



Interim Coastal Protection Works at the Burrow, Portrane

Screening for Appropriate Assessment





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1 INTRODUCTION

In recent years, the coastline at the Burrow has been subject to extensive episodes of coastal erosion. In response to this risk, Fingal County Council (FCC) commissioned a study to investigate and quantify the threat of future coastal erosion and flooding at Portrane. The study found that in order to deal with the erosion at Portrane, a long term strategy needs to be defined which is expected to take 2-3 years to design and develop, consent and implement. An interim coastal protection solution is proposed using three lines of Seabee units to slow down coastal erosion where properties are most at risk while a permanent coastal management strategy can be brought forward for the long term protection of the Portrane and Rush areas.

In that context, this report has been prepared by RPS on behalf of FCC to document a screening for appropriate assessment exercise that RPS has conducted, documenting evaluation and analysis seeking to establish whether or not in view of best scientific knowledge, a decision to consent to interim coastal protection works in the form of Seabee units at the Burrow, Portrane is likely to have a significant effect on any European site. The exercise considers the proposed development individually and in combination with other relevant plans or projects, and has been undertaken in view of best scientific knowledge and in view of the conservation objectives of the site concerned. .

This report has been issued to FCC to assist the Local Authority in fulfilling its duties in accordance with Part XAB of the [Planning and Development Act 2000](#) (as amended) which transposes certain aspects of Articles 6(3) and 6(4) of the Habitats Directive [92/43/EEC](#).

2 METHODOLOGY

2.1 GUIDANCE DOCUMENTS

Appropriate Assessment Guidelines for Planning Authorities have been published by the Department of the Environment Heritage and Local Government ([DEHLG, 2010a](#)). In addition to the advice available from the Department, the European Commission has published a number of documents which provide a significant body of guidance on the requirements of Appropriate Assessment, most notably including, *'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'* (EC, 2001), which sets out the principles of how to approach decision making during the process.

These principal national and European guidelines have been followed in the preparation this screening report. The following list identifies these and other pertinent guidance documents:

- Communication from the Commission on the Precautionary Principle., Office for Official Publications of the European Communities, Luxembourg ([EC, 2000](#));
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg ([EC, 2000b](#));
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels ([EC, 2001](#));
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission; ([EC, 2007](#));
- Estuaries and Coastal Zones within the Context of the Birds and Habitats Directives - Technical Supporting Document on their Dual Roles as Natura 2000 Sites and as Waterways and Locations for Ports. European Commission ([EC, 2009](#));
- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin ([DEHLG, 2010a](#));
- Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive – Guidance for Planning Authorities ([DEHLG, 2010b](#));
- Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging. European Commission ([EC, 2011a](#));
- European Commission Staff Working Document 'Integrating biodiversity and nature protection into port development' ([EC, 2011b](#));
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin ([NPWS, 2012](#));
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission ([EC, 2013](#));

- Conservation Objectives: Rogerstown Estuary SAC 000208 (v1). National Parks and Wildlife Service, Dublin ([NPWS, 2013a](#));
- Rogerstown Estuary SAC Conservation objectives supporting document - Marine habitats (v1). National Parks and Wildlife Service, Dublin ([NPWS 2013b](#));
- Conservation Objectives: Rogerstown Estuary SPA 004015 (v1). National Parks and Wildlife Service, Dublin ([NPWS, 2013c](#)); and
- Rogerstown Estuary SPA Conservation Objectives Supporting Document (v1). National Parks and Wildlife Service, Dublin ([NPWS, 2013d](#))

2.2 LIKELY SIGNIFICANT EFFECT

The threshold for a likely significant effect is treated in the screening exercise as being above a *de minimis* level. A *de minimis* effect is a level of risk that is too small to be concerned with when considering ecological requirements of an Annex I habitat or a population of Annex II species present on a European site necessary to ensure their favourable conservation condition. If low level effects on habitats or individuals of species are judged to be in this order of magnitude and that judgment has been made in the absence of reasonable scientific doubt, then those effects are not considered to be likely significant effects.

Case law of the CJEU also helps interpret the concept of significant effect. Case [C-127/02](#) (Waddenzee) has confirmed that a significant effect is triggered when:

- there is a probability or a risk of a plan or project having a significant effect on a European site;
- the plan is likely to undermine the site's conservation objectives; and
- a significant effect cannot be excluded on the basis of objective information.

The Opinion of the Advocate General in case [C-258/11](#) (Sweetman -v- An Bord Pleanála) notes that the requirement that the effect in question be 'significant' exists in order to lay down a *de minimis* threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.

2.3 MITIGATION MEASURES

In relation to mitigation measures, EC (2001) states that –

“project and plan proponents are often encouraged to design mitigation measures into their proposals at the outset. However, it is important to recognise that the screening assessment should be carried out in the absence of any consideration of mitigation measures that form part of a project or plan and are designed to avoid or reduce the impact of a project or plan on a Natura 2000 site”.

This direction in the European Commission's guidance document is unambiguous in that it does not promote the inclusion of mitigation at screening stage.

In April 2018, the Court of Justice of the European Union issued a ruling in case [C-323/17](#) that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that –

“in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site”.

Measures intended to avoid or reduce the harmful effects of the proposed development on European sites have not been proposed, and therefore have not been taken into account in this screening assessment, in accordance with the judgment of the CJEU in case [C-323/17](#).

In July 2018, the Court of Justice of the European Union issued a ruling in case [C-164/17](#) that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that –

“where it is intended to carry out a project on a site designated for the protection and conservation of certain species, of which the area suitable for providing for the needs of a protected species fluctuates over time, and the temporary or permanent effect of that project will be that some parts of the site will no longer be able to provide a suitable habitat for the species in question, the fact that the project includes measures to ensure that, after an appropriate assessment of the implications of the project has been carried out and throughout the lifetime of the project, the part of the site that is in fact likely to provide a suitable habitat will not be reduced and indeed may be enhanced may not be taken into account for the purpose of the assessment that must be carried out in accordance with Article 6(3) of the directive to ensure that the project in question will not adversely affect the integrity of the site concerned; that fact falls to be considered, if need be, under Article 6(4) of the directive”.

Measures to ensure that suitable habitat necessary for achieving the conservation objectives of a European site will neither be reduced nor enhanced have not been proposed, and therefore have not been taken into account in this shadow screening assessment, in accordance with the judgment of the CJEU in case [C-164/17](#).

2.4 IN-COMBINATION EFFECTS

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. If it is determined that likely significant effects cannot be discounted as a result of the proposed plan or project, consideration of potential in-combination effects may be deferred to appropriate assessment stage.

