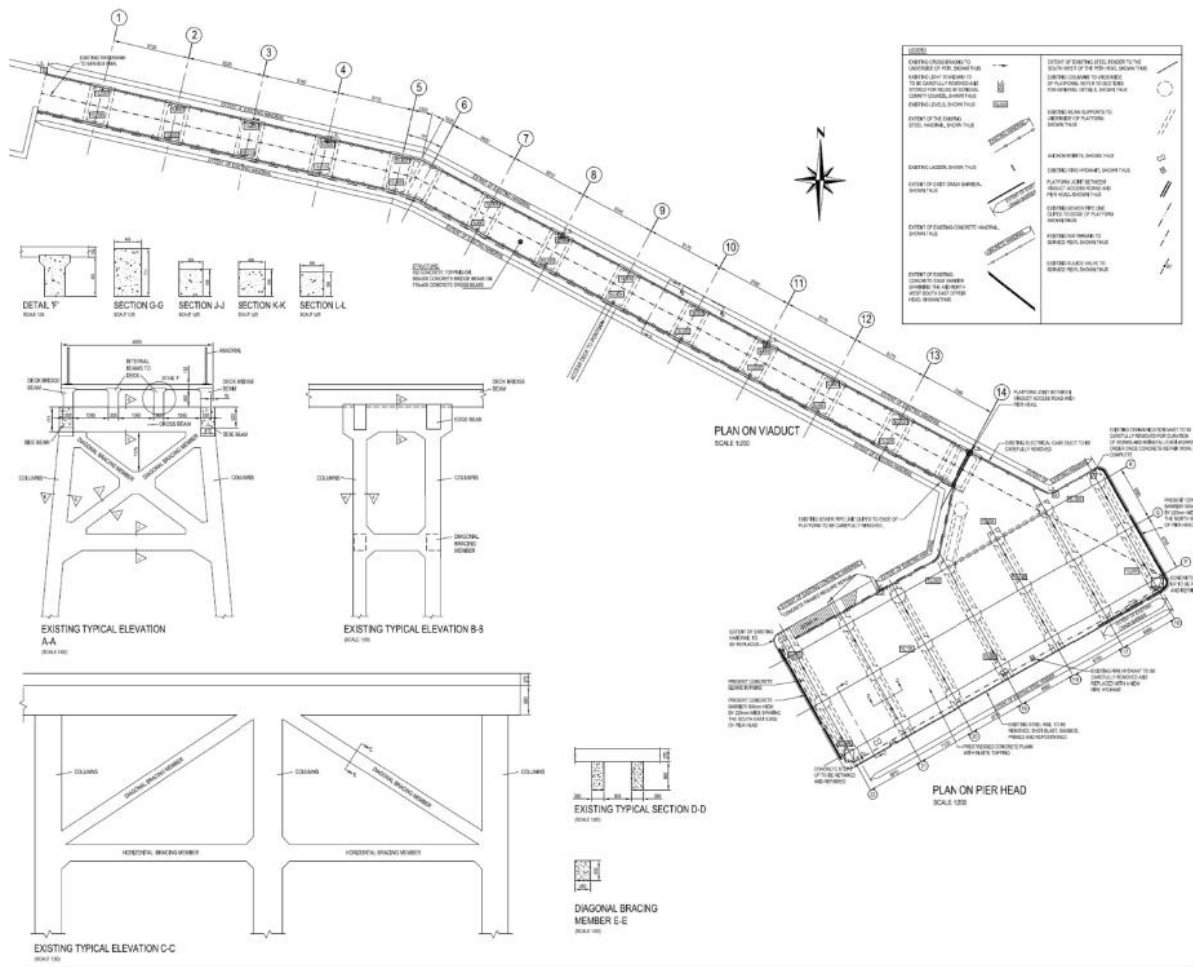


Figure 2. Pier Layout Extract from Rathmullan Pier Condition Report (Nicholas O' Dwyer Ltd. 2021)

