APPROPRIATE ASSESSMENT

SCREENING and NATURA IMPACT STATEMENT

IN ACCORDANCE WITH THE REQUIREMENTS OF

ARTICLE 6(3) OF THE EU HABITATS DIRECTIVE

Donegal County Council

Platforms for Growth

Downings, Co. Donegal

For: Paul Doherty Architects Ltd.

Castle Street

Donegal Town

Co. Donegal

Date: 03 JULY 2025

Prepared by:

JESSICA DEVLIN

PROJECT MANAGEMENT & ENVIRONMENTAL SERVICES

Contents

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1.0 Introduction

This report has been prepared by Jessica Devlin for Paul Doherty Architects Ltd. and Donegal County Council for the purpose of a Planning Permission Application pertaining to the Platform for Growth: Facilities for water sports activities at Downings, Co. Donegal, Ireland. This report has been compiled to provide the competent authority (An Coimisiún Pleanála (ACP)) 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) / Special Conservation Interests (SCI) of the Natura 2000 sites will be identified and the significance of the impacts will be assessed. The NIS will assist ABP 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.

The purpose of this 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 development, 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.

Findings are based on research and surveys carried out from 2024-2025 and the report also refers to data and results from previous survey work undertaken by CAAS Ltd. on behalf of Fáilte Ireland in 2020-2021.

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 Natura 2000 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 Devlin 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.

Daniel Moloney

Bird surveys were carried out by Daniel Moloney

Daniel is a respected local Ornithologist who has been conducting bird surveys for wind farm impact assessments and other construction works across a range of projects in the Republic of Ireland, Northern Ireland, and Scotland.

Daniel was the corncrake fieldworker for 7 years on the Corncrake Conservation Project based in Donegal. This work consisted of conducting the annual census of corncrakes and issuing grant schemes to landowners. Habitat management works on offshore islands to improve and enhance habitats for the species.

He was the Curlew fieldworker on the Halting Environmental Loss Project (HELP), AN INTERREG cross border project with the RSPB. This consisted of carrying out a census of breeding Curlew in the border counties, identifying target areas for habitat restoration, liaison with farmers re entry into tailored management agreements, delivering training events, writing management plans and procuring contractors to carry out capital works to enhance habitats.

More recently, Daniel was the project manager on the INTERREG VA Cooperation Across Borders for Biodiversity (CABB). He conducts surveys of breeding waders in the border counties, designs and implements management agreements with farmers, manages 3 Donegal reserves, carries out restoration works at key waders sites and manages staff in various other aspects of the project.

He has been working as a raptor specialist since 2006 carrying out field work for organisations such as the Raptor Study Group and Northern Ireland Raptor Study Group for species such as Hen Harrier, Peregrine, Merlin, and Golden Eagle.

3.0 Methodology

- Liaison with Paul Doherty Architects Ltd. and Donegal County Council.
- Site visit and walkover surveys on 19 June 2024 and 21 May 2025.
- Bird surveys Autumn 2024 – Spring 2025
- Desk research (list not exhaustive, see section 16 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, coastal monitoring project, Sand Dunes monitoring project.
- 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 16.

- 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.
- *Guidelines for Ecological Impact Assessment in the UK and Ireland* (Chartered Institute of Ecology and Environmental Assessment, 2018 and as updated September 2019)

4.0 Overview of project proposals

Fáilte Ireland's capital investment programme, Platforms for Growth explicitly targets 'platforms' or project types that have the greatest potential to grow tourism across Ireland throughout the year.

The second Platform for Growth, launched in January 2020, focuses on developing water sports activity facilities across the country with the aim of increasing participation in water sports all year round by significantly improving the visitor experience. Facilities will include changing areas, hot showers, toilets, secure

storage for personal belongings, and external showers. An accessible washroom and a changing places toilet are also provided.

Donegal County Council is applying for Planning Permission for one of these facilities at Crocknamurleog Downings. This project consists of the construction of a facility centre for water sports activities and associated works including safety improvement works to the access lane to Downings beach, wayfinding signage, site drainage, landscaping, carpark realignment, demolition of existing public toilets, connection to existing utilities, accommodation works and supporting ancillary works.

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 QIs/SCIs of a Natura 2000 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).

The Natura 2000 Sites have been assessed in terms of whether a Source - Pathway - Receptor relationship exists, 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 just within Sheephaven SAC (001190). It is possible that species from Horn Head to Fanad Head SPA (004194) use the area for foraging and roosting. These Natura 2000 sites have been screened in for further assessment, site synopses can be seen in appendix 1. All other Natura sites have been screened out due to the size, scale and type of project, the types of qualifying interest involved and their distances from the project. A Source – Pathway- Receptor relationship is not considered to exist with any other Natura 20000 site, see appendix 2.

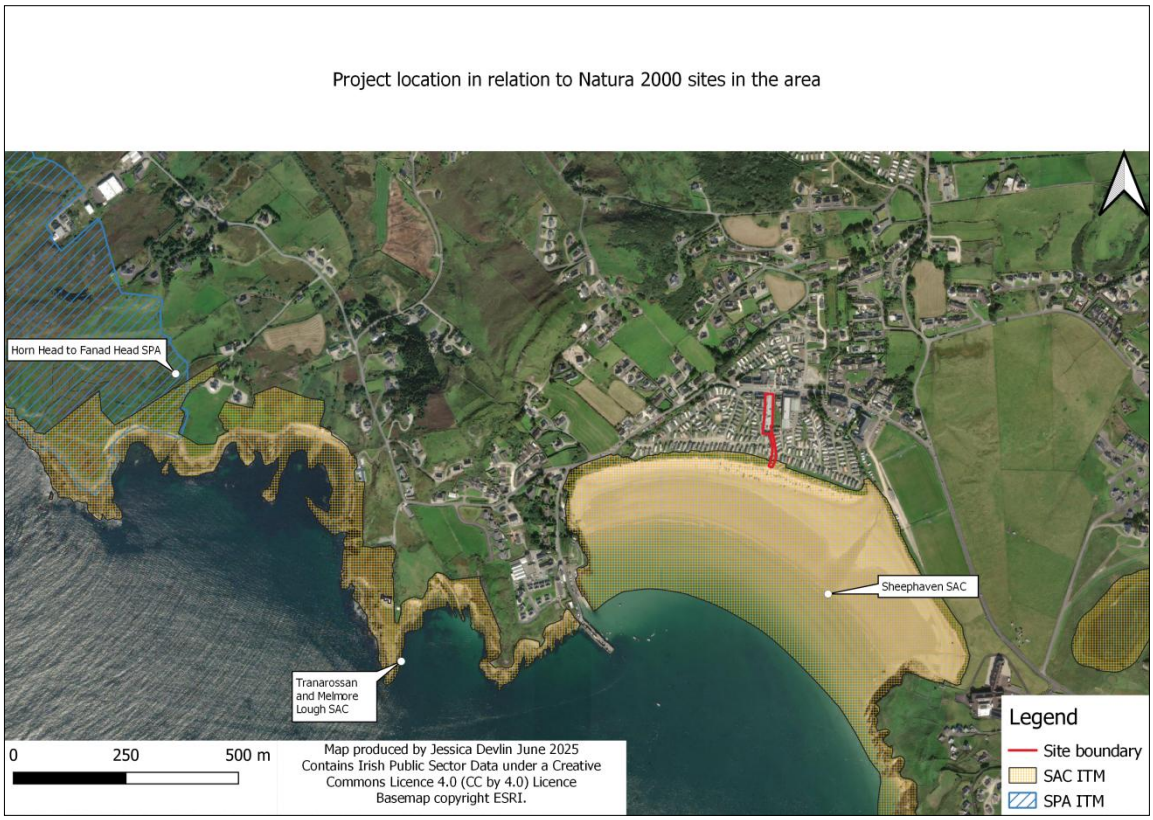

Figure 5.1 Natura 2000 sites in proximity of Downings PFG project.

5.2 Summary of Natura 2000 sites

Detailed site synopses can be seen in Appendix 1.

Sheephaven SAC

Sheephaven Bay is a north-facing bay, situated north of Creeslough on the north-west coast of Co. Donegal. The site occupies the entire inner part of the bay, and includes the intertidal area at Carrickgart. The bedrock geology of the site is quite varied, with schist (at least two types), quartzite and metadolerite present. The site receives the flows of a number of rivers, notably the Lackagh River, the Duntally River, the Faymore River and the Carrownamaddy River. The site contains a diversity of habitats ranging from mudflats, saltmarshes and sand dunes, to lakes, rivers, heath, scrub and woodland.

The intertidal mud and sandflats support moderate numbers of waterfowl in autumn and winter. These include Shelduck (75), Wigeon (414), Teal (129), Mallard (117), Oystercatcher (155), Ringed Plover (48), Dunlin (107) and Curlew (86) (data from 1984/85-86/87 period). The site is sometimes used by the population of Barnacle Goose which is centred at the New Lake at Dunfanaghy. This flock numbers up to 300. Barnacle Goose is listed on Annex I of the E.U. Birds Directive. Other Annex I species associated with the site are Chough (2 possible breeding pairs), Peregrine (occasional visitor) and Common Tern. Terns have not been recorded breeding in recent years, though suitable habitat exists. Part of the site is a Wildfowl Sanctuary.

The site is of particular conservation significance for the presence of good examples of several habitats listed on Annex I of the E.U. Habitats Directive and for the important bird populations it supports.

Horn Head to Fanad Head SPA

The Horn Head to Fanad Head SPA comprises a number of separate sections of the north Co. Donegal coastline stretching some 70 km eastwards from Dooros Point, south-west of Horn Head to just south of Saldanha Head, south of Fanad Head. The Horn Head to Fanad Head SPA is of high importance for Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive. It also supports an internationally important assemblage of breeding seabirds, that includes nationally important populations of six species, i.e. Fulmar, Cormorant, Shag, Kittiwake, Guillemot and Razorbill. The Greenland White-fronted Goose and Barnacle Goose populations are also of national importance. Both of these species, as well as Whooper Swan, are listed on Annex I of the E.U. Birds Directive. A good diversity of other wildfowl species occurs. Part of the Horn Head to Fanad Head SPA is a Wildfowl Sanctuary.

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."

Conservation objectives for Sheephaven SAC (001190)

Objective 1: [1140] To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide.

Objective 2: [1330] To restore the favourable conservation condition of Atlantic salt meadows (*GlaucoPuccinellietalia maritimae*).

Objective 3: [1410] To maintain the favourable conservation condition of Mediterranean salt meadows (*Juncetalia maritimi*).

Objective 4: [2120] To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes').

Objective 5: [2130] To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes').

Objective 6: [21A0] To maintain the favourable conservation condition of Machairs.

Objective 7: [91A0] To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles.

Objective 8: [1395] To maintain the favourable conservation condition of Petalwort.

The conservation Objectives document has not yet been updated to include the remaining Qualifying Interests:

[1210] Annual Vegetation of Drift Lines

[1230] Vegetated sea cliffs of the Atlantic and Baltic coasts

[1310] Salicornia Mud

[2110] Embryonic Shifting Dunes

[2190] Humid Dune Slacks and

[1065] Marsh Fritillary (*Euphydryas aurinia*)

Conservation objective for Horn Head to Fanad Head SPA (004194)

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Bird Code	**Common Name**	**Scientific Name**
A009	Fulmar	*Fulmarus glacialis*
A017	Cormorant	*Phalacrocorax carbo*
A018	Shag	*Phalacrocorax aristotelis*
A045	Barnacle Goose	*Branta leucopsis*
A103	Peregrine	*Falco peregrinus*
A188	Kittiwake	*Rissa tridactyla*
A199	Guillemot	*Uria aalge*

5.3 Other plans/projects

5.3.1 The Wildlife Acts 1976 to 2021

The Wildlife Act is the principal national legislation providing for the protection of wildlife and the control of some activities that may have a negative effect on wildlife. The Wildlife (Amendment) Act 2000 strengthened the 1976 Act by, among other things, giving statutory protection to Natural Heritage Areas, improving existing measures to enhance protection of wildlife species and their habitats (e.g. fish and aquatic invertebrate species, hedgerow cutting) and strengthening the protective regime for Special Areas of Conservation (SACs).

The conservation of biodiversity in Ireland has been strengthened and expanded by EU law including the Water Framework Directive, the Birds Directive and the Habitats Directive.

5.3.2 County Donegal Development Plan 2024 - 2030

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 applications pending within the immediate vicinity of the project location. Recent planning permissions can be seen in appendix 3; these have included extensions and refurbishments to existing buildings, additional camper van facilities and facilities for spectators in the playing grounds to the east of the project.

5.3.3 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.

5.3.4 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.

5.3.5 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

The Project site comprises the existing car park and existing access road onto Downings beach.

A walkover survey of the site was undertaken on the 19 June 2024 by Jessica Devlin MSc. (Due to the time lapse between initial site visit and the writing of the report a second visit was made on the 21 May 2025, to ascertain if there had been any changes at the site, no significant changes were noted). This was a rapid assessment of the ecological features present, or potentially present, within a site and its surrounding area (the zone of influence) in relation to the project. On this occasion this incorporated a desk study and walkover survey. All habitat types were classified using the Guide to Habitats in Ireland (Fossitt, 2000). The objective of the survey was to scope out the site and to determine where the focus of any additional assessment should be.

The location of the proposed facility is in the existing car park and along the existing access route (BL3 buildings and artificial surfaces) (Plate 1 and 2). The toilet block which will be demolished is a small building also within the confines of the car park. All services are located on the northern end of the car park along the road. The access road is a rough path covered with sand and shared between pedestrians and vehicles. Cars are permitted to park on the beach. There are caravans on both sides of the access road. Both banks are reinforced with rock armour, some rock armour is visible along the left hand side on the approach to the beach, with evidence of erosion and bank instability see plate 3. The right hand side on the approach to the beach is higher and more vegetated with scrub (WS1 Scrub). Species along both sides include Rye-grasses *(Lolium spp.),* Docks (*Rumex* spp.) Buttercup (*Ranunculus repens)*, Dandelion (*Taraxacum vulgaria)*, Ivy (*Hedera Helix*), Nettle (*Urtica dioica)* and the invasive Sea buckthorn (*Hippophae rhamnoides)* was noted*.*

The beach is a sand shore (LS2 sand shore), becoming muddier towards the sea (LS3 Muddy sand shores). The beach has a narrow ridge of degraded dunes (CD1 Embryonic dunes/ CD3 Fixed dunes) along the beach these include the species Lyme grass (*Leymus arenarius)*, Wild mustard (*Sinapis arvensis)*, and European sea rocket (*Calile maritime*) (see plate 4 -7)*.*

A stream (FW2 Depositing/lowland rivers) runs out on to the beach at the end of the strand towards the football pitches, rock armour has been put along the eastern side of the beach to protect the playing pitches from erosion (see plate 8). There are rock outcrops and a path leading up towards McNutts factory on the western side of the beach. The pier (CC1 sea walls piers and jetties) be seen in the distance.

Plate 1. Looking north from start of beach access road, across car park / proposed site of the facility building.

Plate 2. Looking south down exsiting access road towards beach.

Plate 3. Rock armour and erosion along access route.

Plate 4. Looking west along dunes, showing signs of degradation and trampling.

Plate 5. Looking north from beach towards caravan park – one of a number of established beach access routes through the dunes.

Plate 6. Looking south across beach towards the pier in the distance.

Plate 7. Looking north at exist from the beach.

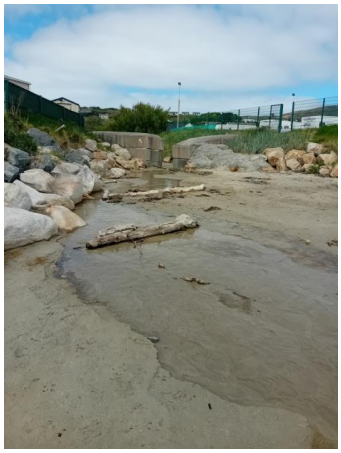

Plate 8. Looking north along Rosapenna stream with rock armour and sea defences.