In the case where likely significant effects can be discounted at screening stage from the plan or project alone, consideration of potential in-combination effects may also be disregarded where there would be no possible effects whatsoever or where any effects predicted are imperceptible and of a *de minimis* magnitude.

3 THE PROPOSED DEVELOPMENT

3.1 BACKGROUND

The Burrow at Portrane is a natural sandy spit that separates Rogerstown estuary from the Irish Sea. In previous years, a wide and flat sandy beach together with an extensive dune system created an effective natural buffer against incident wave energy and erosive processes. In recent years, erosion has exacerbated the loss of sand during increasingly frequent extreme waves and storm surges and has increased the threat of further coastal erosion at the Burrow. No hard engineering measures have been implemented to mitigate the threat of coastal erosion along the Burrow in recent times due to the potential of such measures impacting the feature interests of the Rogerstown Estuary European sites, designated 20 years ago. However, the continued depletion of sand in the area has reduced beach levels to the extent that large energetic waves have been able to propagate landward, resulting in more significant coastal erosion.

A preliminary assessment of the flood risk which was previously undertaken by RPS also found that owing to the low lying nature of much of the sandy spit at the study site, the dune system along the Burrow provides an essential buffer against coastal flooding. Therefore it is believed that the current threat of coastal erosion not only presents an immediate structural risk to assets and infrastructure properties along the frontage, but it also presents a very significant flood risk to the Burrow if the dune system was to be breached.

Until recently, the coastline of the natural sandy spit of the Burrow at Portrane was considered to be dynamically stable; moving about a fixed position in response to prevailing weather conditions. However, a more recent erosion assessment of Portrane (See Erosion and Climate Assessment Report at Appendix A) found that with global climate change driving an increase in more extreme weather conditions, sea level conditions and the frequency and magnitude of extreme storm events, the sandy dune system illustrated in Figure 3.1 is now considered at an increased risk from coastal erosion.

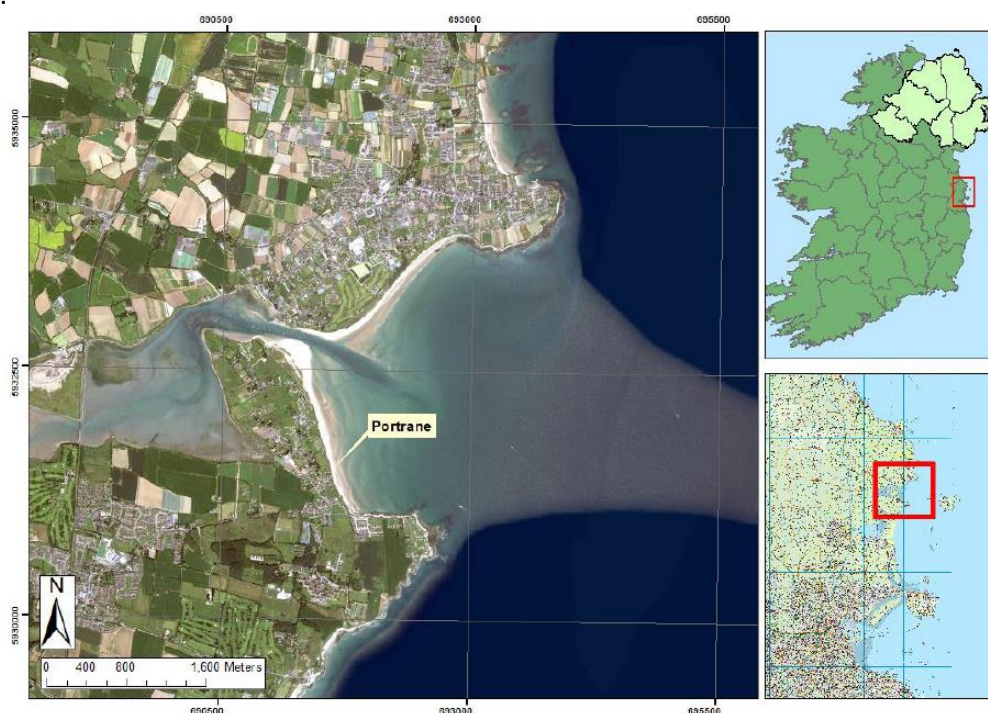


Figure 3.1: Location and extent of the sand spit threatened by coastal erosion at the Burrow

Between 2013 and present, the coastline around the Burrow was subject to extensive episodes of coastal erosion with the dune line in some regions retreating landward by more than 20 metres to create an immediate structural risk to a number of private residential properties. In context of historical coastal change at Portrane these episodes of erosion were until recently unprecedented in extent and magnitude. Further analysis of storm conditions causing coastal erosion at Portrane is described in the Erosion and Climate Assessment Report at Appendix A.

3.2 INTERIM COASTAL PROTECTION MEASURES

Coastal protection solutions that aimed to attenuate the incident wave climate before the prevailing waves impacted the coastline were reviewed (see Coastal Protection Works Report at Appendix A). The most viable interim option identified by RPS and brought forward for further assessment involved the use of pre-cast concrete Seabee units (Figure 3.2) to “trip” the incident waves before they interact with the dune thus reducing the wave energy available to erode the coastline along the Burrow.

