



**An Roinn Tithíochta,  
Rialtais Áitiúil agus Oidhreachta**  
Department of Housing,  
Local Government and Heritage

# ***SCREENING FOR APPROPRIATE ASSESSMENT REPORT***

Application No. FS007605

2<sup>nd</sup> December 2022

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## Statement of Authority

This Screening for Appropriate Assessment Report has been undertaken by Dr [REDACTED] an experienced marine ecologist with a wide range of experience from conservation, developing a quality index tool for Water Framework Directive, habitat mapping, aquaculture to deep water reef ecology. She completed a Ph.D. in the polychaete taxonomy and ecology in NUIG. Following which she undertook Post-Doctoral research on shallow water hydrothermal vent ecosystems at the Institute of Marine Biology of Crete. For the last 11 years she has worked with the National Parks and Wildlife Service as a marine ecologist where she developed the Site Specific Conservation Objectives for all marine Special Areas of Conservation. In this position she also reviewed Appropriate Assessments for Aquaculture Licences and, as part of the statutory process, drafted Departmental responses to these. She has considerable experience in the Habitats Directive, Article 6 Assessments and the case law pertaining to them.

With NPWS she developed and delivered Article 17 monitoring programmes for Annex I habitats and Annex V species. She is on the Natura 2000 Marine Expert Working Group, the OSPAR Benthic Habitats Expert Group and MSFD Integrated Monitoring Programme working group. She has been on a number of research steering groups including the NPWS/EPA co-funded CLEAR project on restoration of coastal lagoons, EcoSystem Services on the VIBES project and the Ecostructure project [<https://www.ecostructureproject.eu>]. She has been Ireland's representative on the Marine and Coastal Biodiversity expert working group for the UN Convention on Biodiversity.

# 1 Introduction

## 1.1 Project Overview

As part of the Greater Dublin Drainage Project Irish Water are seeking a Foreshore Licence to conduct benthic sampling in a subtidal area to the north of Howth, Co. Dublin. Grab samples will be taken at stations in the vicinity of a proposed new outfall pipe.

## 1.2 Application documents submitted

A Foreshore licence application was received from Irish Water on 25<sup>th</sup> of November 2022. The following documents were submitted as part of this application:

- i. Application to carry out benthic sampling in a subtidal area to the north of Howth, Co. Dublin 25/11/2022
- ii. Site Map 30/09/2022
- iii. Site Map 30/09/2022
- iv. Survey Location Map 30/09/2022
- v. Report to inform Screening for Appropriate Assessment 28/09/2022
- vi. Risk Assessment - Annex IV species 28/09/2022
- vii. A report on environmental considerations 28/09/2022

## 1.3 Legislative background and AA process

Under Article 6.3 of the Habitats Directive (92/43/EEC) Member States are required to consider the potential effects of any project or plan which is not directly connected with, or necessary to, the management of a European site but is likely to have a significant effect on the site before a decision can be made to allow the plan or project to proceed. In order to ascertain if the plan or project, either alone or in-combination with other plans or projects, is likely to have significant effects on a European site an Appropriate Assessment of the implications of the plan or project on the site's conservation objectives is required. The first step in the process is screening to determine if an Appropriate Assessment is required.

Under the Foreshore Act, as amended, a lease or licence must be obtained from the Minister for Housing, Local Government & Heritage before carrying out activities within the Foreshore area. This area is defined as the HWM to the 12 nautical mile limit. As the Consenting Authority, the Department must carry out a screening for an Appropriate Assessment on any Foreshore application which may have significant effects on the conservation objectives of a European site. To enable the consenting authority to carry out its statutory obligations the applicant provides the Department with sufficient information to allow it to carry out a screening for an appropriate assessment.

This report presents the results of the Screening for Appropriate Assessment of the proposed project. It determines whether the proposed project, either alone or in-combination with other plans or projects, is likely to have significant effects on a European site. It will establish if a stage 2 appropriate assessment is required, thus meeting the Department's statutory obligations under the European Communities (Birds and Natural Habitats) Regulations 2011 to 2021 (the "Habitats Regulations"), to ensure compliance with the Habitats Directive (92/43/EEC).