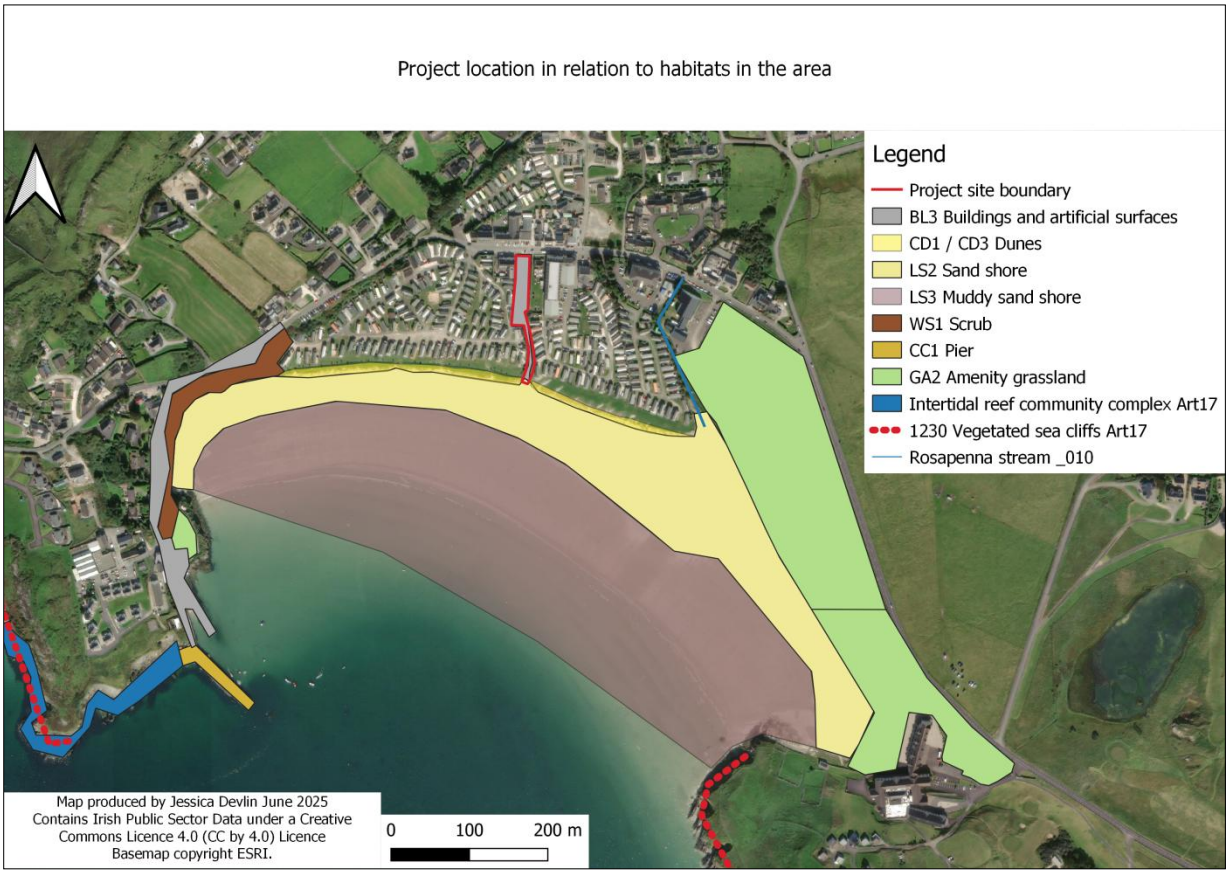

Figure 6.1 Habitat map of project area and surrounds, including Article 17 data.

6.1 Hydrology

The Rosapenna stream _010 enters the sea at Downings beach see figure 6.2. According the EPA website, www.catchments.ie, the coastal water quality status in Downings is currently High status. The water quality of the Rosapenna is Poor, and is currently under review in terms of risk of not meeting WFD requirements. Groundwater is classified as good.

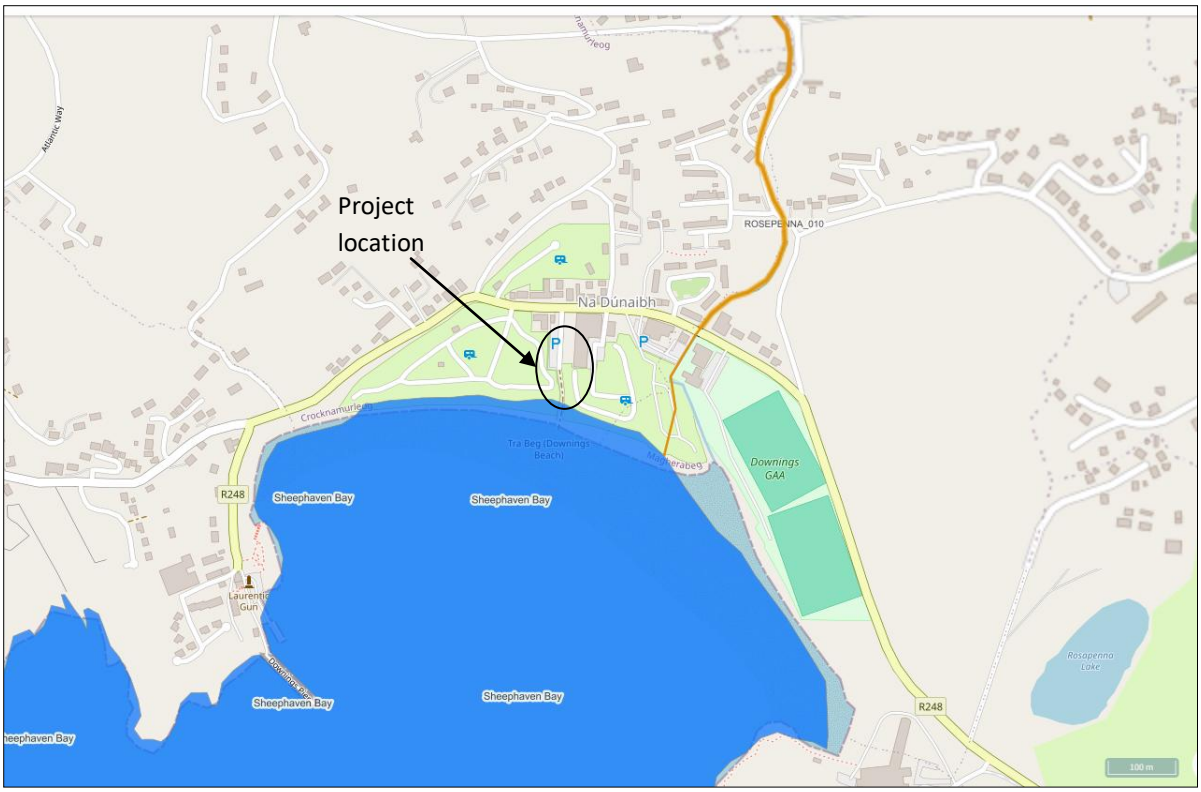

Figure 6.2. River network and water quality in the Downings area. (Map source catchments.ie accessed 27 May 2025, © ESRI, ©OSI)

7.0 Detailed project proposals as provided by Paul Doherty Architects Ltd.

Fáilte Ireland has developed a universal and standardised design for all of the Activity Facility Centres delivered under the Platform For Growth Schemes which can be adapted to suit individual location and site specifications.

The facilities at Downings include showers, toilets, seating, foot washing, a water font, lockers and 2 plant rooms. The area round the facility will be paved.

Wastewater and grey water will be piped north to connect to the existing public network. Surface water will also be captured by the same system.

Footpaths and vehicle access toward the beach will be widened and upgraded and the existing car park realigned to make better use of space.

The existing toilet block will be demolished.

Lighting will be installed in the car ark area and trees will be planted.

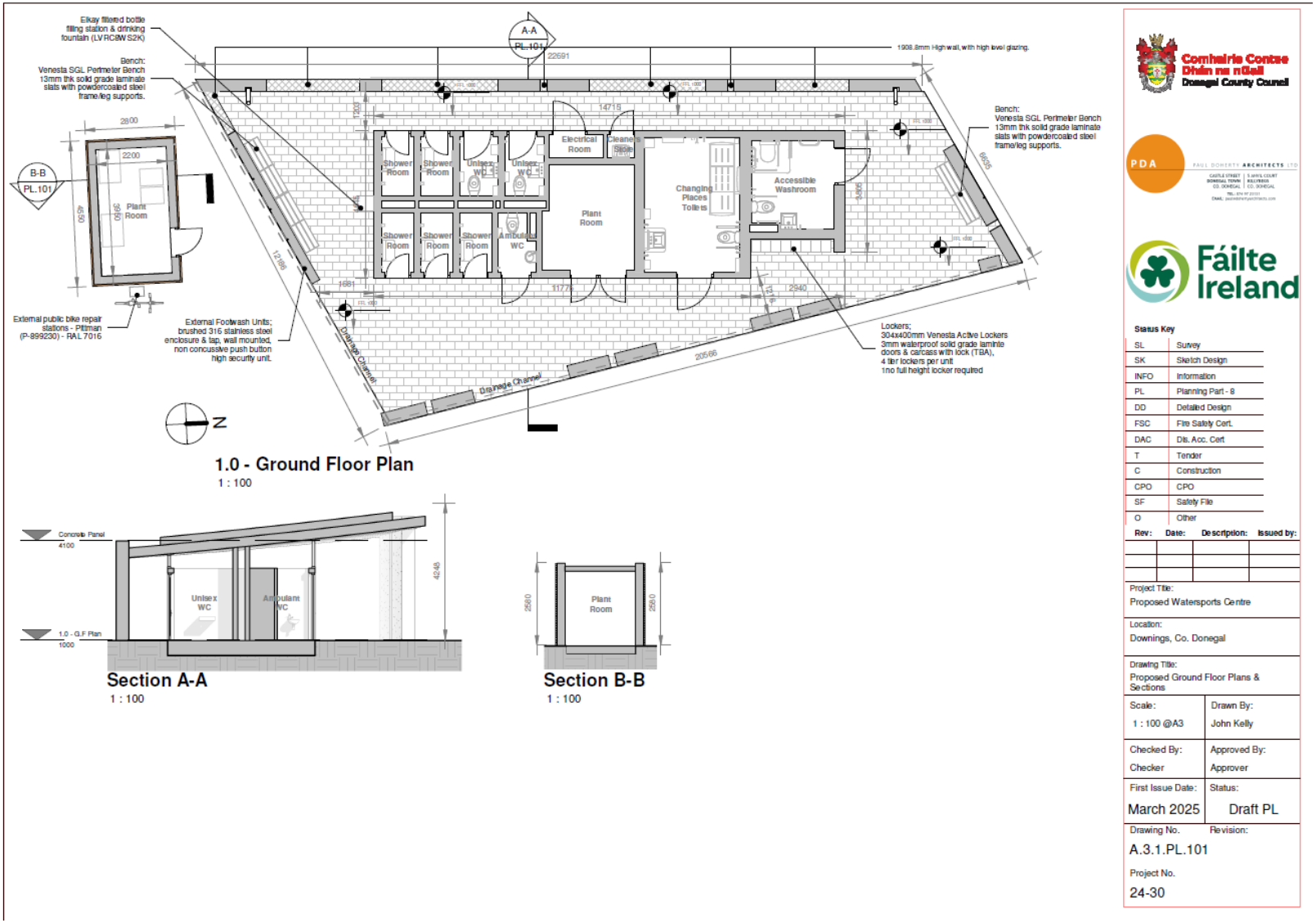

Figure 7.1 Proposed ground floor plans and sections as supplied by Paul Doherty Architects Ltd. (Not to scale).

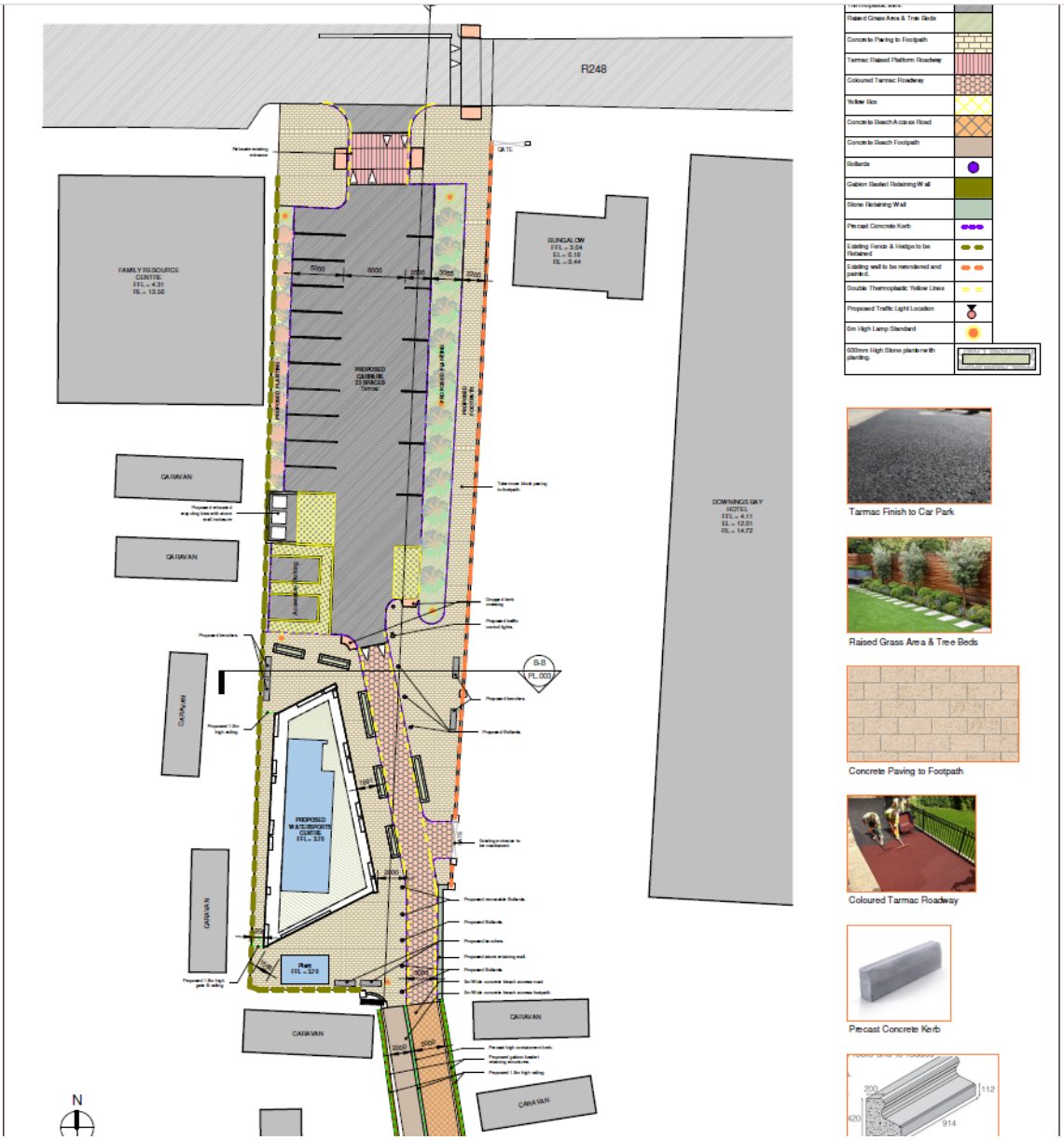

Figure 7.2 Platform for Growth: Downings extract from site layout plan, as supplied by Paul Doherty Architects Ltd. (Not to scale).

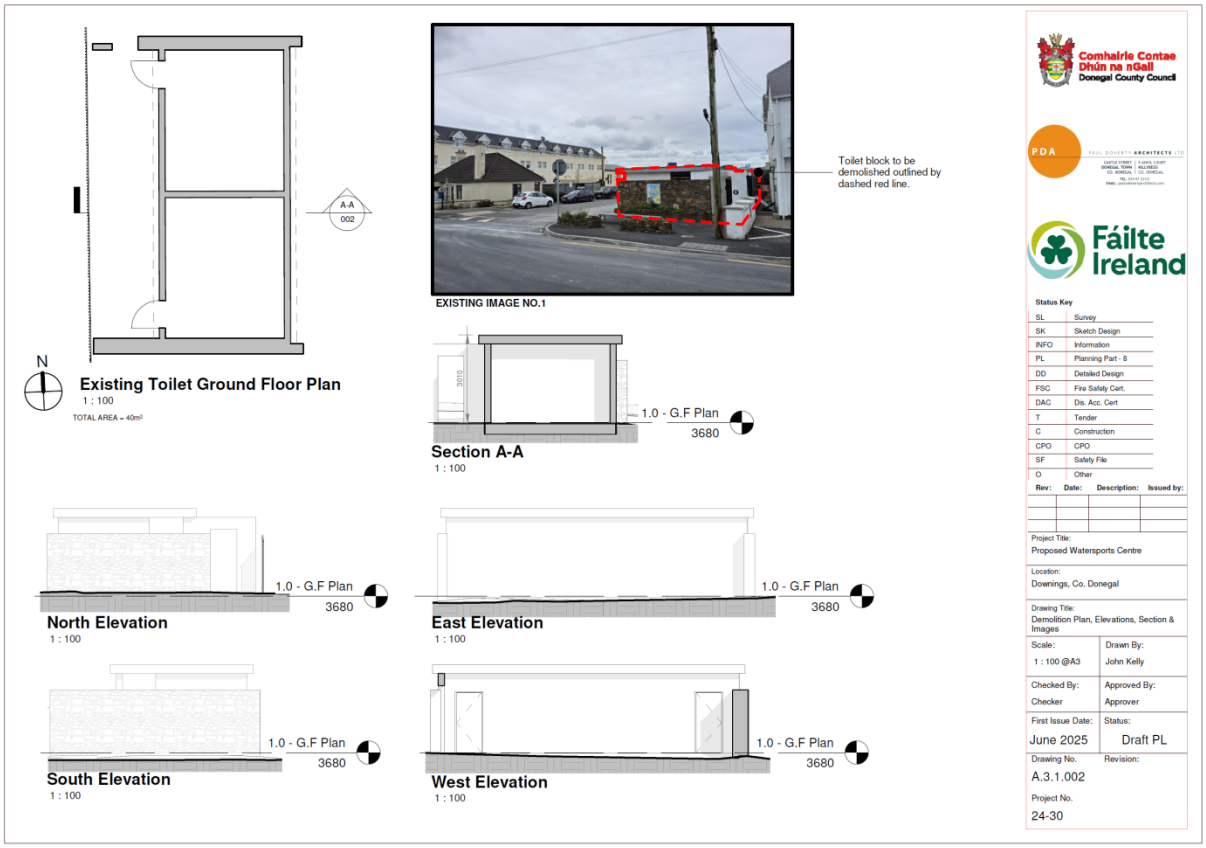

Figure 7.3 Existing Toilet Building to be demolished as supplied by Paul Doherty Architects Ltd. (Not to scale).