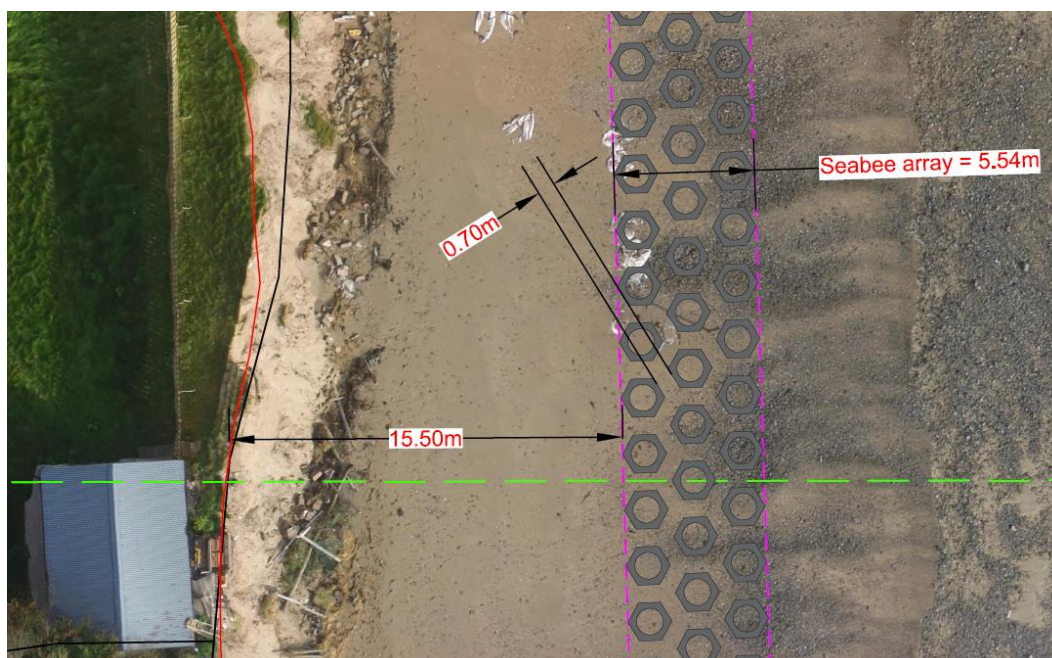


Figure 3.2: Extract from Drawing at Appendix B showing proposed Seabee arrangement on the beach

In order to derive the detailed specification of these units and evaluate the technical effectiveness of this option during extreme storm conditions, RPS collaborated with The Queen’s University and undertook scaled hydraulic testing of these units.

The hydraulic testing found that an array consisting of three staggered rows of carefully placed Seabee units measuring approximately 1.7m wide and 1.4m high could successfully reduce the energy of incident wave during a 1 in 50 year return period sea state by a factor of c. x7. These findings therefore confirm that this option is one potential interim solution that could be implemented in order to successfully mitigate the threat of coastal erosion over the short term whilst a more permanent coastal management strategy is developed. It is proposed to place three rows of these units along a 260m long section of the top of the existing beach. No units are required further south of the proposed line because there is an existing metal sheet revetment present that prevents further erosion at this location.

Drawings indicating the location and arrangement of Seabee units are included at Appendix B.

3.3 CONSTRUCTION METHODOLOGY

The precast concrete units will be manufactured offsite and transported to the temporary site compound by the manufacturer. The access/egress route along the beach will be along a dedicated route from a secure temporary site storage compound in between Pipers chip shop and the Brook pub where the units will be stored as illustrated in Appendix C.

Access along the beach by plant transporting the units and lifting/laying the units will be along the line of the Seabee units. Contractors will begin placing units at the northern extent of the proposed array in a west to east fashion, working southwards back towards the point of access onto the beach.

The placement of the Seabee units on the beach will be undertaken in a number of phases with each phase beginning when there is a minimum of 30 units ready for placement in the secure temporary site storage compound. Each phase will involve transporting a number of units onto and along the beach at a time, using a tractor and trailer with large rubber tyres. Laying and placing of the units will be achieved using a hydraulic machine with wide tracked machine.

Refuelling shall only occur off site, as no provision has been made for storage or pumping of fuel in the secure temporary site storage compound.

As the units are to be located in a supratidal area of the beach at a distance varying between 9m and 25m up the beach from the mean spring high water line (as illustrated in drawings at Appendix B), all construction works shall occur in the dry above the high tide line.

Units will be lifted using three stainless steel lifting eye sockets that are cast into the units and placed onto the beach using a suitable low ground pressure vehicle

The units are to be half filled with clean washed 4" stone in the storage compound before being brought to the beach. Model testing found that it was important from a hydraulic performance view point that a void was present in the top of the Seabee unit.

Sandbags placed on the beach in the past from ad-hoc storm erosion prevention attempts shall be removed as part of the works. This will help to avoid further loss of plastic particles into the environment as a result of the bags slowly disintegrating.

4 SCREENING FOR APPROPRIATE ASSESSMENT

4.1 EUROPEAN SITES

There is a significant aggregation of designated sites at and off the north County Dublin coastline, including European sites (SACs and SPAs), NHAs and pNHAs, Ramsar sites, IBAs and Nature Reserves. It is a coastal wetland complex of considerable nature conservation value. This screening exercise considers European sites designated under European Council Directives 92/43/EEC and 2009/147/EC. The proposed development must be screened against those European sites for which a pathway of effect can be reasonably established between a receptor and the source of effect.

A total of 17 European sites were identified within a 15km radius of the proposed development, as described in Table 4.1 and illustrated in Figure 4.1. The information contained in this table is based on publicly available data on these European Sites, sourced from NPWS in August 2018.

Table 4.1: European Sites and their Qualifying Interests within 15km of the proposed development

Site Code	Site Name	Qualifying Features	Distance
(00208)	Rogerstown Estuary SAC	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] <i>Salicornia</i> and other annuals colonizing mud and sand [1310] <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1320] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	0km
(00205)	Malahide Estuary SAC	Mudflats and sandflats not covered by seawater at low tide [1140] <i>Salicornia</i> and other annuals colonizing mud and sand [1310] <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1320] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	1.7km
(3000)	Rockabill to Dalkey Island SAC	Reefs [1170] Harbour porpoise (<i>Phocoena phocoena</i>) [1351]	2.6km
(00204)	Lambay Island SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Grey seal (<i>Halichoerus grypus</i>) [1364]	4.7km
(00199)	Baldoyle Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] <i>Salicornia</i> and other annuals colonizing mud and sand [1310] <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1320] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	8.3km
(002193)	Ireland's Eye SAC	Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	9.7km
(00206)	North Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] <i>Salicornia</i> and other annuals colonizing mud and sand [1310] <i>Spartina</i> swards (<i>Spartinion maritimae</i>) [1320] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Petalwort (<i>Petalophyllum ralfsii</i>) [1395] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white	11.6 Km

Site Code	Site Name	Qualifying Features	Distance
		dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190]	
(00202)	Howth Head SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	12km
(04015)	Rogerstown Estuary SPA	Greylag Goose (<i>Anser anser</i>) [A043] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Redshank (<i>Tringa totanus</i>) [A162] Wetlands & Waterbirds [A999]	0km
(04025)	Malahide Estuary SPA	Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Pintail (<i>Anas acuta</i>) [A054] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Wetlands & Waterbirds [A999]	3km
(04069)	Lambay Island SPA	Fulmar (<i>Fulmarus glacialis</i>) [A009] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Greylag Goose (<i>Anser anser</i>) [A043] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] Kittiwake (<i>Rissa tridactyla</i>) [A188] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200] Puffin (<i>Fratercula arctica</i>) [A204]	4.8km
(04122)	Skerries Island SPA	Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Purple Sandpiper (<i>Calidris maritima</i>) [A148] Turnstone (<i>Arenaria interpres</i>) [A169] Herring Gull (<i>Larus argentatus</i>) [A184]	6.8km
(04014)	Rockabill SPA	Purple Sandpiper (<i>Calidris maritima</i>) [A148] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194]	7.3km
(04016)	Baldoye Bay SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Wetlands & Waterbirds [A999]	8.3km
(04117)	Ireland's Eye	Cormorant (<i>Phalacrocorax carbo</i>) [A017]	9.2km