## 1.4 Methodology

This report has been prepared with reference to the following guidelines and legislation:

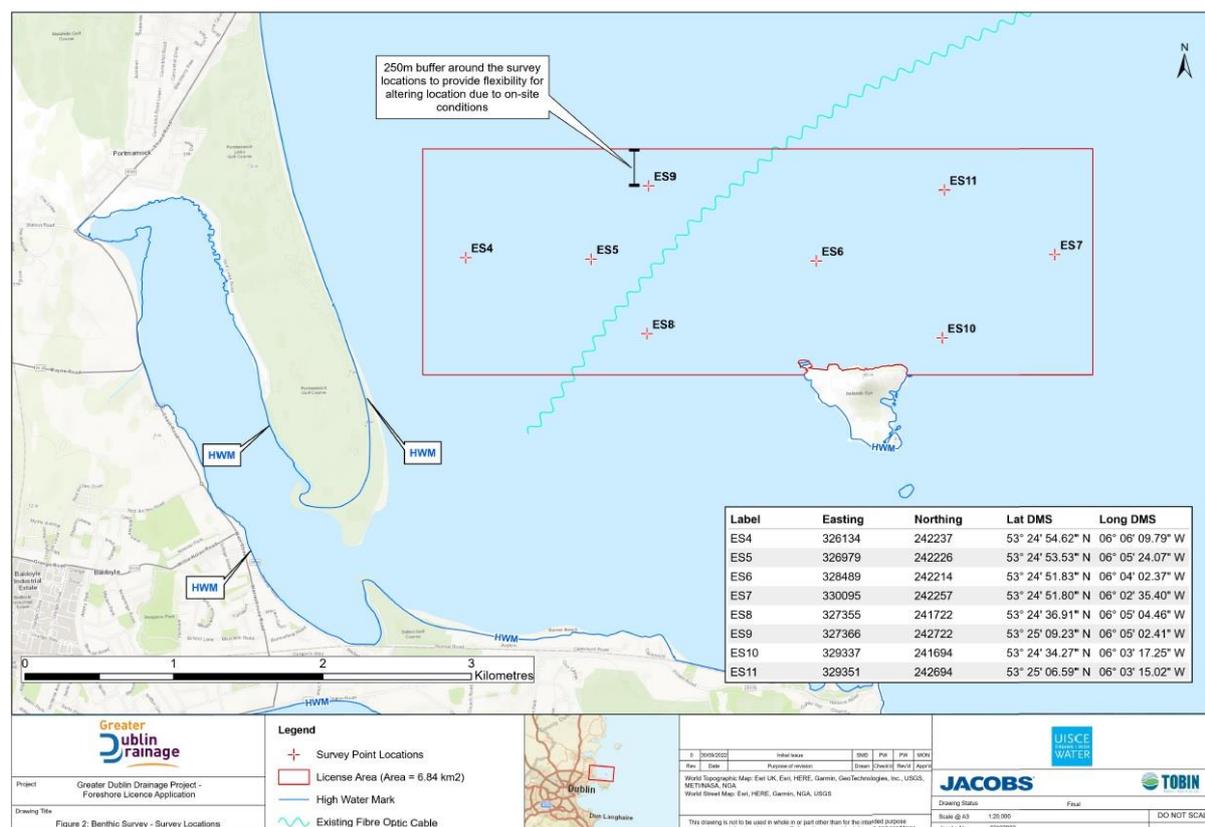
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna. Official Journal of the European Communities.
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version).
- European Communities (Birds and Natural Habitats) Regulations 2011. SI No. 477 of 2011.
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission 2019. Office for Official Publications of the European Communities, Luxembourg.
- Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities. DEHLG, 2009. Revision 2010.
- Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters. Department of Arts, Heritage and the Gaeltacht, 2014
- Appropriate Assessment Screening for Development Management OPR Practice Note PN01 March 2021
- Relevant case law

## 2 Project Description

Irish Water have commissioned benthic surveys in this area on four occasions since 2012. Eight baseline stations were sampled in July 2013, this survey was repeated in August 2017. To ensure that the baseline information is up-to-date Irish Water are now proposing to repeat the sampling survey of these eight stations.