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

Table 8.1 explores where there may be potential for the project to impact Natura 2000 Sites and their qualifying interests.

Attribute	**Description**	**Potential Impact to Natura 2000 site?**
Size & Scale	Demolition of toilet block (40m^2), construction of facility and refurbishment of car park and access road (c.0.46acre).	No impact.
Land take	A very small area of the project is within the SAC boundary where the access road meets the beach c.0.07acres	Potential impact to due presence of dune habitat and mudflat and sandflat habitat.
Distance from the Natura 2000 site or key features of the site	Within Sheephaven SAC and close to (1km) Horn Head to Fanad Head SPA	Potential direct and indirect impacts: Potential for run-off and pollution from development. Disturbance to SCI species and potential temporary loss of hinterland habitat.
Resource requirements (water abstraction etc.)	None.	
Emissions (disposal to land, water, or air)	Noise emissions. Construction emissions. Operation: Emissions not anticipated; all services existing.	
Excavation requirements	Site preparation, excavation and resurfacing.	
Transportation requirements	Lorries and excavators for delivery and works.	
Duration of construction, operation etc.	Short duration. No change in current use of the area.	Once works are complete there will be no significant change in operational activity/use at the site.

Table 8.1. Project activity and the potential direct, indirect and in combination impacts it may have.

9.0 Assessment of significance

As discussed in section 8, there is potential for the project to impact on Sheephaven SAC and Horn Head to Fanad Head SPA.

Table 9.1 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/ SCI	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
Sheephaven SAC **[1140] Tidal Mudflats and Sandflats** [1210] Annual Vegetation of Drift Lines	**Direct loss of habitat** There will be a temporary loss and disturbance of some dune habitat from works at the exit from the beach; this is degraded embryonic dunes which are adjacent to the existing entrance and caravan parks.	Potential to impact. Potential for significant effects.
[1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [1310] *Salicornia* Mud [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows **[2110] Embryonic Shifting Dunes** [2120] Marram Dunes (White Dunes) **[2130] Fixed Dunes (Grey Dunes)*** [2190] Humid Dune Slacks [21A0] Machairs* [91A0] Old Oak Woodlands [1395] Petalwort (*Petalophyllum ralfsii*)	**Indirect loss of habitat**: A species may stop using a habitat due to increased disturbance or habitat degradation on site. Habitat degradation due to hydrological impacts via surface water. Habitat degradation due to invasive species – Sea Buckthorn. **Construction:** **Water quality** The construction period of the proposed development poses some risk to the surrounding environment in terms of pollution run off into Sheephaven Bay which could cause direct impacts to sandflats and mudflats and any water birds using the area e.g oil on plumage, and indirect impacts to feeding sources e.g. killing prey or contamination. **Invasive species -** Sea Buckthorn noted at the entrance to the beach. This may be inadvertently spread into the dunes during works. **Operation:** An increase in visitor numbers could also cause additional trampling of the dunes Surface water, grey water and waste water will be pumped to the existing combined waste water treatment system.	Potential to impact. Potential for significant effects.
[1065] Marsh Fritillary (*Euphydryas aurinia*) **Horn Head to Fanad Head SPA** A009 Fulmar *Fulmarus glacialis* A017 Cormorant *Phalacrocorax carbo* A018 Shag *Phalacrocorax aristotelis* A045 Barnacle Goose *Branta leucopsis* A103 Peregrine *Falco*	**Disturbance / Displacement:** Noise and visual disturbance **Sea/Waterbirds:** Horn Head to Fanad Head SPA is designated for a number of waterbirds. **Construction:** 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 *et al.*, 2009). These distances are applicable to the construction phase. While the construction phase will be short and the project is small scale, it may create noise and cause disturbance or displacement of bird species. It may disturb birds if they are using the hinterland habitats at the site location. **Operation:**	Potential to impact Potential for significant effects.

Natura 2000 site & Qualifying Interest/ SCI	Potential impacts from the proposed development on the integrity of the Natura 2000 site, individually or in combination with other projects	Significance of Impact
peregrines A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* A346 Chough *Pyrrhocorax pyrrhocorax* A395 Greenland White-fronted Goose *Anser albifrons flavirostris* The site is also of special conservation interest for holding an assemblage of over 20,000 breeding seabirds.	Unlikely to be any change during the operational phase. This is already a very busy tourism destination.	
	Habitat or Species fragmentation The location of the facilities is within an existing car park with toilet facilities and is set within the town. Additional lighting is proposed this should be designed to emit as little light pollution as possible.	Significant effects are unlikely, but lighting should be suitably designed.
	Reduction in Species Density 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 potential for a direct and indirect impacts during construction if pollutants were to be released into the Bay, or if significant feeding grounds were removed. This could cause a reduction in species density if sensitive birds were disturbed during key lifecycle stages. Invasive species could, over the long term, alter the ecological make up of the dune system by dominating the vegetation therein.	Potential to Impact. Potential for significant effects.
	In combination: At the time of writing there were no live planning applications pending within 500m of the project location. Previous applications pertain to extensions and renovation so to existing buildings and increased spectator facilities at the playing grounds to the east.	In-combination effects unlikely, but cannot be ruled out entirely.

Table 9.1. Likely significance of impacts.

9.2 In-combination impacts

The potential for in-combination effects to arise from the project proposal is regulated and controlled by the environmental policies and objectives of the Donegal County Council Development Plan 2024 – 2030.

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.

It has been demonstrated that there is potential for the project to cause effects due to its proximity to Sheephaven Bay SAC and Horn Head to Fanad Head SPA, therefore though the project is small scale the precautionary principle has been taken, and in-combination effects cannot be ruled out at this stage.

10.0 Conclusion of SCREENING

Donegal County Council is applying for planning permission for the development of a facility centre for water-sports activities and access pathway to Downings Beach, including demolition of existing toilets refurbishment of the car park and associated site works.

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 does pose a risk to the marine and coastal environment and Sheephave SAC and Horn Head to Fanad Head SPA.

Potential effects were identified as:

- Habitat degradation due to hydrological impacts via surface water: Deterioration of water quality caused by run-off and pollution, during construction, that may lead to Sheephaven Bay.
- Temporary habitat loss/disturbance – Dune habitat due to construction works and trampling.
- Habitat degradation due to Invasive species – Sea buckthorn and spread to the dune habitats.
- Habitat degradation due to noise and disturbance: Some of the listed waterbird species may at times use habitats situated within the immediate hinterland of Horn Head to Fanad Head SPA or in areas ecologically connected to it.
- Reduction in species density due to pollution, invasive species, disturbance.
- In combination effects.

This section of the 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 possibility of significant impacts on Sheephaven SAC and Horn Head to Fanad Head SPA, its features of interest and site specific conservation objectives.

Stage 2 of the Appropriate Assessment process (Natura Impact Statement) is required.

11.0 NATURA 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 ABP 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. The report should be read in conjunction with the previous sections 1-10.

The purpose of this 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 development, 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.

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. The assessment undertaken in terms of the proposed development concludes that the there is potential for the project to significantly impact on the following designated sites:

Sheephaven SAC resulting in effects on:

[1140] Tidal Mudflats and Sandflats and

[2110] Embryonic Shifting Dunes and

Horn Head to Fanad Head SPA resulting in effects on:

A009 Fulmar *Fulmarus glacialis*

A017 Cormorant *Phalacrocorax carbo*

A018 Shag *Phalacrocorax aristotelis*

A045 Barnacle Goose *Branta leucopsis*

A103 Peregrine *Falco peregrines*

A188 Kittiwake *Rissa tridactyla*

A199 Guillemot *Uria aalge*

A200 Razorbill *Alca torda*

A346 Chough *Pyrrhocorax pyrrhocorax*

A395 Greenland White-fronted Goose *Anser albifrons flavirostris*

The site is also of special conservation interest for holding an assemblage of over 20,000 breeding seabirds.

Bird surveys were therefore carried out over the 2024 /2025 season. Further assessment of the likely impacts of the project and assessment of mitigation measure has also been undertaken.

12.0 Field surveys

In 2020/2021 Fáilte Ireland appointed CAAS ltd. to undertake winter bird surveys at Downings Beach. Due to the time between the surveys and the projects planning application in 2025, it was thought prudent to resurvey in the 2024-25 survey period. Data from both survey periods has been considered in this assessment.

2021/21 surveys took place over a 6 month survey period (October to March). The 2024-2025 winter bird surveys covered over >25 hours on site, across 6 months, October to March. 2024-25 Winter bird surveys followed IWeBs methodology to capture foraging and roosting birds. See appendix 4 for details of survey effort.

12.1 Bird survey results

A full list of survey data, along with survey dates and conditions can be seen in appendix 4. 2024/25 Waterbird surveys: There were 14 bird species recorded within the study area, 4 of which are mentioned in the ecological information of the Horn Head to Fanad Head SPA documents. 2020/21 survey results are similar to the 2024/25 number. 16 bird species were recorded 3 of which are mentioned in the SPA documents, see table 12.1.

Survey Year	Species	Species code	Scientific name	In Standard data form docs
2020/21, 2024/25	Sanderling	SS	*Calidris alba*	
2020/21 2024/25	Ringed Plover	RP	*Charadrius hiaticula*	
2020/21, 2024/25	Oyster Catcher	OC	*Haematopus ostralegus*	
2020/21, 2024/25	Curlew	CU	*Numenius arquata*	
2020/21 2024/25	Black-headed Gull	BH	*Chroicocephalus ridibundus*	
2020/21, 2024/25	Common Gull	CM	*Larus canus*	
2020/21, 2024/25	**Herring gull**	**HG**	***Larus argentatus***	**yes**
2020/21, 2024/25	Great Black- backed gull	GB	*Larus marinus*	
2020/21 2024/25	Great Northern Diver		Gavia immer	
2020/21	**Black Guillemot**		**Cepphus grylle**	**yes**
2020/21 2024/25	**Cormorant**	**CA**	***Phalacrocorax carbo***	**yes**
2020/21	Lesser black-backed gull	LB	*Larus fuscus*	
2020/21 2024/25	**Shag**	**SA**	***Phalacrocorax aristotelis***	**yes**
2020/21	Grey Heron	H.	*Ardea cinerea*	
2020/21 2024/25	Red-throated Diver	RH	*Gavia stellata*	
2020/21 2024/25	Mallard	MA	*Anas platyrhynchos*	
2024/25	**Lapwing**	**L.**	***Vanellus vanellus***	**yes**

Table 12.1 Water Bird species recorded in the 2020/2021 and 2024/2025 bird surveys.

Species	code	Max Foraging count 2020/21	Max Roosting Count 2020/21	Max count Foraging Roosting Loafing 2024/25	Numbers in SPA docs (breeding pairs)	SPA SCI Y/N	AllIreland_1pc	Flyway_1pc	Conservation status
Black headed Gull	BH	53	21	4			-	-	Amber
Common Gull	CM	209	162	297	2		-	-	Amber
Cormorant	CA	6	-	15	79	Y	110	1200	Amber
Curlew	CU	230	48	184			350	7600	Red
Great Black-backed Gull	GB	8	8	3	5		-	-	Green
Great Northern Diver	ND	36	-	5			20	50	Amber
Herring Gull	HG	50	126	52	21		-	-	Amber
Lapwing	L.	-	-	46	10		850	72300	Red
Mallard	MA	2	-	2	87(individuals)		280	53000	Amber
Oystercatcher	OC	618	593	286	1		610	8,200	Red
Red-throated Diver	RH	5	-	2			20	3000	Amber
Ringed Plover	RP	3	6	18			120	540	Amber
Sanderling	SS	77	92	135			85	2000	Green
Shag	SA	15	92	11	110	Y	-	-	Amber
Black Guillemot		6	-	-	204 (individuals)		-	-	Amber

Species	code	Max Foraging count 2020/21	Max Roosting Count 2020/21	Max count Foraging Roosting Loafing 2024/25	Numbers in SPA docs (breeding pairs)	SPA SCI Y/N	AllIreland_1pc	Flyway_1pc	Conservation status
Grey Heron		2	-	-			25	5000	Green
Lesser Black Backed gull		1	-	-			-	-	Amber

SCI species in yellow

Table 12.2 Summary of 2020/21 and 2024/25 data, including SPA data, I-WeBs National and International numbers and conservation status.

12.2 Discussion - Birds

Table 12.2 summarises the results of the Downings bird surveys across both survey periods 2020/21 and 2024/25. We can take the numbers in SPA documents as the regional population, and the 1% national and flyaway figures as national and international numbers. These figures have been used as a guide to determining the ecological importance of the survey area in terms of birds, see appendix 4.

SCI species

Across both survey periods only 2 of the SCI species for which the SPA is designated occur at the survey area: Cormorant and Shag.

Across both survey periods Cormorant occured in low numbers well below the regional, national and international figures. Shag figures were also well below national and regional numbers in the 2024/25 survey and were similar to regional numbers in the 2020/21 survey only.

All of these SCI records were in the marine habitat well away from the project location.

Other sea/water bird species

On comparing the survey data recorded in the 2020/21 and 2024/25 study area with IWeBs national and International 1% figures, records are generally lower than data available for national and international figures, with some exceptions:

Curlew occur in numbers, that are below the national figure, but may be significant given the red conservation status of the species.

Great Northern Diver (Amber), Oystercatcher (Red) and Sanderling (Green) all occur in numbers similar to the national 1% figures

None of the SCI birds or other birds listed in SPA documents were recorded in or around the footprint of the project.

Foraging areas: The results of the 2020/21 and 2024/25 surveys are very similar.

Foraging occurred in the playing fields adjacent to the beach, at sea, on the wider beach (LS3) and in the agricultural fields surrounding Downings to the east and west.

Roosting areas: The results of the 2020/21 and 2024/25 surveys are again very similar.

Roosting was observed to the east of the beach around the freshwater outlets onto the beach.

The playing field and the agricultural land to the east are most popular with Oystercatcher, Curlew and a number of gull species.

The ecological value of the habitat adjacent to the project area is considered locally important to important to sea/waterbirds. The habitat adjacent to the project area is not a significant hinterland habitat for SCI birds.

13.0 Assessment of impacts

To determine fully how the project may potentially impact the relevant qualifying interests of the Natura 2000 sites a better understanding of the species and habitats in question is required. Information has been collated from conservation objectives documents and supporting documentation, as detailed in section 16. Table 13.1 details threats pressures and sensitivities of habitats and species. The pressures and threats that the project may contribute to are highlighted in bold.

Qualifying Interests with potential to be impacted	Threats to and sensitivities of the qualifying interests	General Pressures / Threats Identified in the Natura 2000 sites
Sheephaven SAC [1140] Tidal Mudflats and Sandflats [2110] Embryonic Shifting Dunes [2130] Fixed Dunes (Grey Dunes)*	**Tidal Mudflats and Sandflats** are vulnerable to **a**quaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, particularly cord-grass; hard coastal defence structures; sea-level rise. They are surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to **pollution**. Changes to salinity and tidal regime. **Coastal development.** Embryonic shifting dunes are vulnerable to natural erosion processes exacerbated by **recreation** and sand extraction and coastal protection interfering with natural processes. Fixed dunes are vulnerable to **recreation**; overgrazing and inappropriate grazing: **non-native plant species, particularly sea buckthorn** (*Hippophae rhamnoides*). Both dune habitats are sensitive to overgrazing, and **erosion and changes in management**.	The known threats and pressures for the site are: **Outdoor sports and leisure activities, recreational activities,** Stock feeding, Golf course, Motorized nautical sports, Forestry clearance.
Horn Head to Fanad Head SPA [A009 Fulmar *Fulmarus glacialis* A017 Cormorant *Phalacrocorax carbo* A018 Shag *Phalacrocorax aristotelis* A045 Barnacle Goose *Branta leucopsis* A103 Peregrine *Falco peregrines* A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* A346 Chough *Pyrrhocorax pyrrhocorax* A395 Greenland White-fronted Goose *Anser albifrons flavirostris*	Bird species are particularly vulnerable to direct disturbance due to **noise and/or vibration**. These effects are localised, and disturbance effects are foreseen to be low at distances beyond 300m (Cutts *et al*. 2009, Goodship *et al* 2022). Direct habitat loss is a serious concern for bird species, as well as the reduction in habitat quality. Habitat degradation could occur through effects such as local enrichment due to agricultural practices or **damage to habitat through activities such as trampling.** Prey species diversity and availability is a key element of species conservation. **Vegetation composition, structure and functionality**. **Wetland:** Direct land take is a common vulnerability to all sites; as well as significant water quality effects. Wetland habitat is an important resource for waterbird species that make up the total waterbird assemblage. These species may include those that utilise the site during passage, those that are present in months of the year outside of the non-breeding season or species that use the site at certain times only (e.g. as a cold weather refuge).	The known threats and pressures for the site are: Modification of cultivation practices, restructuring agricultural land holding, Paths, tracks, cycling tracks, Removal of beach materials, Fertilisation, **Erosion,** Walking, horseriding and non-motorised vehicles, **Invasive non-native species,** Camping and caravans, Motorised vehicles

Table 13.1 Habitat and species requirements and the general pressures and threats identified.