Site Code	Site Name	Qualifying Features	Distance
	SPA	Herring Gull (<i>Larus argentatus</i>) [A184] Kittiwake (<i>Rissa tridactyla</i>) [A188] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200]	
(04006)	North Bull Island SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Larus ridibundus</i>) [A179] Wetlands & Waterbirds [A999]	11.6km
(04113)	Howth Head Coast SPA	Kittiwake (<i>Rissa tridactyla</i>) [A188]	11.9km

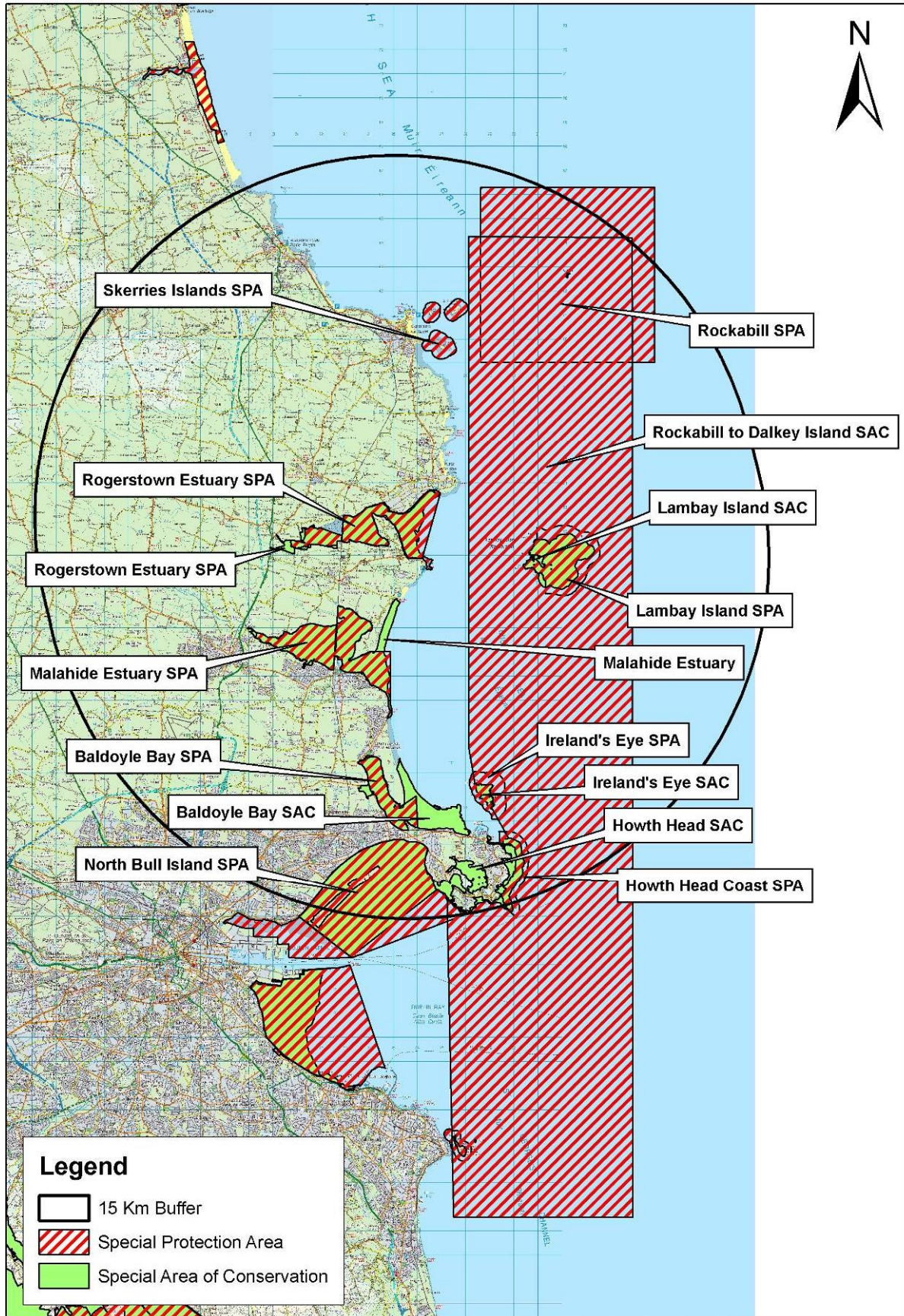


Figure 4.1: European sites within 15km of the proposed development

The proposed development is located within Rogerstown Estuary SAC and adjacent to Rogerstown Estuary SPA. The most up-to-date Conservation Objectives and details in relation to the Qualifying Interests and Special Conservation Interests for these European sites are outlined in Table 4.2.

Table 4.2: Rogerstown Estuary European Sites – Qualifying Interests & Conservation Objectives

Site Code	Site Name	Conservation Objectives	Published
IE000208	Rogerstown Estuary SAC	<p>To maintain the favourable conservation condition of 7 no. Annex 1 habitat types listed below in the SAC, as defined by a range of attributes and targets.</p> <ul style="list-style-type: none"> ▪ Estuaries [1130] ▪ Mudflats and sandflats not covered by seawater at low tide [1140] ▪ Salicornia and other annuals colonising mud and sand [1310] ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] ▪ Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] ▪ Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] 	14.08.2013 (v1)
IE004015	Rogerstown Estuary SPA	<p>To maintain the favourable conservation condition of 11 no. Annex 1 species listed below in the SPA, as defined by 2 no. attributes and targets; and of wetland habitats in the SPA as a resource for the regularly-occurring migratory waterbirds that utilise it, as measured by 1 no. attribute and target.</p> <ul style="list-style-type: none"> ▪ Greylag Goose (<i>Anser anser</i>) [A043] ▪ Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] ▪ Shelduck (<i>Tadorna tadorna</i>) [A048] ▪ Shoveler (<i>Anas clypeata</i>) [A056] ▪ Oystercatcher (<i>Haematopus ostralegus</i>) [A130] ▪ Ringed Plover (<i>Charadrius hiaticula</i>) [A137] ▪ Grey Plover (<i>Pluvialis squatarola</i>) [A141] ▪ Knot (<i>Calidris canutus</i>) [A143] ▪ Dunlin (<i>Calidris alpina</i>) [A149] ▪ Black-tailed Godwit (<i>Limosa limosa</i>) [A156] ▪ Redshank (<i>Tringa totanus</i>) [A162] ▪ Wetland and Waterbirds [A999] 	20.05.2013 (v1)