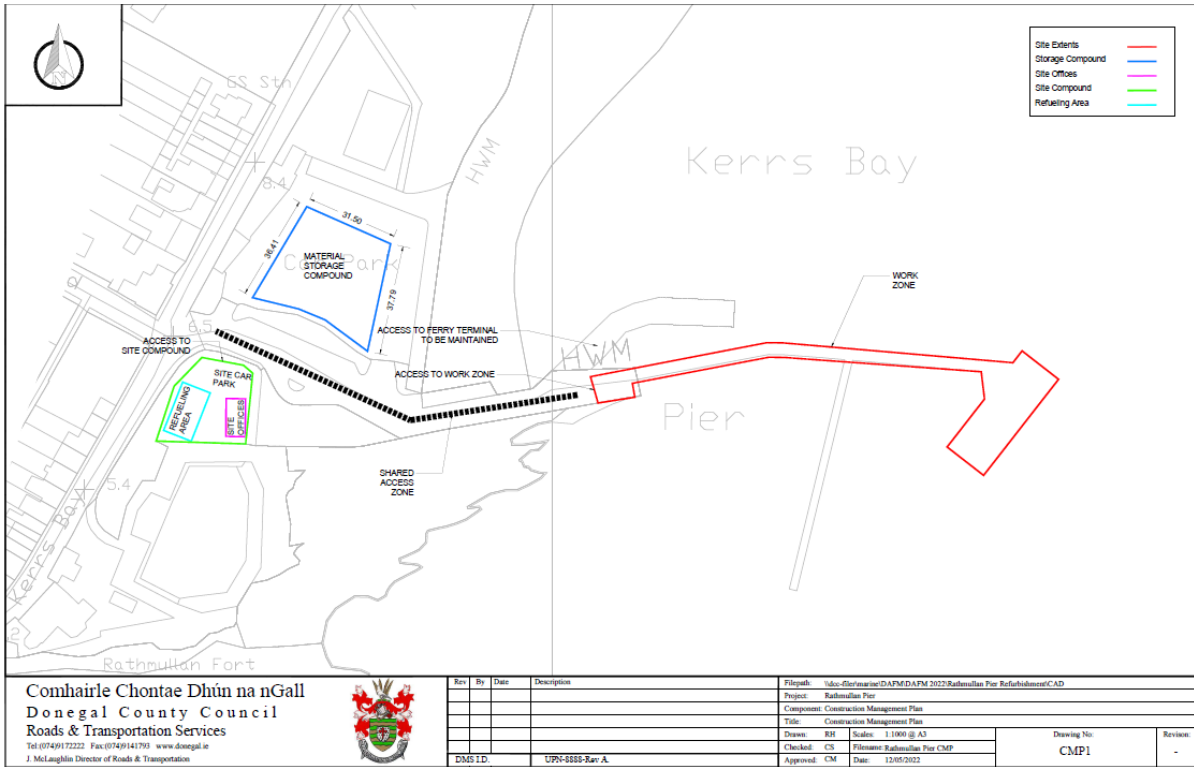


Figure 3. Site layout – construction management as supplied by Donegal County Council.

Scaffolding of the viaduct inclusive of full surround encapsulation to contain debris from demolition process. The scaffolding maybe utilized in phases along the length of the viaduct at the locations for the works.

Main deck beams will be sawn using diamond wire sawing and craned off site with recovery of water from cutting process being treated similarly to that for insitu repairs.

Installation of precast concrete tee beams spanning between the existing concrete piers which will be installed using a crane.

Pouring of concrete screed and upstand beams on top of the precast tee beams. Joints between tee beams will be sealed to prevent seepage of concrete at the joints.

Installation of handrails and barriers to the top of upstands.

Power washing the bridge with clean water prior to concrete repairs.

Water management provision in line with environmental requirements.

Hydro demolition services to identified repair areas.

Wet blast cleaning the steel to SA2 and applied Nitoprime Zincrich Plus (anti-corrosion primer) to exposed steel reinforcement.

Steel repairs to any defective reinforcement identified.

Application of hand applied concrete mortar to specific repair areas using a cementitious rapid setting concrete repair product such as Sika Monotop 630 or Renderoc rapid set mortar.

Rapid setting mortar repairs will be done by hand with a trowel to include patches of repairs to the supporting columns and then the whole of the support structure protected with a product which will also be applied by hand.

Rendering the entire bridge surface with anti-carbonation coating using Fosroc Renderoc ST05 which will be applied by hand.

Provision of pontoon and safety boat for site operations.

Scaffolding setup

The scaffold will be erected to suspend under the bridge itself to gain access to all the areas for concrete repair works, see figure43.. The scaffold will be designed to ensure no release of defective concrete or cementitious material from the hydro-demolition process, either directly or indirectly through untreated surface water run-off, during the construction phase into Lough Swilly.

The working platform will be double boarded using plastic boards. Plastic sheeting (polythene 1000 gauge) will be installed between the plastic boards with the working platform falling towards mortar tubs located at the centre of each span of scaffold. This will ensure all runoff from the hydro demolition process will enter the mortar tubs. The entire scaffold will be sheeted with monoplex to prevent any debris arising from entering the lough.

The water will be captured in the mortar tubs and pumped to a silt buster. The water will be put through our silt buster unit where it will be treated to remove all silt particles. The water will then be discharged out of the unit onto a tanker located at the entrance to the pier for removal to a licensed facility.

After every shift the scaffold will be cleaned to remove all concrete new and old. This will be disposed into shoots located on the scaffold into the site skip. The skip will be disposed of appropriately by a licensed skip company.

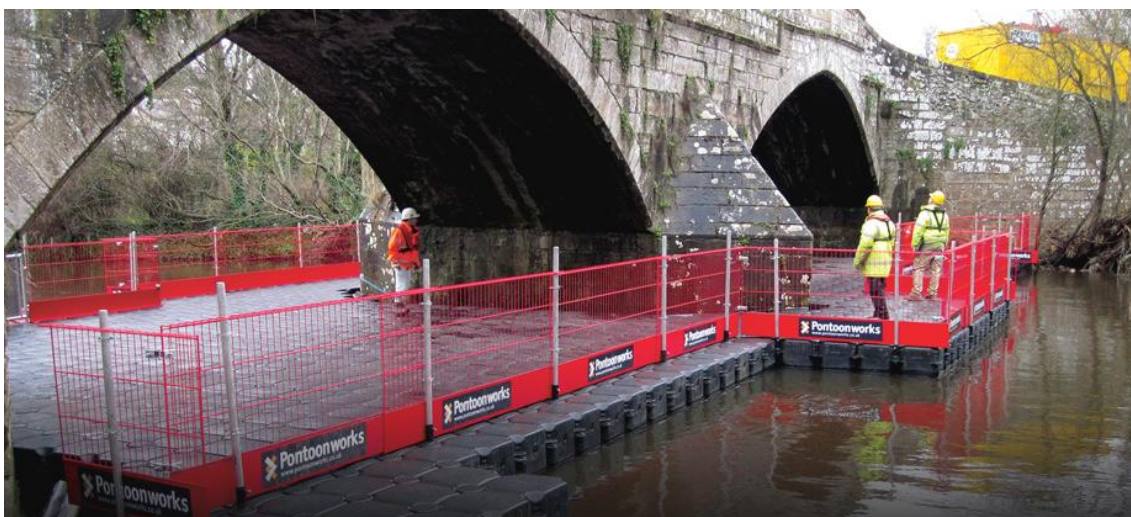


Figure 4. Example of working platform (image courtesy of Donegal County Council).