A full suite of Mitigation measures can be seen in appendix 5. The assessment of residual effects can be seen in Appendix 6.

13.1 Habitat degradation due to hydrological impacts via surface water and groundwater.

Construction:

Emissions to air, soil and water during site preparation and construction activities: While temporary in nature, construction operations can, sometimes, result in pollution or sedimentation incidents, which can impact negatively on habitat quality. Inadvertent release of suspended solids (from excavation, movement of soils, and construction materials) and other pollutants and hyrocarbons into Sheephaven Bay could contribute to nutrient enrichment and sedimentation, and could also impact on the water quality.

Sheephaven Bay has mud flat and sandflat habitat and is also used by sea and water birds. As discussed in section 12, the ecological value of the habitat adjacent to the project area is considered locally important for sea/water birds, which depend on the wetland habitat and the water quality in the bay.

The mudflat and sandflat habitat is moderately sensitive to pollution.

An acute pollution incident could have significant effects on SCI's, and other sea/water birds potentially causing death and/or pollution and degradation of marine habitats and feeding sources.

The main pathway for transporting sediments from the development site is via storm/surface water runoff during construction. If this pathway is eliminated then this risk is reduced significantly. Other pollutants that could enter the system via percolation through soils or groundwater require careful site management, in particular hydrocarbon, fuel, chemicals and any other hazardous materials on site.

Operation:

Run off of polluted surface water from hard surfaces from the developed site could cause an ongoing source of pollution.

A malfunction of the waste water pumping system could also cause a major acute incident or a long term pollution source. All of these issues, if they were to occur individually or together could have significant effects on the Qualifying Interests causing death and /or pollution and degradation of marine habitats and feeding sources.

13.1.1 Mitigation Measures - Habitat degradation due to hydrological impacts

A full suite of mitigation measures can be seen in appendix 5. These should be integrated into the method statements prepared by the appointed contractor it is recommended that this should be a condition of planning permission.

Construction and Environmental Management Plan

A project-specific Construction and Environmental Management Plan (CEMP) has been developed with input from the projects' environmental consultant and is included within the planning application.

Operation

Downings has wastewater, grey water and surface water services to which the project will connect. Back up pumps and alarms are proposed to alert operators of any malfunction to the respective systems.

13.1.2 Residual effects - hydrological impacts

Provided mitigation measures are implemented in full and manufacturers guidelines are fully adhered to and implemented, the construction and operation phases of the development will not pose a risk to the

conservation objectives, or the conservation condition, of the QI's/SCI's of Sheephaven SAC and Horn Head to Fanad Head SPA. There are no residual direct or indirect impacts associated with the proposed development that could adversely affect the integrity of the SAC and SPA.

13.2 Habitat loss / disturbance - dune habitats

Sand dunes are hills of wind-blown sand that have become progressively more stabilised by a cover of vegetation. In general, most sites display a progression through strandline, foredunes, mobile dunes and fixed dunes. Where the sandy substrate is decalcified, fixed dunes may give way to dune heath. Wet hollows, or dune slacks, occur where the dunes have been eroded down to the level of the water table. Transitional communities can occur between dune habitats and they may also form mosaics with each other. Dune systems are in a constant state of change and maintaining this natural dynamism is essential to ensure that all of the habitats present at a site achieve favourable conservation condition.

The vegetation on dunes is an essential feature in maintaining stability of the dune system. Damage to this vegetation caused by beach users treading a common path is sufficient to cause extensive instability over a large area due to the creation of vulnerable erosion routes. This loss of sand reduces the overall mass of the beach and sand dune system which acts as a buffer to the sea. Pedestrian traffic resulting in the trampling of vegetation is the most widespread form of damage to dune systems caused by human activities. Sand dunes that are subjected to unmanaged access can experience severe vegetation damage followed by soil and sediment erosion.

The dunes at Downings cover a small strip between the Caravan parks and the beach. They are listed as Embryonic dunes however they are quite stable in areas with binding vegetation showing elements of marram and some fixed dune evident. The construction works have the potential to damage the dune system at the entrance to the beach. The existing walkway has embryonic shifting dunes on both sides as it ends at the beach. During works disruption to this area will be kept to a minimum however some temporary localised loss and disturbance will occur.

Trampling by pedestrians accessing the beach from the caravan parks is evident throughout the dune system. The proposed project has potential to introduce effects to the site that align with the known threat's Outdoor sports and leisure activities, recreational activities. The use of the facility could increase visitor movements at the site.

13.2.1 Mitigation measures - dune habitats

NPWS will be consulted prior to any works taking place within the SAC. Construction workers will be made aware of the sensitivities in the area and the area will be fenced off as much as is practical during works. After access works are complete sand that has been temporarily removed will be reinstated, split hazel fencing will be erected around the edge of the dunes, to encourage recovery and to guide pedestrians into the access path. The access path and split hazel fencing will control visitor movements in and around the site and will deter users from tramping through the dune system by providing them with a direct, safe and accessible route.

Works should be done by hand as much as is practicable. Tracked machinery should not be used in the dune system. Any damaged areas will be reinstated and planted with Dune grasses as appropriate e.g. couch grass (*Elytrigia juncea*) and/or lyme grass (*Leymus arenarius*).

A clear sign showing the exit from the beach will be erected.

Information and education panels will be erected around the project area explaining dune systems, the biodiversity associated with them and their coastal protection benefits.

Outside of the project footprint, there are several access paths cutting through the dunes to the beach. Every effort should be made to reduce the number of routes through consultation with local businesses and caravan

owners. Choosing an already established route is preferred rather than developing another route. The rest of the dunes should then be fenced off using split hazel fencing. This encourages sand to be trapped at the base of the dunes and will enable the dunes to recover.

The maintenance of suitable sand binding vegetation to support the natural dune building and repair processes to prevent erosion damage is an ongoing effort. This also involves the control of problem plants for example Sea-buckthorn, to eliminate any potential invasive species before they become widespread.

13.2.3 Residual effects – dune habitats

Following the implementation of mitigation measures outlined the dune system will take some time to recover but permanent loss of dune habitat is not anticipated. This area is currently subject to regular disturbance and is heavily degraded. The defined access route and fencing will better manage visitors in the area and will likely have a positive impact on the dunes over the long term. Due to the small area involved, and the potential for recovery of the system, effects will not be significant and do not pose a risk of affecting the conservation objectives, or the conservation condition, of the QI habitats or species of Sheephaven Bay SAC. There are no significant residual direct or indirect impacts that could adversely affect the integrity of the Natura 2000 sites.

13.3 Habitat degradation due to invasive alien plant species (IAPS) – Sea buckthorn and Biosecurity

Invasive Alien Plant Species (IAPS) are species that are introduced intentionally or unintentionally that can threaten native biodiversity, human health and ecosystem services, and potentially damage infrastructure. The early identification and management of IAPS can significantly reduce the resources required to minimise the spread of these species. 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 accidental transport, for example visiting 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).

Invasive species can pose a risk to our ecosystems and biodiversity and are hard to remediate and eradicate.

Planting, dispersing, or allowing/causing the dispersal, spread or growth of certain non-native plant species is controlled under Article 49 of the European Communities (Birds and Natural Habitats) Regulations, 2011; and refers to plant or animal species listed on the Third Schedule of those regulations.

Sea Buckthorn was recorded at the site along the entrance to the beach. This species is on the Third Schedule list, and is considered a medium risk invasive species on the Biodiversity Ireland Scale. Sea buckthorn forms dense shrub patches to the exclusion of native vegetation particularly on vulnerable sand dunes. On dunes where it is present soil pH and carbon/nitrogen ratios are lower and organic matter content is higher than in grassland plots (Isermann et al., 2007 as cited in National Biodisversity Data centre). The dense shrubs cause a decrease in species number, due to a decline of grassland species found on open dunes (Isermann et al., 2007 as cited in National Biodisversity Data centre) and even in areas where *H. rhamnoides* has been removed these desirable species do not recolonise the area for a number of years (Richards & Burningham, 2011 as cited in National Biodisversity Data centre). It spreads locally by self-seeding and suckering.

13.3.1 Mitigation measures - eradication of Sea Buckthorn and biosecurity

The area in question is small and is confined to the area along the entrance to the beach. Sea Buckthorn does not appear to have spread to the dunes along the front of the beach. It is recommended that all Sea-buckthorn is removed before any other work at the site commences. Grubbing up of plants using an excavator is a recognized and successful method in most cases. Root material as well as stems and branches should be removed for disposal, preferably by burning or incineration. Some of the larger stands may also be cut and the stumps painted with Glyphosate herbicide. This method has variable results the area should be monitored for regrowth. Smaller plants and seedlings can be pulled manually.

The treatment of invasive species on site will be undertaken by an IAPS specialist contractor, with appropriate licensing with regards to removal of materials and use of herbicides.

If burning is to be carried out the appropriate licences should be obtained. Otherwise removal of contaminated material to a licensed landfill is required.

The area will be monitored for invasive species on an ongoing basis.

Prevention of introduction or further spread of IAPS and biosecurity measures

IAPS can spread by the re-growth of cut plant fragments or root material. If a plant is broken up or disturbed during site clearance or other earthworks, it can readily re-grow in new areas where material is transported to. The spread of IAPS to uninfested areas would increase the future cost and effort required to control the species.

Where possible, all stands of IAPS will be eradicated prior to construction works taking place.

The following measures will be implemented across the proposed development site during construction prior to, during and after the management of invasive species:

- Prior to any works taking place, specific training will be given to all relevant site personnel to ensure they are aware of the location of IAPS on site, the impacts of the species and associated risks.
- Posters outlining the key features of IAPS will be displayed in communal areas on-site to ensure all site personnel are aware of this species and the associated risks.
- When importing materials from outside a site there is always a risk of importing unwanted elements such as seed or spores from invasive plants for example, Japanese knotweed or Rhododendron. Every effort will be made to ensure imported material is clear of contaminants and comes from a known reliable source. It is recommended that the contractor obtains documentation from suppliers that the material is free from Japanese knotweed and other invasive species.
- No new materials will be stored adjacent to stands of IAPS on site.
- All IAPS affected areas will be clearly demarcated by fencing/tape, prior to and during construction, to avoid any disturbance and to exclude access by plant and machinery. Signs will be erected on fencing to inform contractors of any risks posed. Stockpiles of soil that are or may be contaminated with IAPS must be clearly marked.
- Designated control measures will be implemented at the earliest possible stage to reduce the risk of spread of IAPS.
- Efforts will be made to reduce the risk of material transfer by enforcing appropriate controls on the movement of machinery, soils and materials in the infected area, i.e. by implementing strict and appropriate biosecurity measures on site.
- A systematic approach will be taken in the removal and control of IAPS, ensuring that the use of tracked machinery is limited in infested areas and vehicles and equipment are cleaned before moving around the site. All vehicles and equipment that have been used in IAPS control operations must be thoroughly cleaned and checked before they leave the works site and once work in that area has been completed. This also includes footwear, personal protective equipment (PPE), tools, and other light equipment. These measures will minimise the risk of introducing or reintroducing contaminated materials, seeds or plant fragments into areas that is already treated or developed.
- Excavated infested soils will be transported (if required) in vehicles that are deemed to be bio-secure (i.e. sealed so that no soil can escape) and all must be thoroughly pressure-washed in a designated wash-down area before exiting the infested area.

- Designated and clearly marked cleaning and/or disinfection stations will be strategically placed within the work site for use by staff, vehicles and machinery. All potentially contaminated wash material will be securely contained and disposed with the other IAPS material, or to a licensed facility, if required.
- Following control of IAPS, subsequent disturbance of the soil may give rise to a flush of seedling germination or revitalised rhizome growth. To avoid this, bare soil should be mulched (covered with a natural or synthetic barrier, such as wood chip, straw, geo-textile, or other appropriate material) and planted at the earliest opportunity with appropriate native replacement vegetation to stabilize the soil and deter subsequent re-invasion.
- When the treatment and eradiciation programme has been implemented regular monitoring of the site, over a number of years, is required and maintenance contractors must remain vigilant in their management of the site to prevent the establishment and spread of IAPS and to protect native biodiversity.
- Areas that have been treated in the past will be mapped and marked out on site.

13.3.3 Residual effects - Sea Buckthorn and biosecurity

Following the implementation of mitigation measures outlined the proposed development poses no risk of affecting the conservation objectives, or the conservation condition, of the QI habitats or species of Sheephaven Bay SAC and Horn Head to Fanad Head SPA. There are no residual direct or indirect impacts that could adversely affect the integrity of the Natura 2000 sites.

13.4 Noise and visual disturbance causing displacement of SCI species – Sea/ Waterbirds

Construction

There is a high level of activity and noise on a construction site. Sources include noise and activity from excavation machinery, increased human activity during construction processes and increased traffic to and from site. All this increased activity and noise will potentially have a significant impact on species using the adjacent coastal site through indirect habitat loss caused by disturbance. However, the majority of construction activity will be screened from sight due to its location within an existing car park, and surrounded by buildings. Construction activity on site will not be permanent and activity levels will vary greatly during the construction period. The proposals are small size and scale. Disturbance events are temporary in nature. The location of the facility and the path are set back from the beach. Works are low impact on the beach any disturbance is likely to be very localised.

Sandflats and mudflats are common around the area, so there is ample suitable alternative habitat in the surrounding area for temporarily displaced birds. It is reasonable to assume that during periods of low or no activity on site birds will continue to use the adjacent habitat as normal.

Operation

The activity within the completed development will be a source of disturbance; however this is not unusual for the area as it is a busy tourism destination. Findings by Torsney et al 2023, state that management practices should identify and appropriately manage the activities available at nature based destinations to reduce overall impacts. The research showed that 75% of all visitor observations resulted in no identifiable effects on the environment.

The normal intensity of activity during project operational phase will be significantly lower than that of the time-limited construction phase.

The facilities are within a town environment with street lighting.

There will be no change to the existing use and activity at the beach. Visitors will be provided with improved year round facilities.

Given the distances between the proposed project and the SPA the only sources for effect relate to disturbance effects introduced at Downings Bay beach from the construction and operational phase. The only SCI species identified on site were small numbers of cormorants and shags and therefore there are no significant effects identified from the implementation of the plan.

From the data presented it can be concluded that construction disturbance may cause a minor impact to other waterbirds and will not be permanent in nature. Areas that appear to be favoured by other water birds for foraging and roosting are separated from the project site by topography and are unlikely to be impacted any more than they are now by the development of the tourist facilities.

13.4.1 Mitigation Measures - noise and visual disturbance causing displacement of QI species sea/waterbirds

Construction and Operation

A Construction and Environmental Management Plan has been developed to protect beach and marine habitats during the construction phase of development.

In design mitigation

The location of the facility and car park are located outside the SPA, out of view of the beach, and tucked into the car park obscuring it from view.

13.4.2 Residual Effects -noise and visual disturbance causing displacement of SCI species - Waterbirds

Following the implementation of mitigation measures outlined the proposed development poses no risk of affecting the conservation objectives, or the conservation condition, of the QI habitats or species of Sheephaven Bay SAC and Horn Head to Fanad Head SPA. There are no residual direct or indirect impacts that could adversely affect the integrity of the Natura 2000 sites.

13.5 Reduction in species density

A reduction in species density in Sheephaven SAC and Horn Head to Fanad Head SPA would be as a consequence of habitat loss, sedimentation, pollution, release of contaminants and the introduction of invasive species, and disturbance, displacement or injury of a species at a critical time in their lifecycle e.g. winter feeding.

13.5.1 Mitigation measures - Reduction in species density

The mitigation measures detailed in sections 13.1-13.4 will also mitigate in this instance.

13.5.2 Residual effects - Reduction in species density

Following the implementation of mitigation measures outlined the proposed development poses no risk of affecting the conservation objectives, or the conservation condition, of the QI habitats or species of Sheephaven Bay SAC and Horn Head to Fanad Head SPA. There are no residual direct or indirect impacts that could adversely affect the integrity of the Natura 2000 sites

13.6 Habitat Fragmentation

Habitat fragmentation will not occur at the project site. Survey results and discussions have demonstrated that the location of the facility, car park, path are not used by QI or SCI species for foraging or roosting, neither are they used in any significant numbers by other water birds listed in the SPA documents. The project does not sever or block habitats or cause species to avoid favoured areas; it is within the already busy tourism area at Downings. The existing access route has been established for many years and is not a new path. Additional lighting is the only aspect that could cause any effects these are likely to be negligible, however best practice should be followed.