4.1.1 Rogerstown Estuary SAC (Site Code IE00208)

Rogerstown Estuary Special Area of Conservation (SAC) was proposed as a Site of Conservation Importance (SCI) in December 1999 and is protected as a European Site under the Birds and Natural Habitats Regulations, 2011 (as amended). The qualifying interests of this European site are listed in Table 4.1. NPWS (2013b) notes in relation to maintaining the physical structure and functioning of the dunes that coastlines naturally undergo a constant cycle of erosion and accretion, and that there are two main causes of this; (a) those resulting from natural causes and (b) those resulting from human interference. Human interference is usually associated with changes in the sediment budget,

either directly, through the removal of beach or inshore sediment, or indirectly, by impeding or altering sediment movement.

Threats identified by the NPWS potentially affecting this Natura 2000 designation at Portrane, as described in the Conservation Objectives include:

- Landfilling;
- Pollution from landfill, sewerage and agriculture; and
- Erosion of sand dunes.

The relative coverage of each of the qualifying interests (QIs), and their conservation status in this SAC are listed in Table 4.3. The conservation objective targets for these qualifying interests are listed in Table 4.4.

Table 4.3: Rogerstown Estuary SAC Qualifying Interests – coverage and status

QI	Representation	Relative Surface	Conservation Status	Global Assessment	Coverage
1140 Mudflats and sandflats not covered by seawater at low tide	B	B	C	C	61% of SAC
1130 Estuaries	B	C	C	C	13% of SAC
1320 Spartina swards (<i>Spartinion maritimae</i>)	D	-	-	-	10% of SAC
1330 Atlantic salt meadows (<i>Glauco -Puccinellietalia maritimae</i>)	B	C	C	C	4% of SAC
1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	B	C	C	C	4% of SAC
2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	C	C	C	C	1% of SAC
2130 * Fixed coastal dunes with herbaceous vegetation ("grey dunes")	C	C	C	C	1% of SAC
1310 <i>Salicornia</i> and other annuals colonizing mud and sand	B	C	C	C	1% of SAC

Table 4.4: Rogerstown Estuary SAC Conservation Objective Targets

QI	Component Objective	Objective Targets
1140 Mudflats and sandflats not covered by seawater at low tide	To maintain the favourable conservation condition of this habitat	<ul style="list-style-type: none"> - The permanent habitat area is stable or increasing - Maintain the extent and conserve the high quality of the <i>Zostera</i>-dominated community and the <i>Mytilus edulis</i>-dominated community, subject to natural processes. - Conserve the following community types in a natural condition: Sand to coarse sediment with <i>Nephtys cirrosa</i> and <i>Scolecopsis squamata</i> community complex; Estuarine sandy mud to mixed sediment with <i>Tubificoides benedii</i>, <i>Hediste diversicolor</i> and <i>Peringia ulvae</i> community complex.
1130 Estuaries	To maintain the favourable	<ul style="list-style-type: none"> - The permanent habitat area is stable or increasing - Maintain the extent and conserve the high quality of the <i>Zostera</i>

QI	Component Objective	Objective Targets
	conservation condition of this habitat	dominated community and the <i>Mytilus edulis</i> -dominated community, subject to natural processes. <ul style="list-style-type: none"> - Conserve the following community types in a natural condition: Sand to coarse sediment with <i>Nephtys cirrosa</i> and <i>Scolecopsis squamata</i> community complex; Estuarine sandy mud to mixed sediment with <i>Tubificoides benedii</i>, <i>Hediste diversicolor</i> and <i>Peringia ulvae</i> community complex.
1310 <i>Salicornia</i> and other annuals colonizing mud and sand	To maintain the favourable conservation condition of this habitat	<ul style="list-style-type: none"> - Area stable or increasing, subject to natural processes, including erosion and succession. - No decline, or change in habitat distribution, subject to natural processes. - Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions - Maintain creek and pan structure, subject to natural processes, including erosion and succession - Maintain natural tidal regime - Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession - Maintain structural variation within sward - Maintain more than 90% of area outside creeks vegetated - Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009). - No significant expansion of common cordgrass (<i>Spartina anglica</i>). No new sites for this species and an annual spread of less than 1% where it is already known to occur.
1330 Atlantic salt meadows (<i>Glauco Puccinellietalia maritima</i>)	To restore the favourable conservation condition of this habitat	<ul style="list-style-type: none"> - Area stable or increasing, subject to natural processes, including erosion and succession (based on 2007 data). - No decline or change in habitat distribution, subject to natural processes. - Maintain natural circulation of sediments and organic matter, without any physical obstructions - Allow creek and pan structure to develop, subject to natural processes, including erosion and succession - Maintain natural tidal regime - Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession - Maintain structural variation within sward - Maintain more than 90% area outside creeks vegetated - Maintain range of sub-communities with typical species listed in SMP (McCorry and Ryle, 2009) - No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1% where it is known to occur.
1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	To maintain the favourable conservation condition of this habitat	<ul style="list-style-type: none"> - Area stable or increasing, subject to natural processes, including erosion and succession (based on 2007 data). - No decline or change in habitat distribution, subject to natural processes. - Maintain natural circulation of sediments and organic matter, without any physical obstructions - Allow creek and pan structure to develop, subject to natural processes, including erosion and succession - Maintain natural tidal regime - Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession - Maintain structural variation within sward - Maintain more than 90% area outside creeks vegetated - Maintain range of sub-communities with typical species listed in SMP (McCorry and Ryle, 2009) - No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1% where it is known to occur.
2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white	To restore the favourable conservation condition of this habitat	<ul style="list-style-type: none"> - Area increasing, subject to natural processes including erosion and succession. - No decline, or change in habitat distribution, subject to natural processes. - Maintain the natural circulation of sediment and organic matter, without any physical obstructions

QI	Component Objective	Objective Targets
dunes")		<ul style="list-style-type: none"> - Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession - 95% of marram grass (<i>Ammophila arenaria</i>) and/or lyme-grass (<i>Leymus arenarius</i>) should be healthy (i.e. green plant parts above ground and flowering heads present) - Maintain the presence of species-poor communities dominated by marram grass (<i>Ammophila arenaria</i>) and/or lymegrass (<i>Leymus arenarius</i>) - Negative indicator species (including non-natives) to represent less than 5% cover
2130 * Fixed coastal dunes with herbaceous vegetation ("grey dunes")	To restore the favourable conservation condition of this habitat	<ul style="list-style-type: none"> - Area increasing, subject to natural processes including erosion and succession. - No decline, or change in habitat distribution, subject to natural processes. - Maintain the natural circulation of sediment and organic matter, without any physical obstructions - Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession - Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes - Maintain structural variation within sward - Maintain range of sub-communities with typical species listed in Ryle <i>et al.</i> (2009) - Negative indicator species (including non-natives) to represent less than 5% cover - No more than 5% cover or under control
1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>)		Conservation objectives limited to those above for intertidal habitats 'No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1% where it is known to occur'.