Management of boat traffic

Signage will be installed around the pier and scaffolded area in order to direct boat traffic away from the works.

In order to mitigate against boat users missing these signs while navigating in poor light (fog/mist) and possibly also at night, additional lighting will be installed on the scaffold and below the deck of the viaduct.

Refuelling and storage of machinery

To comply with environmental requirements, all refueling of plant and equipment will be carried out in the site compound near the entrance to the viaduct. Two spill kits will be available on site and to hand during all refuelling. A detailed construction and environmental plan will be developed on appointment of the contractor.

Plant machinery will not be permitted to enter the water of Lough Swilly at any time during the works. Appropriate biosecurity measures will be employed for any scaffolding poles protruding into the sea below the works area. An emergency boat will also be available and accessible from the scaffold at all times for the duration of the works.

Timing of works

Works will be carried out in late Spring and Summer months (end March – September) when conditions are optimal (estimated duration of works up to 3 months).

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

Table 3 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	Remedial works at Rathmullan Pier (existing structure)	No impact.
Land take	Remedial works at Rathmullan Pier (existing structure)	No impact.
Distance from the Natura 2000 site or key features of the site	Within Lough Swilly SAC and Lough Swilly SPA	Direct and Indirect impacts possible: Pollution during construction works. Disturbance QI species. Potential effects on: Estuaries [1130], Coastal lagoons* [1150], <i>Lutra lutra</i> (Otter) [1355], Wetlands and QI waterbirds.
Resource requirements (water abstraction etc.)	No resource requirement.	No impact.
Emissions (disposal to land, water, or air)	Inadvertent release of pollutants during works possible. For example: Runoff and debris from the site and excavated material; Dust from construction; Concrete pouring Leakages from machinery/storage containers; Noise and vibration emissions during construction.	Direct and Indirect impacts possible : Pollution during construction works Noise and vibration disturbance Potential effects on: Estuaries [1130], Coastal lagoons* [1150], [1330], [6410], <i>Lutra lutra</i> (Otter) [1355], Wetlands and QI waterbirds
Excavation requirements	Sawing out existing concrete and removal off site.	
Transportation requirements	Excavators, concrete pumps, crane, tipper lorry. Staff /labourers.	
Duration of construction, operation etc.	Short term project c. 3 months during spring / summer 2023 when conditions are best, project end Nov 2023 due to funding requirements. Permanent fixture.	Timing of works important due to wintering and breeding birds in the SPA. Potential to effect QI waterbirds in SPA. Once works are complete there will be no change in operational activity/use at the site.

Table 3. Project activity and the potential direct, indirect and cumulative impacts it may have.

9.0 Assessment of significance

As discussed in section 8, the threats of construction-related runoff and pollutants, and noise and vibration 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.

Table 4 explores further the likely significance of the project and the potential impacts identified, in terms of 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:

Natura 2000 site & 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
Lough Swilly SPA (004075): Wetland and QI Waterbirds	<p>Direct loss of habitat There will be no direct loss of habitat within the Natura 2000 sites.</p>	No impact. No potential for significant effects.
Lough Swilly SAC (002287): Estuaries [1130] Coastal lagoons* [1150] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] <i>Lutra lutra</i> (Otter) [1355]	<p>Indirect loss of habitat: A species may stop using a habitat due to increased disturbance or habitat degradation on site.</p> <p>Habitat degradation due to hydrological impacts via surface water. Marine habitats surrounding the proposed development site are potentially at risk from hydrological impacts arising from construction. Water pollution is not permissible regardless of conservation designation status.</p> <p>Water quality: The demolition and construction period of the proposed development could (if done incorrectly) result in physical pollution of the Lough from suspended sediments or fuel spills from site run off entering Lough Swilly. This in turn could negatively impact on some QIs of the SAC and the SCI's of the SPA, as the integrity of these features is linked to water quality.</p> <p>However, specialist contractors with experience in working in marine environments will be appointed to implement works. The methodology proposed details the necessary equipment required to gain access to the pier to implement works. Integrated into this equipment are mechanisms to deal with waste and runoff from the works including scaffolding set up, surface water capture and treatment. The risk of runoff or pollution from works is reduced by the scale of works. The works will be carried out span by span along the Pier, reducing the quantities of materials</p>	No impact. No potential for significant effect on: Wetland and QI Waterbirds Estuaries [1130] Coastal lagoons* [1150] <i>Lutra lutra</i> (Otter) [1355] Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]

Natura 2000 site & 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>required. This coupled with the fact that all repair materials i.e. rapid dry mortar and render surfaces, will be applied by hand shows a very controlled and methodical repair procedure. Precast concrete will be used to replace deck beams. And all join areas will be sealed when pouring screed.</p> <p>The compound and storage areas are set well back from the pier. The storage area is an existing car park, with an impermeable surface, surrounded by a stone wall which provides bunding, with the exception of entry/exit points which can be easily secured. Standard site management is sufficient to negate any risks.</p> <p>The methodology as presented does not pose a threat to the marine environment, environmental protection measures therein would be expected of a project in the marine environment regardless of protection status, and is in keeping with the Water framework Directive. Operation at the site will not change.</p>	
	<p>Disturbance / Displacement: Noise and vibration: Demolition and construction-related disturbance and displacement of QI and SCI species could potentially occur within the vicinity of the proposed development.</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, see appendix 2. IWeBS is a volunteer survey carried out across the Ireland aimed at estimating population size, species distribution and trends of non-breeding/wintering water birds. The area near the project site falls within an IWeBS subsite named Rathmullan 0A491. IWeBS data shows 14 of the 24 species for which the site is designated, occur at Rathmullan within the subsite 0A491. Generally the numbers are low across all species. Nationally important numbers of Red breasted Merganser (SCI) were recorded only once over the past 5 years in 2018/2019 survey season. Great Northern Diver (Annex I species) was recorded once in Nationally important numbers in 2017/2018 and Black headed Gull (SCI and red listed) was recorded in relatively high numbers in 2017/2018 survey season also, see appendix 2. According to SPA Supporting documentation (NPWS 2011b) the area</p>	<p>No impact No potential for significant effect on: Wetland and QI Waterbirds Estuaries [1130] Coastal lagoons* [1150] <i>Lutra lutra</i> (Otter) [1355] Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>) [6410] Old sessile oak woods with Ilex and Blechnum in the British Isles</p>