13.6.1 Mitigation measures - Habitat fragmentation

While many lighting solutions are possible, the following ideals should be adhered to:
The avoidance of direct lighting on trees, hedges shrubs, wildlife corridors such as stone walls. All lights should lack UV elements. Low-pressure sodium lights will be used in preference to high pressure sodium lights or mercury lamps. If mercury lamps are to be used, ultraviolet (UV) filters will be fitted.

Directional lighting – that is, lighting only at the intensity and direction it is needed. Cowled lighting will be used throughout, to direct light spill away from habitat.

Height of lighting columns – The lower the light column, the less light spillage. Height of light masts will be minimised; masts should be preferably below 3 m high.

Duration of lighting – Lights should only be on when in use or for health and safety purposes. The use of timers and sensors are ways of controlling this. Motion sensitive lighting where appropriate will be used.

13.6.2 Residual impacts – Habitat fragmentation

Following the implementation of mitigation measures outlined the proposed development poses no risk of affecting the conservation objectives, or the conservation condition, of the QI habitats or species of Sheephaven Bay SAC and Horn Head to Fanad Head SPA. There are no residual direct or indirect impacts that could adversely affect the integrity of the Natura 2000 sites

13.7 Climate change

The proposed works will not result in any greenhouse gas emissions to air during the operational phase. The construction phase works will have increased temporary emissions which will be localised however, given the distance to the nearest Natura 2000 site, these are determined to be negligible. Such effects upon greenhouse gas emissions will not affect changes projected to arise from climate change to the degree that it would affect the QIs or SCIs of the Natura 2000 sites considered.

Sand dunes provide natural coastal protection against storm surge and high waves and help prevent or reduce coastal flooding and structural damage to properties behind them. The preservation and strengthening of natural coastal defences, such as sand dune systems at Downings, plays an important role in increasing our coastal resilience to the impacts of climate change.

13.8 Flood risk

According to DCC knowledge of the site and floodmaps.ie, there is no history of flooding in the car park area. If coastal flooding were to occur the surface water drainage system will drain it away from site. The proposed gradient of the access route and the dunes also provide protection in the case of storm surge at high tides.

14.0 In-combination

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 Development Plan.

Any existing/proposed plan or project that could potentially affect Natura 2000 sites in Sheephaven Bay, 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.

There were no other planning application pending in the immediate vicinity of the project area at the time of writing, a list of the planning decisions over the past decade can be seen in appendix 3.

A NIS of the County Development Plan was carried out and it concluded that it is not foreseen to give rise to any adverse effects on the integrity of European Sites, alone or in combination with other plans or projects. The Plan has been formulated to ensure that uses, development and effects arising from developments, based upon the Plan (either individually or in combination with other plans or projects) shall not give rise to significant adverse impacts on the integrity of any Natura 2000 site.

The Strategic Environmental Assessment of the Plan was also carried out. The SEA process ensured that environmental considerations were suitably incorporated into the Plan as adopted. This SEA process will continue with the monitoring of environmental impacts of the implementation of the Plan. This will include ongoing monitoring and the carrying out of a progress report on the implementation of the Plan.

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 significant residual negative effects on the conservation objectives of any Natura 2000 sites, considering the lack of other development in the area, the environmental policies outlined above, and considering the mitigation measures described in appendix 5, it is not predicted to result in any negative in-combination effects with any other plans or projects.

15.0 Conclusion

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 development, alone or in-combination with other projects or plans, will result in adverse effects on the integrity of Sheephaven SAC and Horn Head to Fanad Head SPA, and includes any mitigation measures necessary to avoid or reduce the risk of negative effects.

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 Sheephaven SAC and Horn Head to Fanad Head SPA. There are no other Natura 2000 sites at risk of effects from the proposed development.

It has been objectively concluded from the examination and analysis of the proposed development, potential effects from same, and the mitigation measures outlined as presented in section 13 and appendix 5 of this report, that the development proposed by Donegal County Council will not adversely affect (either directly or indirectly) the integrity of Sheephaven SAC, Horn Head to Fanad Head SPA or any other Natura 2000 site, either alone or in combination with other plans or projects.

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Appendix 1. Site Synopses
SITE NAME: HORN HEAD TO FANAD HEAD SPA

SITE CODE: 004194

The Horn Head to Fanad Head SPA comprises a number of separate sections of the north Co. Donegal coastline stretching some 70 km eastwards from Dooros Point, south-west of Horn Head to just south of Saldanha Head, south of Fanad Head. The site includes the high coast areas and sea cliffs, land adjacent to the cliff edge and the sand dunes and lake at Dunfanaghy/Rinclevan. The high water mark forms the seaward boundary, except at Horn Head where the adjacent sea area to a distance of 500 m from the cliff base is included. Sea cliffs are present along virtually all the site. Almost all are greater than 10 m in height. They are often over 30 m and rise impressively to over 200 m in a few places. The geology consists of both metamorphic and igneous intrusive rocks. The metamorphic rocks are quartzites and schists. The igneous rocks are silica-rich granites and more the basic dolerites and granodiorites. A small low-lying peninsula of metamorphic limestone occurs at Cloonmass Point and Isle just north of the Ards peninsula.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Chough, Peregrine, Fulmar, Cormorant, Shag, Kittiwake, Guillemot, Razorbill, Greenland White-fronted Goose and Barnacle Goose. The site is also of special conservation interest for holding an assemblage of over 20,000 breeding seabirds.

The site holds an internationally important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 20 breeding pairs were recorded from the site in the 1992 survey and 29 in the 2002/03 survey. The sea cliffs on the site provide breeding and roosting sites for the birds whilst the land adjacent to the cliff tops provides feeding habitat. A number of areas slightly further from the coast are used for feeding or flocking, e.g. at Black Burrow near Dooros Point and at Melmore Lough on the Tranarossan Peninsula. The site also holds a large Peregrine population (5 pairs in 2002).

The site is also used by a large assemblage and wide variety of nesting seabirds, the cliffs around Horn Head being of particular importance. The site supports nationally important populations of Fulmar (1,974 pairs), Cormorant (79 pairs), Shag (110 pairs), Kittiwake (3,853 pairs), Guillemot (4,387 pairs) and Razorbill (4,515 pairs). Other species that occur include Black Guillemot (204 individuals), Puffin (189 pairs), Herring Gull (21 pairs), Great Black-backed Gull (5 pairs) and Common Gull (2 pairs) – all seabird data from 1999.

New Lake/Rinclevan and the dunes to the west (west-south-west of Dunfanaghy) support nationally important Greenland White-fronted Goose (231) and Barnacle Goose (187) populations - all figures are 5 year mean peaks, 1995/96-1999/2000. The Greenland White-fronted Goose flock has increased in size since the 1980s. These are considered to be the birds that formerly frequented blanket bog sites in vicinity of the Calabber River valley. The Barnacle Goose flock is part of an internationally important population that also uses the islands of Inishbofin and Inishdooey. The geese feed on the dune grassland and on intensive grassland. Whooper Swan (31) also occurs regularly, along with a range of other waterfowl species, notably Pochard (234), which are well suited to the shallow lake waters. Other species present include Teal (109), Mallard (87), Tufted Duck (93), Goldeneye (11), Mute Swan (67) and Coot (52) – all figures are 5 year mean peaks for the period 1995/96-1999/2000.

In summer, the site supports a good diversity of breeding waders. A survey in 2009 recorded the following: Lapwing (10 pairs), Snipe (6 pairs), Redshank (1 pair) and Oystercatcher (1 pair). A survey in 1996 also recorded Dunlin (6 pairs) and Common Sandpiper (2 pairs) at the site.

The Horn Head to Fanad Head SPA is of high importance for Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive. It also supports an internationally important assemblage of breeding seabirds, that includes nationally important populations of six species, i.e. Fulmar, Cormorant, Shag, Kittiwake,

Guillemot and Razorbill. The Greenland White-fronted Goose and Barnacle Goose populations are also of national importance. Both of these species, as well as Whooper Swan, are listed on Annex I of the E.U. Birds Directive. A good diversity of other wildfowl species occurs. Part of the Horn Head to Fanad Head SPA is a Wildfowl Sanctuary.

SITE NAME: SHEEPHAVEN SAC

SITE CODE: 001190

Sheephaven Bay is a north-facing bay, situated north of Creeslough on the north-west coast of Co. Donegal. The site occupies the entire inner part of the bay, and includes the intertidal area at Carrickgart. The bedrock geology of the site is quite varied, with schist (at least two types), quartzite and metadolerite present. The site receives the flows of a number of rivers, notably the Lackagh River, the Duntally River, the Faymore River and the Carrownamaddy River. The site contains a diversity of habitats ranging from mudflats, saltmarshes and sand dunes, to lakes, rivers, heath, scrub and woodland.

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):

[1140] Tidal Mudflats and Sandflats

[1210] Annual Vegetation of Drift Lines

[1230] Vegetated sea cliffs of the Atlantic and Baltic coasts

[1310] Salicornia Mud

[1330] Atlantic Salt Meadows

[1410] Mediterranean Salt Meadows

[2110] Embryonic Shifting Dunes

[2120] Marram Dunes (White Dunes)

[2130] Fixed Dunes (Grey Dunes)*

[2190] Humid Dune Slacks

[21A0] Machairs*

[91A0] Old Oak Woodlands

[1395] Petalwort (Petalophyllum ralfsii)

[1065] Marsh Fritillary (Euphydryas aurinia)

Extensive areas of intertidal sands and muds occur at the Back Strand, Ards Strand, Doo Castle Strand and at Carrickgart. Marble Hill Strand is a north-east facing beach on the west side of the bay. The sediment here is fine, well-sorted sand, and the communities present are representative of shores moderately exposed to wave action to sheltered from wave action. The rare hermit crab Diogenes pugilator is present at its most northerly record station in Ireland.

The site is particularly notable in a national context owing to its extensively vegetated intertidal zone. The sand-flats support one of the largest areas of vegetation dominated by Glasswort (*Salicornia europaea*) anywhere in Ireland and this is the largest extent of habitat known that is not affected by Common Cordgrass (*Spartina townsendii*), an invasive species that threatens this habitat. There are also excellent examples of unmodified zonation between pioneer vegetation through to upper marsh saltmarsh communities. The site is actively accreting and this is having a positive influence on the site.

Large areas of sand dune occur at Rosapenna and at Marble Hill. Annual vegetation of drift lines and embryonic shifting dunes are recorded at these sites, as well as at Ards and Glenree. The fore dunes are dominated by Marram (*Ammophila arenaria*), with abundant Red Fescue (*Festuca rubra*), and herbs such as Dove's-foot Crane's-bill (*Geranium molle*) and clovers (*Trifolium spp*.) occurring on the fixed dunes behind. Some areas of sand dune at Rosapenna have been damaged through agricultural improvement, and golf course development has also had an impact on the site. Dune slacks occur at Rosapenna in both the southern end (Glenree/Magheramagorgan), in the most extensive unmodified area of dune grassland and also in the northern end, where there is an interesting co-occurrence of dry dune grassland, fen and dune slack vegetation.

A small slack occurs at Marble Hill in the fixed dunes that slope down to the back strand at Clonmass. The slack area contains standing water and a drain from the surrounding land empties into it. The slack is dominated by the typical species Common Sedge (*Carex nigra*), Horsetail spp. (*Equisetum spp*.), Marsh Pennywort (*Hydrocotyle vulgaris*), Water Mint (*Mentha aquatic*), Silverweed (*Potentilla anserina*) and the moss *Calliergonella cuspidata*.

A relatively small area of sand dune machair occurs on flat to gently undulating ground behind the dune system, to the north-west of Carrigart village. Typical species such as Red Fescue, Ribwort Plantain (*Plantago lanceolata*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Daisy (*Bellis perennis*) are present. The machair displays an interesting gradation to saltmarsh vegetation.

An extensive area of saltmarsh occurs at Back Strand, with further areas at Ards Strand and to the west of Carrigart village. A variety of sedges (*Carex spp*.) and rushes (*Juncus spp*.) occur, including Distant Sedge (*Carex distans*) and Sea Rush (*Juncus maritimus*), along with Thrift (*Armeria maritima*) and Sea Aster (*Aster tripolium*).

Almost 3 km of sea cliffs are found within the site, with notable cliffs at Clonmass, Breaghy, Clonmass Isle and Ards. These are vegetated cliffs with crevices and ledges, and they appear not to have experienced modification due to human activities.

The site includes several areas of woodland. Creeslough Wood consists of a range of deciduous trees, such as oak (*Quercus sp*.), Holly (*Ilex aquifolium*) and Hazel (*Corylus avellana*), but Downy Birch (*Betula pubescens*) is also a common tree. Ards Forest Park includes areas of deciduous woodland and conifer plantation. Rhododendron (*Rhododendron ponticum*) is widespread in parts of the wood. Two rare species of Myxomycete fungus have been recorded from Ards, namely *Cribraria rufa* and *Stemonitopsis hyperopta*.

The rare liverwort, Petalwort (*Petalophyllum ralfsii*), a species that is listed on Annex II of the E.U. Habitats Directive, has been recorded from this site.

The Marsh Fritillary (*Euphydryas aurinia*), an E.U. Habitats Directive Annex II and red-listed butterfly, is known from suitable habitat (machair and dune grassland with Devil's bit Scabious (*Succisa pratensis*) at Ards and Carrigart and it may occur elsewhere. The habitats at Ards support a notable butterfly assemblage including one the most northern sites for the Cryptic Wood White (*Leptidea juvernica*) in Ireland. In total 21 species are known, including the red listed and near-threatened species Small Blue (*Cupido minimus*), Dark Green Fritillary (*Argynnis aglaja*), Grayling (*Hipparchia semele*) and Small Heath (*Coenonympha pamphilus*). The following red-

listed and near threatened terrestrial molluscs are known from the site: *Pupilla muscorum, Helicella itala, Leiostyla anglica, Vertigo antivertigo, Vertigo pygmaea* and *Vertigo substriata.*

The intertidal mud and sandflats support moderate numbers of waterfowl in autumn and winter. These include Shelduck (75), Wigeon (414), Teal (129), Mallard (117), Oystercatcher (155), Ringed Plover (48), Dunlin (107) and Curlew (86) (data from 1984/85-86/87 period). The site is sometimes used by the population of Barnacle Goose which is centred at the New Lake at Dunfanaghy. This flock numbers up to 300. Barnacle Goose is listed on Annex I of the E.U. Birds Directive. Other Annex I species associated with the site are Chough (2 possible breeding pairs), Peregrine (occasional visitor) and Common Tern. Terns have not been recorded breeding in recent years, though suitable habitat exists. Part of the site is a Wildfowl Sanctuary.

The site is of particular conservation significance for the presence of good examples of several habitats listed on Annex I of the E.U. Habitats Directive and for the important bird populations it supports.

Appendix 2. Natura 2000 sites initial screening

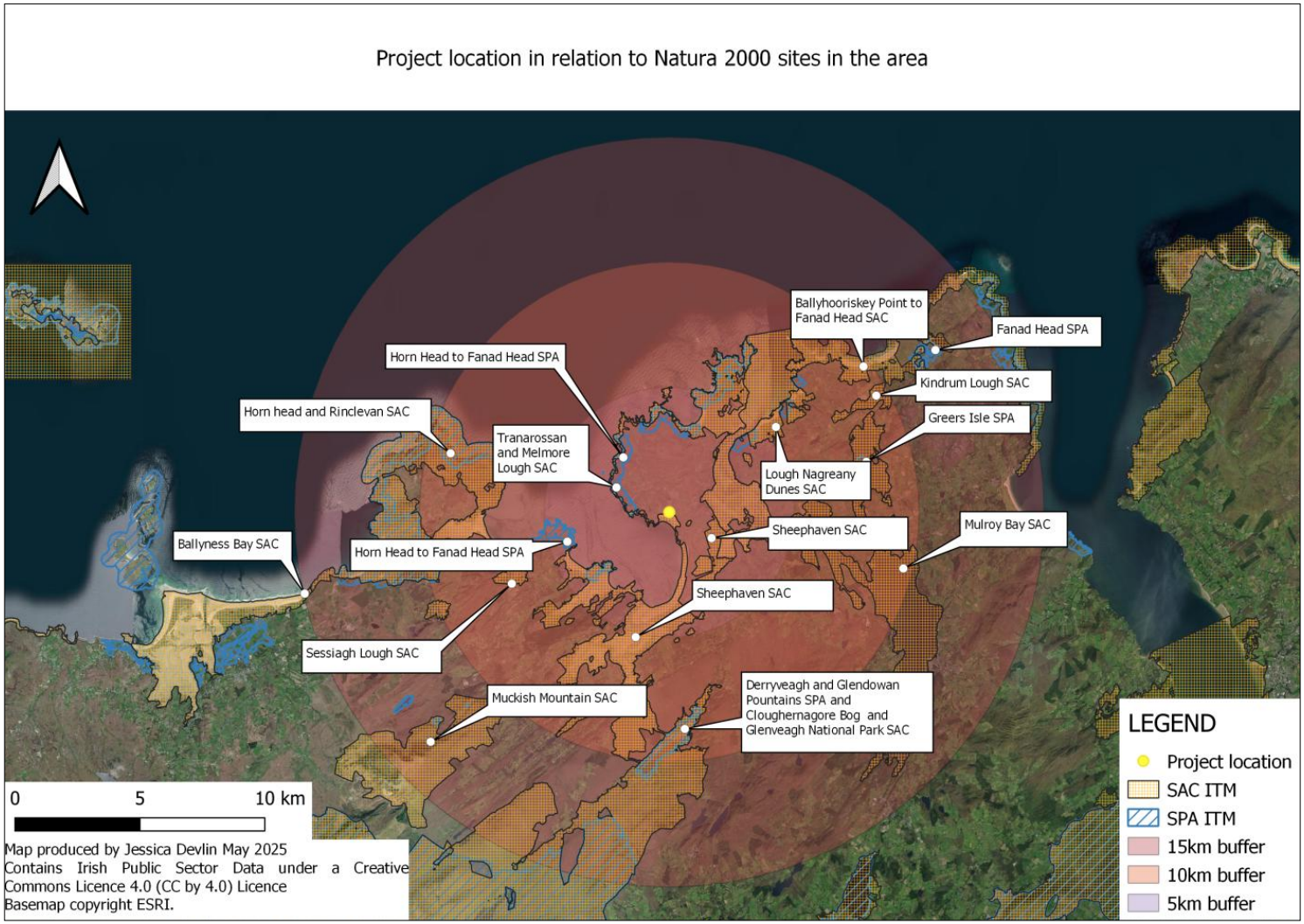

Figure 1. Project location in relation to Natura 2000 sites within a 15km radius.