### 2.1 Location

A proposed new outfall pipe runs from Maynetown due east through the Burrow at Portmarnock. It continues subtidally with the outfall located approximately 1km northeast of Ireland’s Eye. The eight sampling stations are positioned in the vicinity of the subtidal element of the outfall pipe.



**Figure 1** Proposed location of the benthic sampling stations.

The previous benthic surveys shows the seabed in the area in the vicinity of the outfall pipe to be that of fine sands to mixed sediment of gravelly sand with cobbles going to an area with a thin veneer of fine sands overlying mixed gravelly sand with shell. At the eastern end of the proposed pipeline sub-cropping of a fine sand veneer over a mixed gravelly seabed was noted in 2012 but the presence of more exposed gravels in 2017 indicate an area with highly mobile surface sediment. The survey area is in the shallow subtidal with the maximum depth of approximately 20m at the eastern end of the proposed pipeline. The Foreshore Licence Application Area lies within the 12nm limit.

### 2.2 Description of the proposed survey works

The proposed survey will take place over two days in daylight hours. The objective of the survey is to collect up-to-date baseline data in the vicinity of the proposed pipeline and the outfall area. The proposed works will consist of a benthic survey at eight locations along the

route of the pipeline. The works will include grab sampling, water quality sampling and drop-down video (DDV) transects.

Grab samples will be acquired using a Day grab with a sampling area of 0.1m<sup>2</sup>. Three replicate grab samples, two for macrofaunal analysis and one for granulometry, chemical determination and contamination, will be taken at each location. A single water sampling and profiling station will be taken a short distance from the proposed outfall a Niskin bottle and using a probe. Drop down video transects will take place at all eight locations.

Sampling will likely be carried out over a two-day period during daylight hours. While the exact vessel has not been identified it is likely to be approximately 12m in length and will be an appropriately licenced and crewed inshore survey vessel. It will adhere to mandatory water quality environmental control measures for vessels (including shipboard oil emergency plans and prevention of pollution) under the requirements of the MARPOL Convention and the Sea Pollution Act, 1991 (as amended). MARPOL (The International Convention for the Prevention of Pollution from Ships) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The Sea Pollution Act, 1991 enabled Ireland to ratify MARPOL.

### 3 Screening for Appropriate Assessment

#### 3.1 Management of Natura 2000 site/s

Plans or projects that are directly connected with or necessary to the management of a Natura 2000 site do not require AA. The proposed project is not directly connected with or necessary for the management of a Natura 2000 site. Therefore this project is subject to screening for Appropriate Assessment to determine if it alone, or in-combination with other plans or projects, is likely to cause significant effects to a European site.

#### 3.3 Identification of the relevant European site/s

Special Area of Conservation (SAC) were screened on the potential for connectivity between the proposed project and their qualifying interests. Potential connectivity was considered if there was overlap with the Foreshore Licence Application Area and an SAC (direct effects) or if the SAC was within range of the effects of the proposed activity (indirect effects).

##### 3.3.1 Annex I habitats

As these works are being undertaken in the marine environment, using the Source-Pathway-Receptor model (OPR 2021), only the marine and coastal Annex I habitats were considered in this screening process.

The Foreshore Licence Application Area overlaps with or is adjacent to the following SACs:

- Baldoyle Bay SAC
- Ireland's Eye SAC
- Rockabill to Dalkey Island SAC
- Malahide Estuary SAC
- Rogerstown Estuary SAC
- Lambay Island SAC
- Rogerstown Estuary SAC
- Howth Head SAC
- North Dublin Bay SAC
- South Dublin Bay SAC

These SACs are considered to be with the Zone of Influence of the proposed project.