Natura 2000 site & 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>around Rathmullan Pier has known foraging and roosting sites for wintering birds.</p> <p>Timing of works is proposed for the spring / summer months, when conditions are optimal, in terms of temperature for repair materials and weather /sea conditions in the marine environment. Proposed timing therefore removes any potential impact to wintering waterfowl.</p> <p>Black Headed Gull and Sandwich Tern have been recorded in Rathmullan during the winter and summer months.</p> <p>These are Special Conservations Interest Species (breeding) in the SPA.</p> <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, 2022). 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 and Sandwich Tern are known to breed on the eastern side of Inch Island and in Blanket Nook (Johnston, 2011), some 5Km and 8 km away respectively.</p> <p>For waterbirds, construction-related disturbance effects would not be expected to extend beyond a distance of c. 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance (Cutts <i>et al.</i>, 2009).</p> <p>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, which were recorded in high numbers, would be impacted significantly.</p> <p>Ability to utilise alternative habitats refers to the species ability to utilise other habitats adjacent to the site. 1 = wide-ranging species with requirement to utilise the site as and when required. Red Breasted Merganser has the ability to use alternative habitats scoring 1.; (NPWS, 2011). Also it was only recorded once in the last 5 years in high numbers, with counts in single figures in other years.</p>	[91A0]

Natura 2000 site & 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>Great Northern Divers occur along a variety of coastlines, particularly deeper bays and inlets, as well as shallow bays with sandy shores. They can forage up to 10 km offshore and numbers close to shore tend to be highest when winds blow onshore (Birdwatch Ireland, 2022). Though not assessed specifically in NPWS research in Lough Swilly; Great Northern Diver has also scored 1 in its ability to use alternative habitats at other SPA sites where it is a SCI species (NPWS, 2014).</p> <p>This coupled with the expanse of Lough Swilly (see appendix 2, fig 2.) means that there is ample habitat remaining for both Red Breasted Merganser and Great Northern Diver.</p> <p>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. Works will not occur during the night therefore any potential roosting sites will not be disturbed.</p> <p>All other water bird species recorded are significantly below 1% national numbers, temporary effects of the project (if any) are unlikely to affect the conservation status of those species.</p> <p>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 construction, 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. There were no signs of Otter in the vicinity of the Pier or within a 250m radius of the site.</p> <p>Operation Once repairs are complete activity at the pier will return to current levels. There will be no change in use at the site.</p>	
	<p>Habitat or Species fragmentation Existing structure, no habitat fragmentation.</p>	<p>No potential for significant effects.</p>

Natura 2000 site & 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>Reduction in Species Density Degradation of habitat due to hydrological impacts, noise and vibration could result in displacement of species from feeding, resting and breeding areas, or mortality in the case of a pollution incident, ultimately causing a reduction in species density.</p> <p>It has been demonstrated in the discussion above in terms of hydrological impacts and displacement or disturbance to feeding, resting and breeding areas there is no potential for a significant impact either during construction or operation.</p>	<p>No Impact. No potential for significant effects.</p>
	<p>In combination: There are no other planning applications pending at the time of writing. Donegal County Council in partnership with Rathmullan-The Way Forward CLG is proposing a Rathmullan Heritage Led Regeneration Project in the village. This is currently at draft stage and public consultation was underway at the time of writing.</p> <p>This and any other future projects will be subject to Appropriate Assessment.</p>	<p>No cumulative effects anticipated.</p>

Table 4 . Likely significance of impacts.

9.2 Cumulative Impacts

The potential for cumulative impacts to arise from the project proposal is regulated and controlled by the environmental policies and objectives of the Donegal County Council; policy NH-P-1 of the *County Donegal Development Plan 2018-2024* states the following:

“It is a policy of the Council to ensure that development proposals do not damage or destroy any sites of international or national importance, designated for their wildlife/habitat significance in accordance with European and National legislation including: SACs, Special SPAs, NHAs, Ramsar Sites and Statutory Nature Reserves”

Any existing/proposed plan or project that could potentially affect Natura 2000 sites, in combination with the proposed development, must adhere to the overarching environmental policies of the County Development Plan and Local Area Plans. These policies will ensure the protection of the Natura 2000 sites within the zone of influence of the proposed project and include the requirement for any future plans or projects to undergo Screening for Appropriate Assessment and/or Appropriate Assessment (NIS) to examine and assess their effects on Natura 2000 sites, alone and in combination with other plans and projects.

Donegal County Council in partnership with Rathmullan-The Way Forward CLG is proposing a Rathmullan Heritage Led Regeneration Project in the village. This is currently at draft stage and public consultation was underway at the time of writing. This and any other future projects will be subject to Appropriate Assessment.

It has been demonstrated that there is no potential for significant effects on any Natura site, therefore cumulative effects are unlikely.

10.0 Conclusion

Donegal County Council is applying for a Foreshore Licence to implement remedial works on the Pier and viaduct at Rathmullan, Co. Donegal. Natura 2000 sites within the zone of influence of the project were assessed. The project is within Lough Swilly SAC (002287) and Lough Swilly SPA (004075). A site visit was carried out on 06 March 2022 and a desk study completed using existing available data for the site.