Site Name (Site Code)	Distance To (m)	Qualifying Interests (* denotes a priority habitat)	Assessment
Sheephaven SAC (001190)	22.72	**Habitats** 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles **Species** 1065 Marsh Fritillary *(Euphydryas aurinia)* 1395 Petalwort *(Petalophyllum ralfsii)*	Potential Impact: Mudflats and Sandflats directly adjacent to the project area. Dune habitats also present along the beach. Screened IN
Tranarossan and Melmore Lough SAC (00194)	578.03	**Habitats** 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.

		Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2140 Decalcified fixed dunes with Empetrum nigrum* 2170 Dunes with Salix repens ssp. argentea (Salicion arenariae) 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. 4030 European dry heaths 4060 Alpine and Boreal heaths **Species** 1395 Petalwort *(Petalophyllum ralfsii)*	
Mulroy Bay SAC (002159)	1321.75	**Habitats** 1140 Mudflats and sandflats not covered by seawater at low tide 1160 Large shallow inlets and bays 1170 Reefs **Species** 1355 Otter *(Lutra lutra)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Lough Nagreany Dunes SAC (00164)	3680.31	**Habitats** 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2140 Decalcified fixed dunes with Empetrum nigrum* 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)* 2170 Dunes with Salix repens ssp. argentea (Salicion arenariae) 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 3130 Oligotrophic to mesotrophic standing waters	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.

		with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea **Species** 1833 Slender Naiad *(Najas flexilis)*	
Sessiagh Lough SAC (00185)	6153.12	**Habitats** 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea **Species** 1833 Slender Naiad *(Najas flexilis)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Horn Head and Rinclevan SAC (00147)	6260.93	**Habitats** 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2170 Dunes with Salix repens ssp. argentea (Salicion arenariae) 2190 Humid dune slacks 21A0 Machairs (* in Ireland) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea **Species** 1013 Geyer's Whorl Snail *(Vertigo geyeri)* 1364 Grey Seal *(Halichoerus grypus)* 1395 Petalwort *(Petalophyllum ralfsii)* 1833 Slender Naiad *(Najas flexilis)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Cloghernagore Bog and Glenveagh National Park SAC (002047)	6991.78	**Habitats** 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 4010 Northern Atlantic wet heaths with Erica tetralix	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.

		4030 European dry heaths 4060 Alpine and Boreal heaths 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7130 Blanket bogs (* if active bog) 7150 Depressions on peat substrates of the Rhynchosporion 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles **Species** 1029 Freshwater Pearl Mussel *(Margaritifera margaritifera)* 1106 Salmon *(Salmo salar)* 1355 Otter *(Lutra lutra)* 1421 Killarney Fern *(Trichomanes speciosum)*	
Ballyhoorisky Point to Fanad Head SAC (001975)	7443.98	**Habitats** 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea 3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. **Species** 1014 Narrow-mouthed Whorl Snail *(Vertigo angustior)* 1833 Slender Naiad *(Najas flexilis)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Kindrum Lough SAC (001151)	7520.63	**Habitats** 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea **Species** 1833 Slender Naiad *(Najas flexilis)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Muckish	9750.01	**Habitats**	No potential for significant impacts or effects. Project

Mountain SAC (001179)		4060 Alpine and Boreal heaths 8220 Siliceous rocky slopes with chasmophytic vegetation	will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Ballyness Bay SAC (001090)	14652.78	**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 Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks **Species** 1013 Geyer's Whorl Snail *(Vertigo geyeri)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. No Source - Pathway - Receptor relationship. Screened OUT.
Horn Head to Fanad Head SPA (004194)	1305.84	**Birds** A009 Fulmar *(Fulmarus glacialis)* A017 Cormorant *(Phalacrocorax carbo)* A018 Shag *(Phalacrocorax aristotelis)* A045 Barnacle Goose *(Branta leucopsis)* A103 Peregrine *(Falco peregrinus)* A188 Kittiwake *(Rissa tridactyla)* A199 Guillemot *(Uria aalge)* A200 Razorbill *(Alca torda)* A346 Chough *(Pyrrhocorax pyrrhocorax)* A395 Greenland White-fronted Goose *(Anser albifrons flavirostris)*	Potential for significant impacts and effects if the beach is used as hinterland habitat for SCI species. Further investigation required to establish if Source - Pathway - Receptor relationship exists. SCREENED IN.
Greers Isle SPA (004082)	7751.24	**Birds** A179 Black-headed Gull *(Chroicocephalus ridibundus)* A182 Common Gull *(Larus canus)* A191 Sandwich Tern *(Sterna sandvicensis)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. Sufficient distance away. No Source - Pathway - Receptor relationship. Screened OUT.
Derryveagh and Glendowan Mountains SPA	7794.22	**Birds** A001 Red-throated Diver *(Gavia stellata)* A098 Merlin *(Falco columbarius)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. Sufficient distance

(004039)		A103 Peregrine *(Falco peregrinus)* A140 Golden Plover *(Pluvialis apricaria)* A466 Dunlin *(Calidris alpina schinzii)*	away. No Source - Pathway - Receptor relationship. Screened OUT.
Fanad Head SPA (004148	11431.3	**Birds** A122 Corncrake *(Crex crex)*	No potential for significant impacts or effects. Project will not interfere with the structure or functioning of the site or its qualifying interests. Sufficient distance away. No Source - Pathway - Receptor relationship. Screened OUT.

Table 1. Initial Screening of Natura 2000 sites within 15km radius of project area.

Appendix 3. Planning history

Planning authority	Planning application reference	Description of proposed development	Development address	Application status	Type of application	Final decision on application
Donegal county council	1950423	1. Change of use of existing unused building to childrens indoor play area. 2. Construction of an extension at ground floor level. 3. Construction of an additional floor to provide TV room at first floor level including raising of roof and associated site works	Crocknamurleog , Downings , Letterkenny P.O.	Application finalised	Extension of duration	Unconditional
Donegal county council	1651378	Construction of a new building to contain a shower block and children's playroom including associated site works to serve existing caravan park	Crocknamurleog , Downings , Letterkenny P.O.	Application finalised	Permission	Conditional
Donegal county council	2250423	(1) renovation and refurbishment of existing dwelling house (2)construction of a single story extension and garage to the rear (3)demolition of existing outhouses (4) alteration and replacement of existing windows and doors	Crocknamurleog , Downings , Letterkenny P.O.	Application finalised	Permission	Conditional
Donegal county council	1650491	Athchóiriú inmheánamh agus seachtrach a dhéanamh ar an fhoirgneach atá ann cheanna féin chun dhá seomra feistis, seomraí réiteoir, seomraí leithreais agus forhalla úr a chur a fáil chomh mhaith le oibreacha láithreán. To carry out internal and external renovation of the existing building itself to provide two new channel rooms, referee rooms, toilet rooms and a new lobby as well as site works	Leargain Riabhach , na Dúnaibh , Co Dún na nGall	Application finalised	Permission	Conditional
Donegal county council	2460791	Fiche láthair breise a sholáthar dó veain champála turasóireachta chomh maith le oibreachta láithreán gaolmhara Providing twenty additional sites for tourist camping van as well as the operation of related sites	Leargain Riabhach , na Dúnaibh , Leitir Ceanainn	Application finalised	Permission	Conditional
Donegal county council	1751359	Ardán a thógáil chomh mhaith le oibreacha láithreán gaolmhara Build a platform as well as related site works	Leargain Riabhach , na Dúnaibh , Co. Dún na nGall	Application finalised	Permission	Conditional
Donegal county	1650596	Fál breathnóir a thógáil thart ar imlíne na pháirc peile chomh maith le oibreacha láithreán comhphairtí	Leargain Riabhach , na Dúnaibh , Co. Dún	Application finalised	Permission	Conditional

council		Construction of a spectator fence around the perimeter of the football field as well as associated site works	na nGall			
Donegal county council	2051578	Déanfar 6 thuilsolas, 15m ar airde, comh maith le fálú teroann a chur timpeall na páirce peile atá ansin faoi láthair, lena mbeidh oibreacha láithreáin ag baint leis. Tá stair ag baint leis an iarratas seo mar go ndearnadh tuilsoilse agus fálú teorann a cheadú don pháirc seo ag leargain riach, na dúnaibh, cheana fhéin faoin iarratas pleanála 06/50340 6 flooring lights, 15m high, as well as border fence will be installed around the existing football pitch, which will be involved in site works. There is history to this application as floorlights and border fence have already been approved for this pitch at lergain riach, doon, under a planning application	Leargain Riabhach , na Dúnaibh , Co. Dún na nGall	Application finalised	Permission	Conditional
Donegal county council	1750004	Choinne fál a thógáil ar bharr an bhalla atá ann faoi láthair chomh mhaith le oibreacha láithreán comhphairtí Construction of a fence on top of the existing wall as well as partner site works	Leargain Riabhach , na Dúnaibh , Co. Dún na nGall	Application finalised	Permission	Refused
Donegal county council	2252085	Alterations to elevations namely altering the size, location and style of some existing windows and providing new windows to offices and carrying out internal alterations	Downies , Downings , Letterkenny P.O.	Application finalised	Permission	Conditional

Table 1. Planning Applications in the project area over the past decade.

Appendix 4. Bird data

I-Webs

National and International Thresholds of importance

The data are presented alongside *1% level for All-Ireland and International importance*. This enables an assessment of the importance of a site in a wider context. A wetland is considered important in an all-Ireland context if it regularly holds 1% or more of one species, subspecies or population of waterbirds occurring in Ireland, and of international importance if it regularly supports the same proportion of the relevant international, or flyway, population. Normally, this is measured by calculating the five-year mean of annual peak counts for each species and expressing this as a percentage of the all-Ireland/international populations. Where 1% of the national population is less than 20 birds, 20 is normally used as the minimum qualifying level for the designation of sites.

It is necessary to bear in mind the distinction between sites that regularly hold wintering numbers of all-Ireland/international importance and those which may happen to exceed the appropriate qualifying levels only in occasional winters. This follows the recommendations of the Ramsar Convention which states that key sites identified because of the numbers of birds should support such numbers on a regular basis (usually calculated as the mean winter maximum from the last five winters).

Sites which only occasionally support significant numbers may be important at certain times, e.g. when numbers in Ireland are high, during the main migratory periods, during cold weather, or when sites may act as refuges for birds away from traditionally used sites. Further, sites not of international or all-Ireland importance may nevertheless be of regional importance, especially in areas with relatively small waterbird populations. Sites which support significant numbers of only one species may be of crucial importance to that population and therefore of very high conservation value.

Weather conditions	Surveyor	Date	Time Arrival	Time Survey Starts	Time Survey Ends
SSW bt.4, cloud 2/8 , dry.	Jamiebliss	10/24/2020 11:00:00 AM	10:20	10:30	13:30
NW5, occ. Showers, vis good, 6/8	Jamiebliss	10/26/2020 12:00:00 PM	13:20	13:35	16:35
S2, vis good , 8/8	Jamiebliss	11/15/2020 3:52:15 PM	07:55	08:05	11:05
S2, vis good, 8/8-7/8, 2 light rain showers	Jamiebliss	11/15/2020 4:17:00 PM	07:55	11:35	14:35
Vis good, wind:N5-4, 8/8-7-8, one heavy rain shower 11:15to11:27	Jamiebliss	12/05/2020 12:28:29PM	09:00	09:10	12:10
Vis good,wind;N4-3,occasional rain showers, 8/8-7/8	Jamiebliss	12/05/2020 15:41:15 PM	09:00	12:40	15:40
Wind;NNW 3,Cloud; 8/8, Rain; occasional rain, hail, sleet shower	Jamiebliss	1/22/2021 12:00:00 PM	10:20	10:30	13:30
Wind NNW 3, Cloud 8/8, Rain Occasional rain ,sleet showers.	Jamiebliss	1/22/2021 5:51:26 PM	10:20	14:00	17:00
Wind NNW 3, Cloud 8/8, Rain Occasional rain ,sleet showers.	Jamiebliss	1/22/2021 5:51:26 PM	10:20	14:00	17:00
Wind: S 3 , Cloud: 7/8, Rain: occ.showers, Temp 5c	Jamiebliss	2/18/2021 12:00:00 PM	09:33	09:45	13:15
Wind:SW to W 3, Rain: Occ. Showers, Cloud 6/8, Temp: 7c	Jamiebliss	2/18/2021 12:00:00 PM	09:33	13:15	16:15
Wind:North 3, rain: none, temp: 9, vis good	Jamiebliss	3/19/2021 7:12:01 PM	11:32	11:45	14:45
Wind: north3, Rain: none, Temp 9, vis good	Jamiebliss	3/19/2021 7:18:14 PM	11:32	15:15	18:15

Table 1. Downings 2020/21 bird survey effort

Site	BTO Code + Number Recorded	Habitat Description	Tidal Conditions	Comments
Downings, January, Foraging 1	OC57, CU48	Semi improved grassland	High	
Downings, January, Foraging 2	OC2	Freshwater outflow on to sandy beach	High	
Downings, January, Foraging 3	OC43	Sandy beach	High	
Downings, January, Foraging 4	SS17	Sandy beach	High	
Downings, January, Foraging 5	CM31	Semi improved grassland	High	
Downings, January,	TY1, ND4, BH1, HG4,	Salt water bay	High	

Foraging 6	CM6			
Downings, January, Foraging 7	OC61, CU24	Semi improved grassland	High	
Downings, January, Foraging 8	OC35	Sandy beach	High	
Downings, January, Foraging 9	HG3, BH1, ND6	Salt water bay		
Downings_February_ Foraging_1	OC9	Sandy beach	High	
Downings_February_ Foraging_2	OC9, CU1	Semi improved grassland		
Downings_February_ Foraging_3	HG11, SA1, ND6, TY1	Salt water bay		
Downings_February_ Foraging_4	OC59	Semi improved grassland	Mid Tide	
Downings_February_ Foraging_5	OC38	Sandy beach	Mid Tide	
Downings_February_ Foraging_6	CA2, ND3, HG2, BH1, CM2	Salt water bay	Mid Tide	
Downings_March_Foraging_1	ND4, SA4, RH2, RA7, CA1, HG2, BH3,	Salt water bay	Mid Tide	
Downings_March_Foraging_2	OC12, CM1	Sandy beach	Low	
Downings_March_Foraging_3	OC4, CM3	Sandy beach	Low	
Downings_March_Foraging_4	CM46, GB1, OC19, HG2, LB1	Sandy beach	Low	
Downings_March_Foraging_5	OC31, CM6, HG1, BH3	Sandy beach	Low	
Downings_March_Foraging_6	TY1, RH2, RA1, CA1, HG2, MA2	Salt water bay	Low	
Downings_Foraging1_october	OC1	Sandy beach	High	24/10/2020
Downings_Foraging2_october	SS45, RP3	Sandy beach	High	24/10/2020