4.1.2 Rogerstown Estuary SPA (Site Code IE004015)

Rogerstown Estuary (Site Code IE004015) is an important waterfowl site, with a population of Brent Geese of international importance. A further 16 species have populations of national importance. The presence of a significant population of Golden Plover is noteworthy as this species is listed on Annex I of the EU Birds Directive. The site is selected as a Special Protection Area (SPA) and of special conservation interest for the wintering species listed in Table 4.1.

Other high conservation value waterbirds not listed as special conservation interests of Rogerstown Estuary SPA occur also. A breeding site for Little Tern is located 1km north of the proposed development at the tip of the Burrow peninsula, with 14 young birds fledged by mid-August in 2018. Ringed Plover breed in the same area. The outer part of the estuary has been designated a statutory Nature Reserve and a Special Protection Area under the EU Birds Directive. . The conservation objectives and targets for Rogerstown Estuary SPA are listed in Table 4.5.

Table 4.5: Rogerstown Estuary SPA Conservation Objectives

Feature	Attribute	Measure	Target	Note
Wintering species	Population Trend	Percentage Change	Long term population trend stable or increasing.	Population trends are presented in part four of the conservation objectives supporting document.
	Distribution	Number and range of areas used by waterbirds	No significant decrease in the range, timing or intensity of use of areas by wintering waterbirds, other than that occurring from natural patterns of variation.	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of conservation objectives supporting document.
Wetland Habitat	Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 646 hectares, other than that occurring from natural patterns of variation.	The wetland habitat area was estimated as 646ha using OSi data and relevant orthophotography.

4.2 ESTABLISHING AN IMPACT PATHWAY

The possibility of significant effects is considered in this report using the source-pathway-receptor model.

- *'Source'* is defined as the individual elements of the proposed works that have the potential to affect the identified ecological receptors.
- *'Pathway'* is defined as the means or route by which a source can affect the ecological receptor.
- *'Ecological receptor'* is defined as the Special Conservation Interests (for SPAs) or Qualifying Interests (of SACs) for which conservation objectives have been set for the European sites being screened.

Each element can exist independently however an effect is created when there is a linkage between the source, pathway and receptor.

4.2.1 Habitat Loss

The Seabee units will not be located within Rogerstown Estuary SPA, but they will be located entirely within Rogerstown Estuary SAC in a supratidal area of the beach at a distance varying between 9m and 25m up the beach from the mean spring high water line (as illustrated in drawings at Appendix B). A spatial dataset of Annex I habitats within the Natura 200 network was made available by NPWS on their website in July 2018¹, and this data was interrogated to understand which habitat type the Seabees were to be located in. This data was reviewed against and is consistent with habitat polygons created by Botanical, Environmental & Conservation (BEC) Consultants from a 2014 sand dune survey commissioned by RPS for a previous contact relating to coastal erosion at Portrane.

¹ <https://www.npws.ie/maps-and-data/habitat-and-species-data>

4.2.1.1 Sand Dune Habitats

Based on the NPWS maps (as illustrated in Figure 4.1) it is proposed to locate the Seabee units in an area containing the following Annex I sand dune habitat types:

- [2130] * Fixed coastal dunes with herbaceous vegetation ("grey dunes")
- [2120] Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")

This is however **no longer accurate** as the coastline has changed in recent years as a result of coastal erosion. As set out in Section 3.1 above, between 2013 and present, the coastline around the Burrow was subject to extensive episodes of coastal erosion with the dune line in some regions retreating landward by more than 20 metres. In context of historical coastal change at Portrane these episodes of erosion were until unprecedented in extent and magnitude.

This is no criticism of the NPWS data. The data illustrated in Figure 4.1 is based on surveys conducted in 2006 for a Coastal Monitoring Project, 2011 for a Sand Dunes Monitoring Project. The data is provided with the following caveat in a section of the metadata information under 'Fitness for use / limitations':

Data are provided on an "as is", "as available" basis and NPWS does not guarantee the accuracy, timeliness, completeness, performance or fitness for a particular purpose of the data. NPWS data are not legal definitions of the current actuality with regard to conservation regulations or their geographic extent. NPWS do not guarantee that the digital data is free of minor errors not materially affecting performance. NPWS do not guarantee that the digital data will be suitable for use with any GIS or any other computer software. It is the users responsibility to ensure that the data are fit for any intended use. NPWS have no responsibility for determining the fitness of the data for their intended use.

Appendix D contains images of the dune erosion evident after Storm Emma. Photographs were taken in May 2018. Appendix D also contains figures prepared by the RPS coastal engineering team showing how the face of dune habitat has retreated by between 10-20m in the period 2008-2018 at the location of the proposed Seabee units.

Grey dunes and White dunes are no longer present where the Seabees are to be installed. . As a result, the location where it is proposed to install the Seabee units is not located in any Annex I habitat for which Rogerstown Estuary SAC has been designated and for which conservation objectives have been set.

The process of coastal erosion is part of a natural tendency towards equilibrium with dunes forming naturally dynamic systems that require continuous supply and circulation of sand. These coastal systems are naturally dynamic and subject to change. NPWS (2013a) specifies that the conservation objective targets for sand dune habitats are subject to natural processes including erosion and succession, and are to be assessed in the context of these dynamic natural processes.

The Rogerstown SAC Conservation Objectives Supporting Document for Coastal Habitats (NPWS (2013b) describes at Section 4 how 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.



Figure 4.21: Former Annex I sand dune habitats at the location of the proposed Seabee units

The overall objective for Grey and White dunes in Rogerstown Estuary SAC is to restore them to favourable conservation condition based on an assessment of the current condition of each habitat under a range of attributes and targets relating to area, range, structure and function as listed in Table 4.3.