The project proposal has been assessed in terms of the likely impacts the proposal may have on the Natura 2000 sites in the area. The significance of impacts identified (if any) has been determined. It has been determined that the project and methodology proposed does not pose a risk to the Marine environment, Lough Swilly SAC (002287) or Lough Swilly SPA (4075).

This report presents a Stage 1 Appropriate Assessment Screening outlining the information required for the competent authority to screen for appropriate assessment and to determine whether or not the project, either alone or in combination with other plans and projects, in view of best scientific knowledge, is likely to have a significant effect on any Natura 2000 site.

The Competent Authority has been provided with information to conduct a Stage 1 Screening for Appropriate Assessment and consider whether, in view of best scientific knowledge and in view of the conservation objectives of the relevant Natura 2000 sites, the Project, individually or in combination with other plans or projects is likely to have a significant effect on any Natura 2000 site.

It can be objectively concluded that there is no possibility of significant impacts on any Natura 2000 site, their features of interest and site specific conservation objectives.

Stage 2 of the Appropriate Assessment process (Natura Impact Statement) is not required.

11.0 References and sources

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

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www.gsi.ie

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Appendix 1 Natura 2000 Site Synopses

Site Name: 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 Bunrana. Lough Swilly is a long sea lough, cutting through a variety of metamorphic rocks on the west side of Inishowen. The main rivers flowing into the site are the Swilly, Lennan and Crana. At low tide, extensive sand and mudflats are exposed, especially at the mouths of the Swilly and Lennan rivers. The site is estuarine in character, with shallow water and intertidal sand and mudflats being the dominant habitats.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1130] Estuaries

[1150] Coastal Lagoons*

[1330] Atlantic Salt Meadows

[6410] *Molinia* Meadows

[91A0] Old Oak Woodlands

[1355] Otter (*Lutra lutra*)

Ecological communities present in the intertidal sediments at Lough Swilly SAC include fine sand community complexes, intertidal mixed sediment communities with polychaetes, subtidal mixed sediment communities with polychaetes and bivalves, muddy fine sand communities with *Thyasira flexuosa*, muddy community complexes and *Ostrea edulis* dominated communities. Bivalves and polychaete worms are well represented in the macro-invertebrate fauna, with species such as Cockles (*Cerastoderma edule*), Mussels (*Mytilus edulis*), Baltic Tellin (*Macoma balthica*), Ragworm (*Nereis diversicolor*) and Sand Mason (*Lanice conchilega*) being common. Common Cord-grass (*Spartina anglica*) is well established on parts of the intertidal flats. The shoreline above the flats varies from bedrock shore to shingle or cobbles, and here is found a scattering of salt tolerant plants such as Common Scurvygrass (*Cochlearia officinalis*), Sea-milkwort (*Glaux maritima*) and Red Fescue (*Festuca rubra*).

Saltmarshes are well represented in the inner sheltered areas of the site, with good examples in the Ramelton area. The marshes are the Atlantic salt meadow type, and are characterised by such species as Thrift (*Armeria maritima*), Sea-milkwort, Sea Aster (*Aster tripolium*), Sea Arrowgrass (*Triglochin maritima*) and Red Fescue.

Lakes which are lagoonal in character occur at Inch and Blanket Nook. Inch Lough is a good example of a large, shallow lagoon with very low salinity in most of the lagoon. Less information is available for Blanket Nook but it is of a higher salinity and adds to the richness of the habitat within the site as a whole. The vegetation in Inch is diverse and typically lagoonal, with well-developed charophyte

communities, including a large population of *Chara canescens* (a Red Data Book species). It also supports Horned Pondweed (*Zannichellia palustris*) and a mixed Pondweed/ Tassleweed community (*Potamogeton pectinatus/Ruppia maritima*). The green alga *Chaetomorpha linum* occurs at Blanket Nook. The aquatic fauna at Inch is rich and diverse and includes a range of lagoonal specialists and species that are apparently rare. These include *Lekanesphaera hookeri* (Order Isopoda), *Palaemonetes varians* (Order Decapoda), *Conopeum seurati* (a bryozoan), *Sigara stagnalis* (Order Hemiptera), *S. concinna* (Order Hemiptera), *Jaera nordmanni* (Order Isopoda), *Neomysis integer* (Order Mysida) and *Cordylophora caspia* (a hydrozoan). Less information is available on the aquatic fauna at Blanket Nook, though several lagoonal specialists have been recorded, including *Jaera ischiosetosa* (Order Isopoda), which appears to be a rare species in Ireland. Inch Lough is regarded as being of significant conservation value for ecotonal Coleoptera, with several species indicative of well-developed shoreline habitats including two that are apparently rare: *Bembidion bipunctatum*, a halo-tolerant shore species, and *Bembidion aeneum*, a stenotopic halobiont species. Although artificial in origin, the lagoon habitat in this site is one of the largest and best examples of a shallow, low salinity lagoon habitat in the country.

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 Rathmullen and Carradoan Woods, the former being a Nature Reserve. They are dominated by Sessile Oak (*Quercus petraea*) and Downy Birch (*Betula pubescens*), but many other species are present including exotics such as Beech (*Fagus sylvatica*). Alder (*Alnus glutinosa*) and willows (*Salix* spp.) occur in the wetter parts. An area of wet heath, dominated by Heather (*Calluna vulgaris*), occurs on the hill above Carradoran Wood. These woodlands display a generally intact structure and support a range of breeding birds, including Woodcock.