Downings_Foraging3_october	CU38, L.28, OC34	Amenity grass(football pitches)	High	24/10/2020
Downings_Foraging4_october	ND1, HG3, SA2, TY1	Salt water bay	High	24/10/2020
Downing_Foraging5_OCTOBER	HG1	Sandy beach	High	Bird disturbed by dog walker, onto water.
Downing_Foraging6_OCTOBER	CU12	Improved grassland	High	13:54
Downing_Foraging7_OCTOBER	OC34	Sandy beach	High	15:36
Downing_Foraging8_OCTOBER	SS10	Sandy beach	High	15:48
Downing_Foraging9_OCTOBER	BH1, GB1, CU1	Sandy beach	High	15:56 - 16:10
Downing_Foraging10_OCTOBER	ND1, CM1, SA1, TY1	Salt water bay	High	
Downing_Foraging1_november	OC16, CU31	Sandy beach	High	
Downing_Foraging2_november	BH22, CM5, CU3, OC1	Amenity grass	High	
Downing_Foraging3_november	BH1, OC25, H.1, GB1	Sandy beach	Mid Tide	
Downing_Foraging4_november	OC12, BH1, CM1	Sandy beach with freshwater outflow and rocky outcrop	Mid Tide	
Downing_Foraging5_november	H.1	Stoney shore	Low	
Downing_Foraging6_november	SS5,ND4, HG2, BH3	Salt water bay	Mid Tide	Hg, bh, Foraging in the bay, dip diving along tide line for the duration of survey. 1 common seal.
Downing_Foraging7_november	OC25, BH7, CM7, GB2, HG1	Sandy beach	Low	
Downing_Foraging8_november	OC5, HG1, BH1	Sandy beach	Low	
Downing_Foraging9_november	GB1, HG3	Sandy beach	Low	
Downing_Foraging10_november	CU18	Semi improved grassland	Low	

Downing_Foraging11_november	ND4, SA3, RH1, CA1, BH3, CM2, HG3	Salt water bay	Mid Tide	Gulls were Foraging over water and dip diving along waterline. 1 harbour porpoise.
Downings, Foraging 1,December	Cm55, CU27	Semi improved grassland	High	
Downings, Foraging 2,December	HG2, CU1, OC5, CM1	Sandy beach	High	Seaweed washed up on high tide line. Seaweed not been present on previous surveys
Downings, Foraging 3,December	OC40	Football pitches, amenity grass	High	OC moving from roost 1 to pitches and flying up and back down to pitches, presumably Foraging on pitches
Downings, Foraging 4,December	CM9, BH1	Sandy beach	Mid Tide	Foraging on tide line. Dropping tide
Downings, Foraging 5,December	ND2, SA3, CA1, HG2, BH2	Salt water bay	Mid Tide	HG2, BH2 Foraging in over water
Downings, Foraging 6,December	CU1, HG1	Rocky outcrop onto sandy beach	Mid Tide	
Downings, Foraging 7,December	CM9, OC14, HG4, GB2, BH2	Sandy beach	Mid Tide	Foraging amongst washed up seaweed
Downings, Foraging 8,December	CM15, CU25	Semi improved grassland	Mid Tide	
Downings, Foraging 9,December	OC27, CM9	Sandy beach	Mid Tide	7 OC Arrived at 14:07. 20 OC arrived at 14:43
Downings, Foraging 10,December	ND1, SA1, TY1			

Table 2. Downings Survey data 2020/21

Date	Surveyor	Survey Method	VP/transect No	Start Time	End time	Hight Tide or Low Tide Count	Low Tide time	High Tide Time	Wind Direction	Wind Speed	Cloud Cover (%)	Visibility	Rain	Frost	Snow
30/10/2024	DM	Waterbird Survey	1	10:20	12:40	LT	10:21	16:42	S	2	4	5	1	1	1
31/10/2024	DM	Waterbird Survey	2	15:10	17:00	HT	10:56	17:15	SW	2	4	5	1	1	1
09/11/2024	DM	Waterbird Survey	3	10:10	12:30	HT	04:27	11:07	SE	1	2	5	1	1	1
18/11/2024	DM	Waterbird Survey	4	13:00	15:30	LT	12:59	19:20	E	3	4	4	3	1	1
04/12/2024	DM	Waterbird Survey	5	13:00	15:30	LT	13:29	19:56	S	4	4	4	2	1	1
22/12/2024	DM	Waterbird Survey	6	09:40	11:50	HT	04:08	10:33	W	3	4	5	1	1	1
04/01/2025	DM	Waterbird Survey	7	14:30	16:40	LT	14:50	21:14	E	2	4	5	1	2	1
22/01/2025	DM	Waterbird Survey	8	10:50	13:00	HT	05:08	11:31	N	2	3	5	1	1	1
06/02/2025	DM	Waterbird Survey	9	11:20	13:15	HT	05:22	11:57	SE	2	1	5	1	1	1
17/02/2025	DM	Waterbird Survey	10	14:20	16:15	LT	14:35	20:56	SE	3	3	5	1	1	1
07/03/2025	DM	Waterbird Survey	11	10:35	12:40	HT	05:04	11:46	E	1	2	5	1	1	1
18/03/2025	DM	Waterbird Survey	12	13:35	15:50	LT	13:58	20:19	SE	3	4	5	1	1	1

Table 3. Downings 2024/25 bird survey effort.

Figure 1. 2024-25 Downings Survey Area 500m (blue) – c.800m (purple) buffer.

Survey date	Transect No	Observation No	Species	BTO code	Number	Habitat	Comments
30/10/2024	1	1	Herring Gull	HC	3	GA1	Loafing
30/10/2024	1	2	Great Black-Backed Gull	GB	1	GA1	Loafing
30/10/2024	1	3	Curlew	CU	16	LS3	Foraging
30/10/2024	1	4	Great Northern Diver	ND	1	MW3	Loafing
30/10/2024	1	5	Oyster Catcher	OC	5	LS3	Foraging
30/10/2024	1	6	Cormorant	CA	1	MW3	Foraging
30/10/2024	1	7	Ringed Plover	RP	2	LS3	Foraging
30/10/2024	1	8	Blacked Headed Gull	BH	4	MW3	Loafing
31/10/2024	2	1	Common Gull	CM	11	GA1	Loafing
31/10/2024	2	2	Herring Gull	HG	3	GA1	Loafing
31/10/2024	2	3	Oystercatcher	OC	7	GA1	Foraging
31/10/2024	2	4	Cormorant	CA	1	MW2	Foraging
31/10/2024	2	5	Cormorant	CA	1	MW2	Foraging
31/10/2024	2	6	Sanderling	SS	4	LS2	Roosting
31/10/2024	2	7	Ringed Plover	RP	2	LS2	Roosting
31/10/2024	2	8	Curlew	CU	9	LS2	Roosting
09/11/2024	3	1	Curlew	CU	7	GA1	Foraging
09/11/2024	3	2	Common Gull	CM	28	GA1	Roosting
09/11/2024	3	3	Herring Gull	HG	7	GA1	Roosting
09/11/2024	3	4	Oystercatcher	OC	9	GA1	Foraging
09/11/2024	3	5	Shag	SA	1	MW2	Foraging
09/11/2024	3	6	Cormorant	CA	1	MW2	Foraging
09/11/2024	3	7	Sanderling	SS	29	LS2	Roosting
09/11/2024	3	8	Ringed Plover	RP	8	LS2	Roosting
09/11/2024	3	9	Oystercatcher	OC	7	LS2	Roosting

18/11/2024	4	1	Sanderling	SS	11	LS3	Foraging
18/11/2024	4	2	Curlew	CU	9	LS3	Foraging
18/11/2024	4	3	Cormorant	CA	1	MW2	Foraging
18/11/2024	4	4	Great Northern Diver	ND	1	MW2	Foraging
18/11/2024	4	5	Ringed Plover	RP	6	LS3	Foraging
18/11/2024	4	6	Herring Gull	HG	5	LS3	Loafing
18/11/2024	4	7	Common Gull	CM	4	LS3	Loafing
18/11/2024	4	8	Oystercatcher	OC	7	LS3	Foraging
04/12/2024	5	1	Herring Gull	HG	11	LS2	Loafing
04/12/2024	5	2	Common Gull	CM	39	GA1	Loafing
04/12/2024	5	3	Greater Black Backed Gull	GB	2	LS2	Loafing
04/12/2024	5	4	Cormorant	CA	1	MW2	Foraging
04/12/2024	5	5	Shag	SA	2	MW2	Foraging
04/12/2024	5	6	Oystercatcher	OC	31	LS3	Foraging
04/12/2024	5	7	Herring Gull	HC	6	LS3	Loafing

22/12/2024	6	1	Common Gull	CM	31	CP1	Foraging
22/12/2024	6	2	Curlew	CU	5	GS1	Foraging
22/12/2024	6	3	Oystercatcher	OC	4	GS1	Foraging
22/12/2024	6	4	Oystercatcher	OC	6	GH1	Foraging
22/12/2024	6	5	Cormorant	CA	1	MW2	Foraging
22/12/2024	6	6	Shag	SA	1	MW2	Foraging
22/12/2024	6	7	Sanderling	SS	31	LS2	Roosting
22/12/2024	6	8	Oystercatcher	OC	7	LS2	Roosting
22/12/2024	6	9	Great Norther Diver	ND	1	MW2	Foraging
22/12/2024	6	10	Cormorant	CA	1	MW2	Foraging
04/01/2025	7	1	Mallard	MA	2	MW2	Loafing

04/01/2025	7	2	Shag	SA	1	MW2	Foraging
04/01/2025	7	3	Red Throated Diver	RH	1	MW2	Foraging
04/01/2025	7	4	Common Gull	CM	32	LS3	Loafing
04/01/2025	7	5	Herring Gull	HG	6	LS3	Loafing
04/01/2025	7	6	Curlew	CU	7	GS1	Foraging
04/01/2025	7	7	Oystercatcher	OC	9	GS1	Foraging
04/01/2025	7	8	Oystercatcher	OC	25	LS3	Loafing

22/01/2025	8	1	Curlew	CU	9	GS1	Foraging
22/01/2025	8	2	Oystercatcher	OC	12	GS1	Foraging
22/01/2025	8	3	Shag	SA	3	MW2	Foraging
22/01/2025	8	4	Cormornat	CA	1	MS2	Foraging
22/01/2025	8	5	Curlew	CU	16	LS2	Roosting
22/01/2025	8	6	Common Gull	CM	29	LS2	Foraging
22/01/2025	8	7	Oystercatcher	OC	54	LS2	Foraging
22/01/2025	8	8	Great Northern Diver	ND	1	M	Foraging
22/01/2025	8	9	Sanderling	SS	31	LS2	Roosting
05/02/2025	9	1	Curlew	CU	13	GA1	Foraging
05/02/2025	9	2	Common Gull	CM	36	GA1	Foraging
05/02/2025	9	3	Lapwing	L	23	GS2	Foraging
05/02/2025	9	4	Oystercatcher	OC	26	GA1	Foraging
05/02/2025	9	5	Shag	SA	1	MW2	Foraging
05/02/2025	9	6	Cormorant	CA	1	MW2	Foraging
05/02/2025	9	7	Curlew	CU	23	LS2	Roosting
05/02/2025	9	8	Oystercatcher	OC	32	LS2	Roosting
05/02/2025	9	9	Red Throated Diver	RH	1	MW2	Foraging

17/02/2025	10	1	Common Gull	CM	39	LS3	Loafing

17/02/2025	10	2	Herring Gull	HG	6	LS3	Loafing
17/02/2025	10	3	Cormorant	CA	1	MW2	Foraging
17/02/2025	10	4	Great Northern Diver	ND	1	MW2	Foraging
17/02/2025	10	5	Cormorant	CA	2	MW2	Foraging
17/02/2025	10	6	Oystercatcher	OC	13	LS3	Loafing
17/02/2025	10	7	Curlew	CU	3	GS1	Foraging
17/02/2025	10	8	Herring Gull	HG	2	GA1	Loafing
17/02/2025	10	9	Lapwing	L	14	GS1	Foraging
07/03/2025	11	1	Common Gull	CM	24	GA1	Foraging
07/03/2025	11	2	Curlew	CU	16	GA1	Foraging
07/03/2025	11	3	Lapwing	L.	9	GS1	Foraging
07/03/2025	11	4	Oystercatcher	OC	6	GS1	Foraging
07/03/2025	11	5	Oystercatcher	OC	7	GA1	Foraging
07/03/2025	11	6	Shag	SA	1	MW2	Foraging
07/03/2025	11	7	Cormorant	CA	1	MW2	Foraging
07/03/2025	11	8	Curlew	CU	17	LS1	Roosting
07/03/2025	11	9	Oystercatcher	OC	19	LS1	Roosting
07/03/2025	11	10	Sanderling	SS	29	LS2	Roosting
18/03/2025	12	1	Curlew	CU	8	GS1	Foraging
18/03/2025	12	2	Curlew	CU	26	GA1	Foraging
18/03/2025	12	3	Common Gull	CM	24	LS3	Loafing
18/03/2025	12	4	Herring Gull	HG	3	LS3	Loafing
18/03/2025	12	5	Cormorant	CA	1	MW2	Foraging
18/03/2025	12	6	Cormorant	CA	1	MW2	Foraging
18/03/2025	12	7	Shag	SA	1	MW2	Foraging

Table 4. Downings survey data 2024/25

Appendix 5. Mitigation measures

The project has been designed in cognisance of the SAC and SPA adjacent to the site. A number of in-design/avoidance mitigation has also been incorporated into the project.

A Construction and Environmental Management Plan has been submitted with the planning application.

NPWS will be consulted prior to implementation of measures and in advance of works commencing.

A full suite of site specific mitigation measures are detailed in tables 1 and 2.

NOTE MITIGATION FOR ALL ECOLOGICAL AND NATURA 2000 aspects have been included in the table to ensure continuity across the project.

In-design mitigation / avoidance

In selecting potential locations and sites, Fáilte Ireland conducted a detailed assessment of environmental considerations in order to take account of any potential environmental or ecological issues, concerns, constraints and/or opportunities at each prospective location.

A traffic light system categorised the locations according to the following criteria:

Green Mild No obvious ecological constraints

Amber Ecologically sensitive site with potential to be managed appropriately*.

Deep Amber Ecologically sensitive site which may provide supporting habitat for protected species.

Red Clear ecological constraints are evident

The constraints matrix focused on ecological sensitivities but also considered planning issues such as archaeology, scenery, traffic and/or water services.

The existence of hard surfaced areas and infrastructure on site promoted a favourable outcome; this was derived from the Wild Atlantic Way (WAW) monitoring programme data which identified that serviced and/or managed sites have less impacts associated with them.

Downings Strand was characterised as an Amber site and was chosen to proceed.

The location of the facility and car park is located outside the Natura 2000 network. The path leads on to the beach which is within Sheephaven SAC.

A construction and environmental management plan has been developed which includes a suite of mitigation measures including: erosion and sediment controls, management of hazardous materials and dune protection measures.

Operation

Back up pumps as well as alarms for grey water, wastewater, and surface water treatment facilities are proposed, which will connect to the mains system.

Dune management and protection measures are proposed.