Conservation Objective Attributes

Habitat Area and Distribution

The 'Area' target is for the area to be increasing, subject to natural processes including erosion and succession. The 'Distribution' target is for no decline, or change in habitat distribution, subject to natural processes.

Installing Seabee units at the proposed location will not directly cause the area or distribution of these Grey and White dunes to decline in the SAC because both habitat types are no longer present at the site of the units. The nearest Grey dune habitat is located approx. 10-15m away on top of the eroding dune cliff face. The key environmental factor affecting the area and distribution of the dune habitats is coastal erosion due to wave action. Erosion due to wind may be a factor too, but it is envisaged that this is a minor contributory factor.

The transport of sand on a beach is primarily governed by the action of the combination of waves and littoral current below high tide and wind action above high tide. Under normal conditions the Seabees will have no impact on the sediment transport due to waves and currents as the units are situated above the high water mark. Even during storm events the main transport of sand occurs to seaward of the units where the major wave breaking occurs.

What the Seabee units will do is to reduce the rate of dune erosion during storms and consequently the amount of sand released from the dunes during storms. *Based on the model developed as part of the Coastal Risk Assessment for Portrane* the amount of sand coming off the dunes due to storm erosion is only 1.6 percentage of the quantity of sand moving around the beach during a storm event (26m³/m from the dunes compared with 1620m³/m transport on the beach). Thus the loss of material from the dune face protected by Seabee units is not significant compared to the overall amount of sand moved on and around the beach.

In terms of aeolian transport which occurs above high water where there is dry sand, the Seabee units are to be spaced 700mm apart. This spacing is sufficiently large to allow the wind to blow through the units and transport sand through the unit array. Thus by being a porous array the Seabee units will permit wind and blown sand to pass through when dry.

In Summary, the Seabee units will only affect the supply of sand to the extent that they reduce the rate of storm erosion of a section of the dunes. However the amount of sand entering the system due to dune erosion is very small compared to the amount of sand moving on the Portrane beach so the impact of the Seabees on the movement of sand on the beach will be *de minimis*.

Physical Structure

There are a number of 'Structure' targets. For White dunes there are two:

Attribute

Target

- | | |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Physical structure: functionality and sediment supply | 1. <i>Maintain the natural circulation of sediment and organic matter, without any physical obstructions</i> |
| 2. Vegetation structure: zonation | 2. <i>Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession</i> |

For Grey dunes there are four:

Attribute

Target

- | | |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Physical structure: functionality and sediment supply | 1. <i>Maintain the natural circulation of sediment and organic matter, without any physical obstructions</i> |
| 2. Vegetation structure: zonation | 2. <i>Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession</i> |
| 3. Vegetation structure: bare ground | 3. <i>Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes</i> |
| 4. Vegetation structure: sward height | 4. <i>Maintain structural variation within sward</i> |

Installing Seabee units will not cause:

- any significant disruption to the natural circulation of sediment and organic matter in Grey and White dunes as sediment, organic matter and water will be able to move in between and around the units;
- the range of coastal habitats including transitional zones of Grey and White dunes to decline in the SAC as the units are not being installed in these habitats.
- bare ground in Grey dunes to exceed 10%. range of coastal habitats including transitional zones of Grey and White dunes to decline in the SAC as the units are not being installed in these habitats and thereby not causing direct or indirect creation of bare ground in the grey dunes ; or
- any disruption to or reduction in structural variations within Grey dune sward as the units are not being installed in this habitats,

Vegetation Composition

There are a three vegetation composition targets for each of the Grey and White dunes. They relate to the typical species and sub-communities to be found in the dune habitats; negative indicator species; and in the case of grey dunes, the presence of scrub and trees also. These conservation targets are not considered further as the Seabee units are not being installed in grey or white dune habitats.

4.2.1.2 Other Annex I habitats

[1140] Mudflats and sandflats not covered by seawater at low tide

This habitat type occurs on the beach at Portrane between the mean high water and mean low water marks, and its extent is illustrated in Map 5 of NPWS (2013a). The European Commission's

Interpretation Manual of European Union Habitats (EUR28) ([EC, 2013](#)), notes that Annex habitat type [1140] comprises diverse intertidal communities of particular importance as feeding grounds for wildfowl and waders. The location on the upper beach where it is proposed to locate Seabee units is a supratidal area above the mean spring high water line. It is thus not an intertidal sandflat and is not the Annex I habitat type '*[1140] Mudflats and sandflats not covered by seawater at low tide*'.

There are five conservation objective targets for this habitat type. As regards habitat area, the target is that the permanent area is stable or increasing. As regards community extent, the target is to maintain the extent of *Zostera* and *Mytilus* dominated communities. Given that the Seabee units are to be installed 10m above the high water mark, they are to be located 10m higher up the beach from this habitat type. Their installation shall not prevent the permanent habitat area remaining stable or increasing. Their installation shall not cause a decline in the extent of *Zostera* and *Mytilus* dominated communities.

The Seabee units are not going to be installed in any of the remaining Annex I habitats for which Rogerstown Estuary SAC has been designated. The estuary and saltmarsh habitat types are located in the main estuary and further north of the sand spit.

Likely significant effects as a result of habitat loss will not occur for any of the other European sites listed in Table 4.1 as they are located much further away from the site of proposed development.

4.2.1.3 Dune Restoration

It is possible and perhaps even likely that following future storm events with the Seabee units installed, the natural process of dune formation from strandline communities and succession from embryonic dune through to white dunes will re-start at this location. As the purpose of the Seabee protection works is to reduce the wave energy attacking the dunes it follows that embryonic dunes which form on the lee side of the Seabee units will not get washed away as frequently as they will without the Seabees in place.

Such an outcome has **not** been taken in to account at all in this screening exercise, as to do so would be contrary to settled case law of the CJEU (See *Briels and Others* ([C-521/12](#)), *Orleans and Others* ([C-387/15](#) and [C-388/15](#)) and *Commission v Germany* ([C-142/16](#))).

4.2.2 Aerial Noise and Visual disturbance

Rogerstown Estuary SAC is not designated for any qualifying populations of Annex II species. Thus, only the overwintering birds of Rogerstown Estuary SPA could potentially be disturbed by the installation of the Seabee units.