A further area of woodland, scrub and heath occurs above the north-east shore at Crockacashel and at Porthaw. Oak/Hazel (*Corylus avellana*) scrub is frequent, and there is a well-developed ground flora with species such as Wood-sorrel (*Oxalis acetosella*), Herb-Robert (*Geranium robertianum*), Lady-fern (*Athyrium filix-femina*) and Broad Buckler Fern (*Dryopteris dilatata*). The heath vegetation includes Heather, Gorse (*Ulex europaeus*), Wood Sage (*Teucrium scorodonia*) and Tormentil (*Potentilla erecta*). In the wetter areas, Purple Moor-grass (*Molinia caerulea*) and Cross-leaved Heath (*Erica tetralix*) occur.

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

Lough Swilly is an important site for waterfowl in autumn and winter. The shallow waters provide suitable habitat for grebes and diving duck, while the intertidal flats are used by an excellent diversity of wildfowl and waders. At high tide, the duck and wader species roost on the saltmarshes and shorelines, with some species moving to the adjacent pasture and arable fields. In the three winters 1994/95 to 1996/97, 16 species occurred in nationally important numbers as follows (figures are average maximum counts for the 3 winters): Great Crested Grebe (274), Shelduck (646), Wigeon (1,673), Teal (1,381), Mallard (1,155), Shoveler (58), Scaup (143), Goldeneye (169), Red-breasted Merganser (103), Coot (335), Oystercatcher (1,459), Knot (327), Dunlin (7,995), Curlew (1,716), Redshank (1,080) and Greenshank (30). Other species which occur in regionally or locally important numbers, and at times may exceed the threshold for national importance, include Brent Goose,

Pochard, Tufted Duck, Lapwing, Ringed Plover, Grey Plover, Bar-tailed Godwit and Turnstone. The site is also an important area for the Great Northern Diver and the rare Slavonian Grebe.

The adjacent pasture and arable polders at Inch, Big Isle and Blanket Nook support internationally important populations of Whooper Swans, Greenland White-fronted Goose and Greylag Goose. Inch Lough is an important roosting area for these birds and at times they utilise other parts of Lough Swilly for roosting.

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

Version date: 19.02.2016

SITE NAME: 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 Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels – these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide - both estuaries and sand/mud flats are listed on Annex I of the E.U. Habitats Directive. Other habitats represented in the site are salt marshes, lagoons (at Inch Lough and Blanket Nook), rivers and streams, sand and shingle beaches, lowland wet and dry grasslands, drainage ditches, reedbeds and scrub. Inch Lough, whilst artificial in origin, is one of the largest and best examples of a shallow, low salinity lagoon in the country; it supports what is probably the largest population in the country of the Red-listed charophyte *Chara canescens*. A small sandy island, used by nesting terns, swans and gulls, occurs in the southern part of the lagoon.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Crested Grebe, Grey Heron, Whooper Swan, Greenland White-fronted Goose, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Shoveler, Scaup, Goldeneye, Red-breasted Merganser, Coot, Oystercatcher, Knot, Dunlin, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Sandwich Tern and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The 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.

Lough Swilly SPA supports internationally important numbers of Whooper Swan (1,673 - mean peak for the five winters 1995/96-1999/2000), Greenland White-fronted Goose (847 for the Lough Swilly flock - mean peak for the five winters 1994/95-1998/99) and Greylag Goose (1,218 - mean peak for the five winters 1995/96-1999/2000). The main areas of the site used by these species are at Big Isle, Farsetmore, Blanket Nook, Ballylawn and Inch Levels. The flock sizes for Whooper Swan and Greylag Goose are the highest in the country. Considerably higher numbers of Whooper Swan (peak of 1,946) have been recorded, especially early in the season, as this is the area where the swans make their Irish landfall in autumn on their return from breeding grounds in Iceland. Both Greenland White-fronted Goose and Whooper Swan are listed on Annex I of the E.U. Birds Directive.

The site includes nationally important populations of 18 wintering waterbird species as follows (all figures are mean peaks for the five winters 1995/96-1999/00): Great Crested Grebe (284), Grey Heron (57), Shelduck (772), Wigeon (1,580), Teal (1,581), Mallard (1,169), Shoveler (60), Scaup (103), Goldeneye (170), Red-breasted Merganser (127), Coot (514), Oystercatcher (1,595), Knot (303), Dunlin (7,285), Curlew (1,720), Redshank (1,404), Greenshank (48) and Common Gull (1,523). Other species which occur include Light-bellied Brent Goose (152), Pochard (102), Golden Plover (749), Lapwing (1,408), Ringed Plover (81), Grey Plover (15), Bar-tailed Godwit (139) and Turnstone (73). The site is an important area for Great Northern Diver (19) and the rare Slavonian Grebe (11). The rare winter visitor, Pink-footed Goose, also occurs (15). Nationally important numbers of Mute Swan (265) also use the site.

The small island in Inch Lough supports the largest tern colony in the north-west, with nationally important populations of Sandwich Tern (258 pairs in 2001) and Common Tern (89 pairs in 2001) occurring. These two species are listed on Annex I of the E.U. Birds Directive. There is also a nationally important colony of Black-headed Gull (800 pairs in 2001), which represents one of the largest populations in the country.

Several species of duck breed on Inch Lough, most notably Tufted Duck, with an estimate of between 100 and 200 pairs occurring in 1997. 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 (estimate of 50 pairs in the 1990s).

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.