Preconstruction survey	**Location**	**Survey objective**	**Survey timing/seasonality**	**Licence required for survey?**
Invasive Alien Plant Species survey	Entrance to the beach	Determine Extent of Sea Buckthorn	Anytime. Autumn best when berries are visible.	No

Table 1. Preconstruction surveys

Source	**Pathway**	**Receptor**	**Mitigation Measure**
Site management	Construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	NPWS will be contacted prior to commencement. Site access and management. Works will be overseen by a qualified engineer/ architect and a Clerk of Works will be appointed. All mitigation measures will be incorporated into method statements of the appointed contractor. Training will be provided to all staff Site will be strictly monitored in consultation with NPWS and the appointed contractor. Good practice guidelines must be followed including those for Pollution Prevention (PPGs).
Biosecurity			
Importation of Invasive species	Importing materials	Sheephaven SAC Dune habitat	In order to comply with Regulations 49 and 50 of the European Communities (Birds and Natural Habitat) Regulations (2011), the appointed Contractor will ensure biosecurity measures are implemented throughout the construction phase to ensure the introduction and translocation of invasive species is prevented, see section 6 of CEMP/ section 13 of NIS. When importing

Source	Pathway	Receptor	Mitigation Measure
			materials from outside a site there is always a risk of importing unwanted elements such as seed or spores from invasive plants for example, Japanese knotweed or Rhododendron. Every effort will be made to ensure imported material is clear of contaminants and comes from a known reliable source.
			Any plant or machines to be used in the project area will be washed down at a designated offsite location prior to mobilising. All machinery, equipment, footwear should be inspected for attached plant material before entering or leaving. If found, it should be removed before entering the area, and disposed of carefully and should not be discarded in or around the site.
Invasive Alien Plant Species	Transportation of materials within and around the site	Sheephaven SAC Dune Habitats	Sea Buckthorn to be removed and treated from site prior to works commencing. IAPS mitigation measures to be followed and Biosecurity measures implemented see section 6 CEMP/13.3 of NIS.
Construction	Habitat degradation or loss	Sheephaven SAC Dune Habitats	NPWS will be consulted prior to any works taking place within the SAC and proposed methods approved in advance of works. Construction workers will be made aware of the sensitivities in the area and the area will be fenced off as much as is practical during works. Works should be done by hand as much as is practicable. Tracked machinery should not be used in the dune system. Sand removed to permit the access upgrade will be stockpiled for reinstatement of dunes. After access works are complete sand that has been temporarily removed will be reinstated, split hazel fencing will be erected around the edge of the dunes, to encourage recovery and to guide pedestrians into the access path. The access path and split hazel fencing will control visitor movements in and around the site and will deter users from tramping through the dune system by providing them with a direct, safe and accessible route. Any damaged areas will be reinstated and planted with Dune grasses as appropriate e.g. couch grass (*Elytrigia juncea*) and/or

Source	Pathway	Receptor	Mitigation Measure
			lyme grass (*Leymus arenarius*). A clear sign showing the exit from the beach will be erected. Information and education panels will be erected around the project area explaining dune systems, the biodiversity associated with them and their coastal protection benefits. Outside of the project footprint, there are several access paths cutting through the dunes to the beach. Every effort should be made to reduce the number of routes through consultation with local businesses and caravan owners. Choosing an already established route is preferred rather than developing another route. The rest of the dunes should then be fenced off using split hazel fencing. This encourages sand to be trapped at the base of the dunes and will enable the dunes to recover. **Maintenance** The maintenance of suitable sand binding vegetation to support the natural dune building and repair processes to prevent erosion damage is an ongoing effort. This also involves the control of problem plants for example Sea-buckthorn, to eliminate any potential invasive species before they become widespread.
Silt fencing	Runoff	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Silt fences will be constructed using a permeable filter fabric Hy-Tex Terrastop Premium silt fence or similar, and installed as per manufacturers guidelines. Silt fencing to be strictly monitored for tears or breaches especially after periods of wet weather. Sandbags: Sand to use washed non-calcareous sand (washing to occur off site).
Settlement area/ mobile tank	Runoff from installation	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Works will be carried out in dry weather. A mobile tank is most suitable given the size of the site. If a lagoon is required the following will be required: Silt fencing will be established around the site for the lagoons. The lagoons will be dug out and lined with an impermeable layer, the excavated earth will be used to create a bund around the silt

Source	Pathway	Receptor	Mitigation Measure
			lagoon.
Compound	Run off and spills	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	The proposed compound location is a dedicated area of hard standing. The compound will be developed for the safe storage of materials, including a bunded refuelling station (if required), drip trays, impermeable sheeting and spill kits. Silt fencing will be established around the compound area.
Haulage routes, vehicles and construction traffic	Run off from construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Designated routes and parking areas are proposed. Speed limit of 10km p/hr. Vehicles carrying loose soil, aggregate and workings will be sheeted at all times. Appropriately designed vehicles for materials handling will be used. All construction plant and equipment will be maintained in good working order and not left running when not in use. Regular inspection and cleaning of local roads and site boundaries to check for dust deposits, and removal as required. All machines shall be suitably maintained to ensure that emissions of engine-generated pollutants shall be kept to a minimum in accordance with 'Measures Against the Emission of Gaseous and Particulate Pollutants from Internal Combustion Engines to be Installed in Non-Road Mobile Machinery' (2002/88/EC) and 'Emissions of Pollutants from Diesel Engines' (2005/21/EC). A self contained wheel wash will be used and contaminated water collected.
Site preparation, topsoil removal materials handling and levelling	Run off from construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Prior to construction: IAPS plan to be implemented. Erosion control is the first line of defence followed by sedimentation controls. The site substrate will be stabilised around the boundary to prevent any surface run off. This will be done by use of sandbags

Source	Pathway	Receptor	Mitigation Measure
			and silt fencing will then be installed. During demolition and excavation material will be loaded directly into a tipping lorry for removal, or for use or storage as appropriate. There will not be any soil/sand removal from the site, all soil/sand will be reused and stockpiled if required in the construction compound. Disturbed soils/sands will be stabilised as soon as practicable, either temporarily or permanently as required, e.g. sowing, impermeable mats. Excavation works will not be carried out during or following heavy rainfall. Dewatering of excavations shall be avoided where possible. If required, this will be achieved by pumping excess water to settlement tank at the construction site, where the water will be retained for a sufficient length of time to allow particles to settle, before discharge to the drainage system for treatment.
Materials storage, stockpiling.	Run off from construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Stockpiles of materials will be located in a designated area in the compound. Surface areas of stockpiles will be kept to a minimum to reduce area of surfaces exposed to wind pickup. Where appropriate, windbreak netting/screening will be positioned around material stockpiles and vehicle loading/unloading areas. Stockpiles will be covered during periods of heavy rainfall e.g. impermeable mats (plastic sheeting). During dry or windy weather, material stockpiles and exposed surfaces will be covered. Silt fencing will be established at the toe of stockpiles and around the compound area.
Completions and landscaping	Run off from construction	Sheephaven SAC Horn Head to	Disturbed soils/sand will be stabilised as soon as practicable by

Source	Pathway	Receptor	Mitigation Measure
	site	Fanad Head SPA Waterbirds Marine habitat	sowing. Silt fencing will remain until surfaces are stabilised.
Excavation to install drains and levelling access path	Run off from construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Large excavation works to be done in dry weather. Excavated material to be loaded onto lorries/dumper truck for immediate reuse or stockpiling in designated area. Drains to be protected with geotextile bund, fixed with sandbags to prevent surface water runoff into the openings. During utility and drainage works, silt traps will be created using sandbags when connecting to the facility infrastructure to ensure no sediment is released down the pipes. Any sediment will be removed manually and relocated on site.
Contaminated water	Run off from construction site Pollution	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Existing drains will be closed to facilitate construction. Storm water drains will be created and directed to settlement tank and released as required in a controlled manner. Mobile settlement unit will be used to treat water; this will be appropriately sized and designed to cope with a 1 in 10 year storm event of 14hour duration. If dewatering is required the water will be pumped to the settlement tank to allow sediment to settle before water is reused or discharged. Vehicle wash will be connected to the settlement unit where water will be treated prior to release. All drain inlets that could receive storm water and runoff (outside the site perimeter) from the site will be protected using drain covers, and maintained. During construction the site will be serviced by portaloos. These will be serviced regularly by a licensed contractor. Staff will monitor the system. Ongoing monitoring may indicate the need for additional sediment controls. Location, quantity and method of installation will be agreed in consultation with the site manager and statutory agencies as required.

Source	Pathway	Receptor	Mitigation Measure
Contamination from hazardous materials - oils, fuels, chemicals	Run off from construction site Spills and leaks Pollution	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	Refuelling of plant/machinery will be undertaken in designated areas on an impermeable surface within the compound area Refuelling will always be carried out in a controlled manner with absorbent materials available to clean up any spillages. All machinery/equipment will be well serviced and in good working condition. Machinery/equipment will be inspected daily for leaks of hydrocarbons. Any faulty machinery/equipment will be repaired/replaced immediately. A bunded storage area will be located in a designated area within the compound and will be provided for the duration of the construction period for the storage of oils, fuels, chemical and other hazardous materials. If any oil or fuel is stored in the area, it will be kept in a bunded area (providing 110% capacity of the largest stored unit). Chemicals will have individual separate bunds and storage areas. Associated waste materials will be transported by registered carriers, and disposed of to appropriately licensed sites. Drip trays will be supplied for static machinery. Spill kits will contain terrestrial oil booms (80mm diameter x 1000mm) and a plastic sheet, upon which contaminated soil can be placed to prevent contamination of groundwater. Procedures will be set in place to respond to any emergency incidents which may occur on the Site. All appropriate staff will be trained and made aware of the pollution and spill contingency procedures set in place. In the event of an incident the NPWS, and the Environment Protection Agency will be notified immediately.
Concrete	Run off from construction site Pollution	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Coastal and Marine habitats	Pouring concrete will not be carried out during periods of heavy rainfall. Premix concrete lorries will deliver all concrete to site, which will be pumped directly into the required area. Vehicles will leave immediately after delivery. Strictly no washing of concrete premix lorries will be permitted

Source	Pathway	Receptor	Mitigation Measure
			on site.
Dirty vehicles and equipment	Run off from construction site Pollution	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Coastal and Marine habitats	A designated area will be allocated for the washing of vehicles and other equipment; the dirty water from same will be contained and redirected to the settlement unit.
Waste management	Construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Coastal and Marine habitats	Waste will be removed from the site and disposed of by an approved waste contractor in accordance with prevailing waste management regulations. On completion of the works, all apparatus, plant, tools, offices, sheds, surplus materials, rubbish and temporary erections or works of any kind will be removed from the site.
Completions and landscaping	Run off from construction site	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Coastal and Marine habitats	Disturbed soils will be stabilised as soon as practicable by sowing. Silt fencing will remain until soils are stabilised.
Emergency Event	Run off from construction site Spills, damage to equipment	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Marine habitat	All operatives pre, during and post construction will be made fully aware of the environmental sensitivities in the area and the procedures to follow in the event of an emergency or pollution incident. If an emergency event should arise (e.g. an extreme weather event), with the capability of generating additional erosion and sediment laden runoff the necessary equipment required in responding to this event will be stored on site. Staff will be trained in the use and application of these temporary emergency measures which may involve: Impermeable matting, silt fences, mulching and portable settlement tanks. In the event of an incident the NPWS and the Environment Protection Agency will be notified immediately.
Operation			

Source	Pathway	Receptor	Mitigation Measure
Surface water runoff/wastewater	Run off from site Malfunction of waste water treatment facilities	Sheephaven SAC Horn Head to Fanad Head SPA Waterbirds Coastal and Marine habitats	Surface water, grey water and waste water will be pumped to the existing treatment facility. The pumping facility will have a back up and alarm system to alert operators of any malfunction.
Lighting	Light spillage Birds Bats and other wildlife	Sheephaven SAC Horn Head to Fanad Head SPA Sea / Waterbirds Birds Bats and other wildlife	The avoidance of direct lighting on trees, hedges shrubs, wildlife corridors such as stone walls. All lights should lack UV elements. Low-pressure sodium lights will be used in preference to high pressure sodium lights or mercury lamps. If mercury lamps are to be used, ultraviolet (UV) filters will be fitted. Directional lighting – that is, lighting only at the intensity and direction it is needed Cowled lighting will be used throughout, to direct light spill away from habitat. Height of lighting columns – The lower the light column, the less light spillage. Height of light masts will be minimised; masts should be preferably below 3 m high. Duration of lighting – Lights should only be on when in use or for health and safety purposes. The use of timers and sensors are ways of controlling this. Motion sensitive lighting where appropriate will be used.
Clearing of vegetation **Construction near nesting sites**	Damage to habitat, habitat loss, injury, mortality	Nesting habitat –Birds	There is a limited area of vegetation along the access route, works along the access road may disturb nesting birds If it is not possible to adhere to the Wildlife act restrictions a preconstruction survey will be undertaken by a suitably qualified ecologist prior to removal of vegetation Where surveys determine no nests are present, works must proceed within 72 hours or further surveys will be required. If a nest is found, it should be clearly marked and a buffer zone established around it, and left until fledglings have left. Alternatively if the nest has to be removed a derogation licence will be required from NPWS.
Visitor management	Damage to Habitat	Dune system	The dune area around the new path and along the beach will be fenced with split hazel fencing to deter movement from the

Source	Pathway	Receptor	Mitigation Measure
			beach through the dunes. The fencing should extend along the beach and around the entrance to the beach to encourage visitors to use one route only. The exit from the beach should be clearly marked. Consultation with other activity providers at Downings will aim to reduce potential impacts on the dune system. Damaged areas of dune will be planted with appropriate dune grasses e.g. couch grass (*Elytrigia juncea*) and/or lyme grass (*Leymus arenarius*). Prior consultation with NPWS is required. Information and Education panels will be installed at several locations to encourage the dissemination of information about the ecological value and sensitivities of the dune system, Waterbirds and other ecological features at Downings.

Table 2. Mitigation Measures for Downings PFG Project

Appendix 6. Residual effects

Assessment of Mitigation Measures in terms of RELEVANT Conservation Objectives, Attributes and Targets

The following Natura 2000 sites were screened in for further assessment during the screening for appropriate assessment and formed the terms of reference for the Natura Impact Statement.

Sheephaven SAC and Horn Head to Fanad Head SPA

The project has been assessed in terms of the potential for residual effect which may affect reaching specified targets in the Conservation Objectives for the relevant Qualifying interests/ Special Conservation Interests.

Favourable conservation status of a habitat is achieved when:

- • its natural range, and area 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 favourable conservation status of a species is achieved when:

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

Sheephaven SAC

Objective: To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Sheephaven SAC, which is defined by the following list of attributes and targets:

There was no specific conservation objective available for Embryonic Dunes or Fixed Dunes. Attributes and targets for neighbouring SAC with the same qualifying interests has been used as a guide.

Attribute	Measure	Target	Residual Effect?
Mudflats and sandflats not covered by seawater at low tide			
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes	There will be some disturbance at the entrance to the beach, the habitat area will not be impacted - no residual effect.
Community distribution	Hectares	Conserve the following community types in a natural condition: Sand to coarse sediment with *Pygospio elegans* community complex; Sand with *Angulus tenuis* community.	Sufficient mitigation in CEMP and project design – no residual effect.
Embryonic shifting dunes			
Habitat area	Hectares	Habitat area stable or increasing, subject to natural processes, including erosion and succession	Temporary disturbance of a very small area of dune habitat will occur at the entrance to the beach. This area is already subject to regular disturbance and is heavily degraded due to visitor movements. The defined access route and fencing will better manage visitors in the area and will likely have a positive impact on the dune area over the long term. There will be no loss of sediment supply and sand will be redistributed in the same general area. Due to the small area involved, effects will not be significant and do not pose a risk of affecting the conservation objectives, or the conservation status of the QI. No significant residual effects.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes	As above, there will temporary disturbance. After works are complete sand will be redistributed in the same general area. Pedestrian management, split hazel fencing and dune grass planting proposed. Over time natural processes will enable reinstatement of dune. Measures likely to encourage natural recovery of the dune system overall. No significant residual effects.

Physical structure: functionality and sediment supply	Presence/absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Temporary disturbance of habitat in area There will be no change in sediment supply or functionality – No permanent or significant residual effects.
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Pedestrian management, Split hazel fencing and dune grass planting proposed in consultation with NPWS. – No negative residual effects.
Vegetation composition: plant health of foredune grasses	Percentage cover flowering heads present)	More than 95% of sand couch grass (*Elytrigia juncea*) and/or lyme grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground	Split hazel fencing and dune grass planting proposed, in consultation with NPWS. – No negative residual effects.
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sand couch grass (*Elytrigia juncea*) and/or lyme grass (*Leymus arenarius*)	Split hazel fencing and dune grass planting proposed in consultation with NPWS. – No negative residual effects.
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover. Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. Sea-buckthorn (*Hippophae rhamnoides*) should be absent or effectively controlled	Mitigation proposed to remove Sea-buckthorn from the access road. Biosecurity measures proposed. Split hazel fencing and dune grass planting proposed. Ongoing maintenance of dunes. No negative residual effects
Fixed Dunes			
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession.	Disturbance of fixed dune habitat not anticipated. Project proposes the removal of already built /rock armour area along existing access path. Effects will not be significant and do not pose a risk of affecting the conservation objectives, or the conservation status.

Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes	There will be no change in the distribution of fixed dune habitat. Pedestrian management, Split hazel fencing and dune grass planting proposed in consultation with NPWS. Over time natural processes will enable reinstatement of dune. Measures likely to encourage natural recovery of the dune system overall
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	Temporary disturbance of habitat in area There will be no change in sediment supply or functionality – No permanent residual effects
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Split hazel fencing and dune grass planting proposed in consultation with NPWS. Over time natural processes will enable reinstatement of dune. Measures likely to encourage natural recovery of the dune system overall. No negative residual effects
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes	Split hazel fencing and dune grass planting proposed in consultation with NPWS. Over time natural processes will enable reinstatement of dune. Measures likely to encourage natural recovery of the dune system overall. No negative residual effects
Vegetation structure: sward height	Centimetres	Maintain structural variation within sward	Split hazel fencing and dune grass planting proposed in consultation with NPWS. Over time natural processes will enable reinstatement of dune. Measures likely to encourage natural recovery of the dune system overall. No negative residual effects
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain range of subcommunities with typical species listed in Ryle et al. (2009)	Split hazel fencing and dune grass planting proposed in consultation with NPWS. Over time natural processes will enable reinstatement of dune. Measures likely to encourage natural recovery of the dune system overall. No negative residual effects

Vegetation composition: negative indicator species (including Hippophae rhamnoides)	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover	Mitigation proposed to remove Sea-buckthorn from the access road. Biosecurity measures proposed. Split hazel fencing and dune grass planting proposed. Ongoing maintenance of dunes. No negative residual effects
Vegetation composition: scrub/trees	Percentage cover	No more than 5% cover or under control	Mitigation proposed for ogoing maintenance of dunes. No negative residual effects

Table 1. Assessment of residual effects

Horn head to Fanad Head SPA

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA

The only SCI species identified on in the survey area were small numbers of Cormorants and Shags. These were recorded in the marine environment. There are no significant effects identified from the implementation of the plan. Discrete location away from the beach and habitat. Construction and Environmental Management Plan and lighting proposals sufficient. There will be no negative residual effects.