The site of proposed development is not located within the SPA, but is covered within SPA waterbird count sub-site OUL14 (Portrairie Beach). Appendix 7 of NPWS ([2013d](#)) shows dot density diagrams of waterbird distribution recorded during low tide surveys. These maps show that in this sub-site on a low tide –

- Light-bellied Brent Geese have been shown to forage in low numbers
- Oystercatcher have been shown to forage and roost in low numbers
- Grey Plover have been shown to roost in reasonable numbers

- Dunlin have been shown to roost in low numbers
- Black-tailed Godwit have been shown to forage in low numbers
- Redshank have been shown to forage in low numbers

Appendix 8 of NPWS (2013d) contains summary roost data and maps of roost locations. This confirms that only small roosting sites (containing 1-49 individuals) are located within 500m of the proposed development within the SPA. No feeding or roosting takes place by birds for which the site is designated where the Seabees are proposed to be installed.

It is intended that the Seabees are installed prior to the next winter season in advance of seasonal storms arriving. The works shall be complete before the core overwintering season. They are located immediately outside of the SPA, adjacent to a part of the site that does not appear to be critical in any way for the populations of waterbirds that overwinter in Rogerstown Estuary. The operational stage of the proposed development produces no stimuli to induce a behavioural change in wintering waterbird behaviour.

As such, there is no prospect of installation of the Seabee units resulting in any significant changes in the long term population trend; or number, range, timing and intensity of areas used by the 11 no. special conservation interest species of overwintering waterbirds. On this basis it is reasonable to exclude the possibility of likely significant aerial noise and visual disturbance effects on the overwintering birds of Rogerstown Estuary SPA.

Likely significant effects as a result of habitat loss will not occur for any of the other European sites listed in Table 4.1 as they are located much further away from the site of proposed development.

The possibility of disturbance at other more distant European sites designated for cetaceans and pinniped species is discussed in Section 4.2.4. No other European site listed in Table 4.1 is designated for any qualifying populations of Annex II species (other than cetaceans and pinnipeds). Thus there is no other pathway of potential effect on any other European site as a result of aerial noise or visual disturbance.

4.2.3 Water quality and associated habitat deterioration

There is no requirement to bring any polluting substances onto the beach at Portrane during construction stage, and there are no emissions to the marine environment as a result of the installation of the proposed development.

There is no possibility of any suspended sediments and /or contaminants escaping into the marine environment to provide a hydrological pathway of effect leading to a deterioration of wetland, marine and coastal habitats with respect to their water quality and favourable conservation status which are listed as QIs or SCIs for the Rogerstown Estuary European sites.

On this basis it is reasonable to exclude the possibility of likely significant water quality or associated habitat deterioration effects on the 9 no, Annex I habitats of Rogerstown Estuary SAC or wetlands of Rogerstown Estuary SPA. It is also reasonable to exclude the possibility of likely significant effects upon any more remote European site hydrologically linked to the site of proposed development by the sea.

4.2.4 Underwater Noise

As the units are to be located in a supratidal area of the beach at a distance varying between 9m and 25m up the beach from the mean spring high water line (as illustrated in drawings at Appendix B), all construction works shall occur in dry conditions.

There will be no marine works associated with the installation of the proposed development. There is no possibility of noise effects upon sensitive QIs as a result of underwater acoustic energy. On this basis it is reasonable to exclude the possibility of likely significant underwater noise disturbance effects on Harbour Seal; Grey Seal; or Harbour Porpoise in Lambay Island SAC or Rockabill to Dalkey Island SAC.

4.3 IN-COMBINATION WITH OTHER PLANS AND PROJECTS

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are considered. On this basis, relevant Local Area Plans (LAPs) were considered in terms of their potential to have in-combination effects with the proposed development. Local Area Plans considered include:

- Donabate Local Area Plan 2016²
- Kenure Rush Local Area Plan 2009³

In consultation with FCC, it was determined that there are no other relevant projects in Portrane that could lead to in-combination effects.

The LAPs listed above were reviewed and considered in terms of their potential to result in 'in-combination' effects likely to have a significant effect on any European site.

There are no appreciable effects above a *de minimis* threshold likely to result in significant effects as a result of the proposed development alone.

Of the other plans considered above, mitigation measures including a Management Plan for the Rogerstown Estuary SAC have been specified to ensure that no adverse effect upon the integrity of that European site.

When the effects of the proposed development are considered in-combination, there is no pathway of additive effect for significant cumulative or in-combination effects which can be considered to significantly affect the qualifying interests or conservation objectives of the European sites being assessed.

4.4 SUMMARY OF THE SCREENING ASSESSMENT

² <http://www.fingal.ie/planning-and-buildings/development-plans-and-consultations/adopted-local-area-plans/donabate-lap-2016-and-donabate-lap-2006---2012/>

³ <http://www.fingal.ie/planning-and-buildings/development-plans-and-consultations/adopted-local-area-plans/rush-kenure-local-area-plan/>

Having considered the possibility of likely significant effects on the 17 European sites within 15km of the proposed development, and in particular the 2 most proximate European sites under four impact pathways, evaluation and analysis has revealed that there are no likely significant detrimental effects upon reaching, achieving or delaying the conservation objective targets for any of the qualifying interests of sites listed in Table 4.1 generally, or Rogerstown Estuary SAC or Rogerstown Estuary SPA in particular.

5 CONCLUSION OF THE SCREENING ASSESSMENT

This report has been prepared by RPS on behalf of Fingal County Council. The purpose of the report is to document a screening for appropriate assessment that RPS has conducted on behalf of the Local Authority.

The Screening Assessment was completed in accordance with the approach set out at Section 2 of this report, and on the proposed development as described at Section 3 of the report. The potential impacts of the proposed development been considered in the context of the European Sites identified in Section 4, their Qualifying Interests and Special Conservation Interests and any conservation objectives which have been set.

From the findings of the Screening exercise, it is concluded that the proposed development:

- Is not directly connected with or necessary to the management of any European site;
- Will not give rise to potential significant effects on the Qualifying Interests or Special Conservation Interests of any European site; and
- Will not give rise to potential in-combination or cumulative effects with the other projects considered.

Having regard to the methodology employed and the findings of this screening exercise, it has been concluded that Stage 2 Appropriate Assessment is not required to be undertaken by the competent authority in relation to any European site.

REFERENCES

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APPENDIX A: EROSION AND CLIMATE ASSESSMENT REPORT AND COASTAL PROTECTION WORKS REPORT

APPENDIX B: LOCATION AND ARRANGEMENT OF SEABEE UNITS

APPENDIX C: ACCESS AND EGRESS ROUTE ALONG THE BEACH

APPENDIX D: DUNE EROSION PHOTOS AND FIGURES