8.7.2014

Appendix 2 I- Webs Data for Rathmullan Subsite 0A491

Natura Site Lough Swilly SPA (4075)

SubSite - Code	Subsite	TaxonomyIO C	SpeciesName	LatinNameIOC	1% National	1% Internationa l	2015/1 6	2016/1 7	2017/1 8	2018/1 9	2020/2 1
0A491	Rathmullan	270	Light-bellied Brent Goose	Branta bernicla hrota	350	400	13	26	13	27	
0A491	Rathmullan	323	Whooper Swan	Cygnus cygnus	150	340			4	1	
0A491	Rathmullan	457	Mallard	Anas platyrhynchos	280	53000	5	9		5	
0A491	Rathmullan	528	Eider	Somateria mollissima	55	9800	5		40	16	10
0A491	Rathmullan	550	Goldeneye	Bucephala clangula	40	11400	2			3	
0A491	Rathmullan	565	Red-breasted Merganser	Mergus serrator	25	860	2		3	91	
0A491	Rathmullan	5411	Great Crested Grebe	Podiceps cristatus	30	6300	13	2	4	5	
0A491	Rathmullan	5415	Slavonian Grebe	Podiceps auritus						2	
0A491	Rathmullan	5562	Oystercatcher	Haematopus ostralegus	610	8200	130	53	73	65	29
0A491	Rathmullan	5589	Avocet	Recurvirostra avosetta			1	1			
0A491	Rathmullan	5595	Lapwing	Vanellus vanellus	850	72300		1			
0A491	Rathmullan	5657	Ringed Plover	Charadrius hiaticula	120	540	5	22	43	15	4
0A491	Rathmullan	5806	Curlew	Numenius arquata	350	7600	67	58	4	68	5
0A491	Rathmullan	5811	Bar-tailed Godwit	Limosa lapponica	170	1500		5	4	5	15
0A491	Rathmullan	5816	Black-tailed Godwit	Limosa limosa	200	1100			3		
0A491	Rathmullan	5826	Turnstone	Arenaria interpres	95	1400		2	8	8	
0A491	Rathmullan	5856	Sanderling	Calidris alba	85	2000	23	41	37		8
0A491	Rathmullan	5859	Dunlin	Calidris alpina	460	13300	1	13	35		
0A491	Rathmullan	5963	Redshank	Tringa totanus	240	2400	1	3	2	3	4
0A491	Rathmullan	5973	Greenshank	Tringa nebularia	20	3300	2	4	3	2	3
0A491	Rathmullan	6089	Black-headed Gull	Chroicocephalus			72	94	84	38	43

SubSite - Code	Subsite	TaxonomyIO C	SpeciesName	LatinNameIOC	1% National	1% Internationa l	2015/1 6	2016/1 7	2017/1 8	2018/1 9	2020/2 1
			(breeding)	ridibundus							
0A491	Rathmullan	6122	Common Gull	Larus canus			25	177	126	158	77
0A491	Rathmullan	6131	Great Black-backed Gull	Larus marinus			12	5	29	19	5
0A491	Rathmullan	6148	Iceland Gull	Larus glaucoides			2			1	
0A491	Rathmullan	6152	Herring Gull	Larus argentatus			86	57	87	53	42
0A491	Rathmullan	6165	Lesser Black-backed Gull	Larus fuscus			1	14	40	1	1
0A491	Rathmullan	6194	Sandwich Tern (breeding)	Thalasseus sandvicensis				17		5	3
0A491	Rathmullan	6303	Common Guillemot	Uria aalge			1	1	23	1	
0A491	Rathmullan	6310	Razorbill	Alca torda				1			2
0A491	Rathmullan	6316	Black Guillemot	Cepphus grylle			1	1	2	1	
0A491	Rathmullan	6388	Red-throated Diver	Gavia stellata	20	3000	3	2	1	1	
0A491	Rathmullan	6393	Great Northern Diver	Gavia immer	20	50	3		37	1	2
0A491	Rathmullan	6739	Gannet	Morus bassanus					1		
0A491	Rathmullan	6814	Cormorant	Phalacrocorax carbo	110	1200	34	34	85	18	16
0A491	Rathmullan	6821	Shag	Gulosus aristotelis			2		8	1	4
0A491	Rathmullan	7058	Grey Heron	Ardea cinerea	25	5000	3	7	5	4	2
0A491	Rathmullan	7111	Little Egret	Egretta garzetta	20	1100			1		
0A491	Rathmullan	9349	Kingfisher	Alcedo atthis						1	

Table 1. I - WeBS Data for Lough Swilly, sub-site Rathmullan (0A491), data supplied by Birdwatch Ireland.

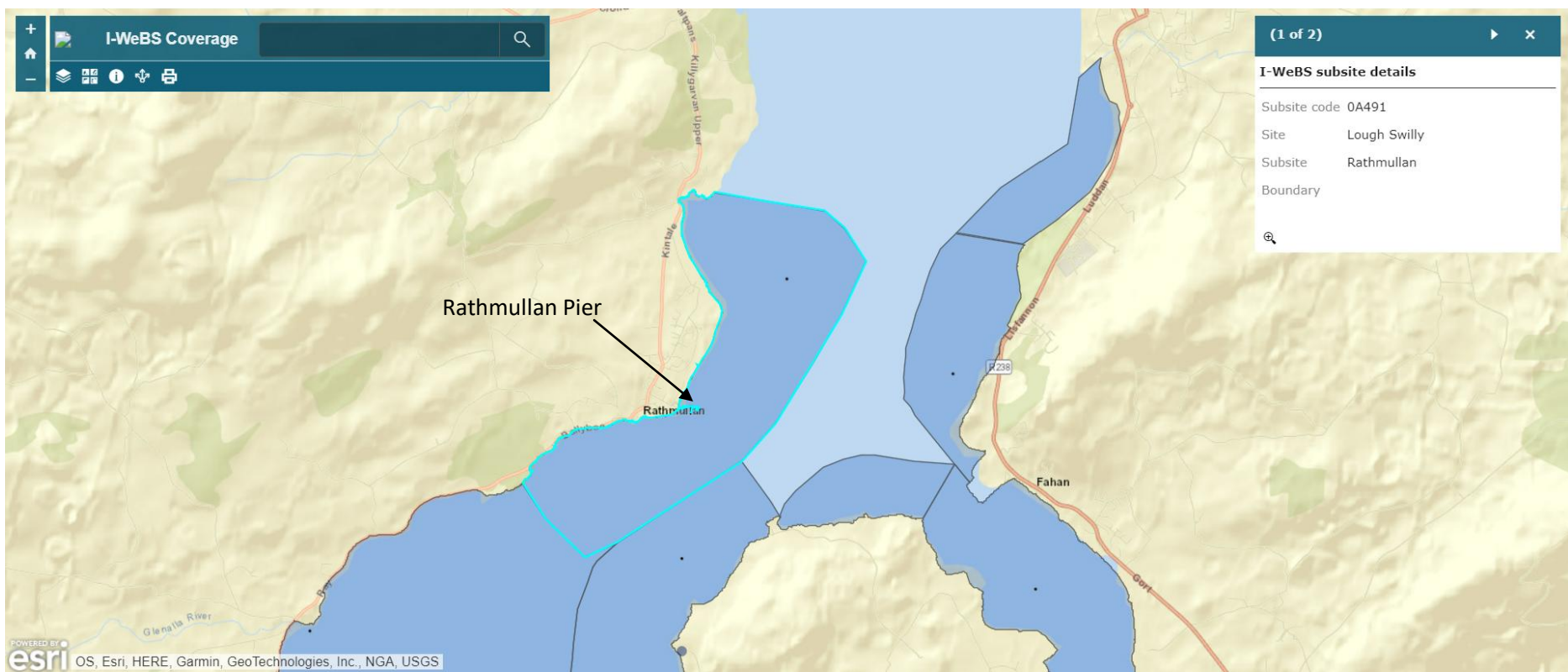


Figure 1. Area of subsite Rathmullan OA491 © Birdwatch Ireland, ESRI 06/06/2022

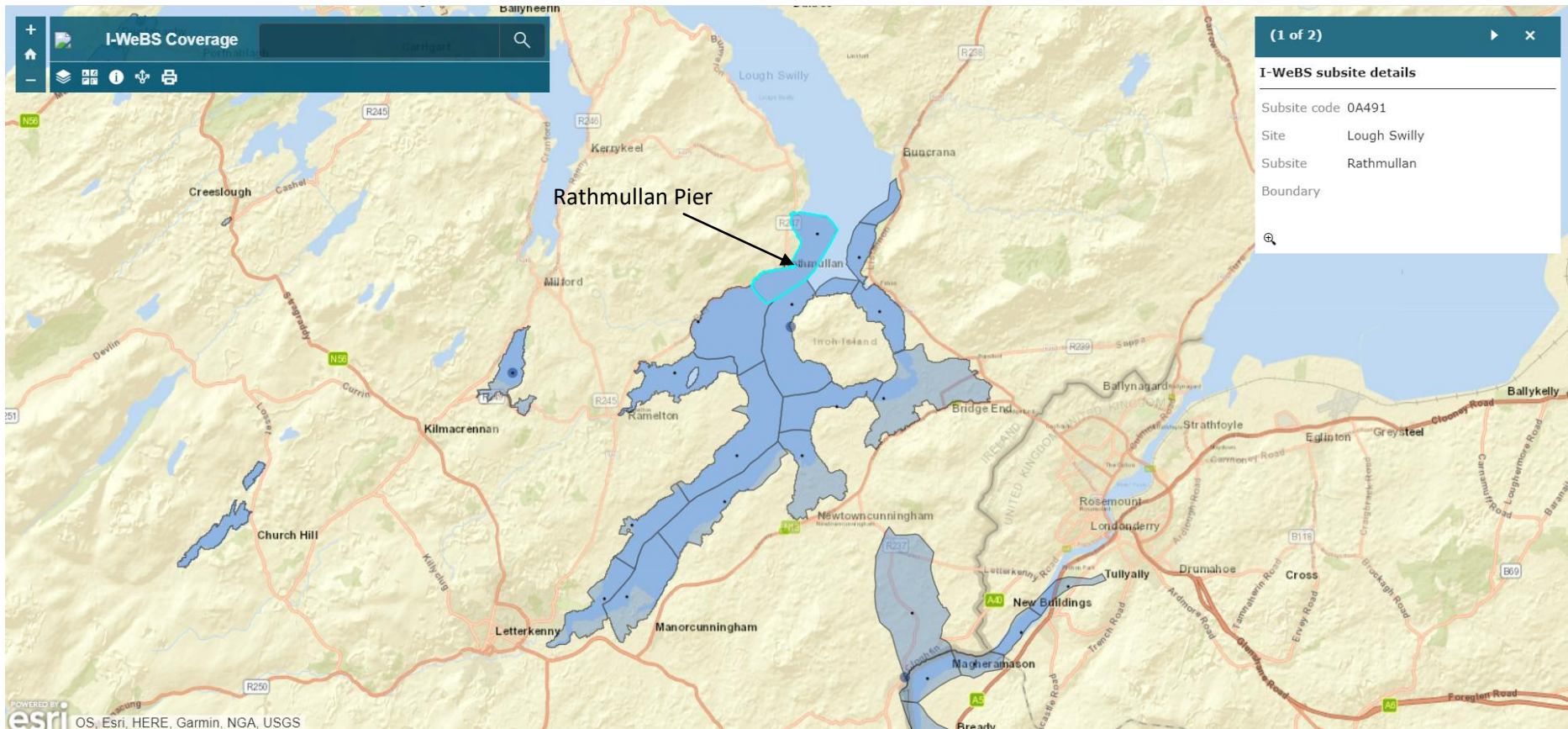


Figure 2. Rathmullan subsite relative to Lough Swilly SPA spanning the entire Lough from Letterkenny to Buncrana © Birdwatch Ireland, ESRI 06/06/2022.