##### 3.3.2 Annex II species

###### Migratory fish

Once they leave freshwater salmon migrate to their feeding grounds in the northern Atlantic. Recent studies have found that salmon populations migrate towards oceanographic fronts for feeding (Rikardsen *et al.*, 2021). Salmon from northwest Spain and southeast Ireland appear to move out to the shelf edge before crossing the Atlantic towards Greenland. Barry *et al.* (2020) found that individuals from Irish rivers in the northeast migrate out of the Irish Sea through the North Channel into deeper offshore waters further north. Atlantic salmon from Welsh SACs are also considered to follow prevailing currents north (Cefas, 2021). Therefore only SACs designated for Atlantic salmon in the southwest Irish Sea and in the vicinity of the Foreshore Licence Application Area are considered to be in the Zone of Influence of the proposed project.

The Freshwater Pearl Mussel utilises Atlantic salmon at a certain stage in its life cycle, River Lamprey and Sea lamprey are predators of salmon (OSPAR 2009). Therefore it is considered that if the salmon is significantly impacted by an activity there is a possibility that these

species may also be negatively affected. The Zone of Influence for these species was considered the same as that for Atlantic salmon.

Using this criteria one SAC, Slaney River Valley SAC, was identified to be considered further in the screening process.

### Marine mammals

After breeding most grey seals disperse away from their haul-out sites, therefore their usage of a particular SAC is very time and location specific. On this basis and considering available data on grey seal movements (e.g. Cronin *et al.*, 2011; SMRU Ltd, 2011; Russell and McConnell, 2014) there is potential for interactions between grey seals and projects 200km distant from the SAC for which they are designated. This is considered the Zone of Influence for this species.

In Ireland the foraging range for harbour seal ranges between 20km and 40km (Cronin 2010), using the precautionary principle that latter value was considered in the screening process and is taken as the Zone of Influence for this species.

Otters are a semi-aquatic species who use the marine environment for foraging. Otters that forage on the coast have flexible foraging times linked to the tides. The Zone of Influence for this species is 20km along the shore.

In Ireland there are a number of SACs designated for the cetaceans, harbour porpoise and common bottlenose dolphin. As these species are highly mobile species specific Management Units (MU) are used to assess to the effect of an activity on them. The Zone of Influence of a project which has the potential to impact on a species is considered to be the MU for that species which overlaps with the project. With respect to the proposed project the overlapping MU for harbour porpoise is the Celtic and Irish Seas; for the bottlenose dolphin it is the Irish Sea (IAMMWG, 2015).

Using this criteria five Irish, sixteen French, and five British sites were identified to be within the Zone of Influence of the proposed project. These are:

- Lambay island SAC
- Saltee Islands SAC
- Blasket Islands SAC
- Roaringwater Bay and Islands SAC
- Rockabill to Dalkey SAC
- Récifs et landes de la Hague
- Anse de Vauville
- Banc et récifs de Surtainville
- Chausey
- Baie du Mont Saint-Michel
- Estuaire de la Rance
- Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard
- Cap d'Erquy-Cap Fréhel
- Baie de Saint-Brieuc – Est
- Tregor Goëlo Est
- Côte de Granit rose-Sept-Iles
- Nord Bretagne DH

- Baie de Morlaix
- Abers - Côte des legends
- Ouessant-Molène
- Côtes de Crozon
- North Anglesey Marine / Gogledd Môn Forol
- West Wales Marine / Gorllewin Cymru Forol
- North Channel
- Bristol Channel Approaches / Dynesfeydd Môr Hafren
- Cardigan Bay

**Table 3.1** Special Area of Conservation (SAC) and their qualifying interests to be considered in the screening process.

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
Rockabill to Dalkey SAC [Site code IE003000]	Overlaps	Reefs [1170] Phocoena phocoena (Harbour Porpoise) [1351]	Out	SSC levels will be very low, localised and negligible against background conditions
Ireland's Eye SAC [Site code IE002193]	0.3km	Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Out	No Source-Pathway-Receptor link
Baldoyle Bay SAC [Site code IE000199]	0.6km	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410]	Out	SSC levels will be very low, localised and negligible against background conditions.
Malahide Estuary SAC [Site code IE000205]	2.5km	Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Out	SSC levels will be very low and SAC is too far survey area, therefore no Source-Pathway-Receptor link
Howth Head SAC [Site code IE000202]	2.7km	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	Out	No Source-Pathway-Receptor link

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
Rogerstown Estuary SAC [Site code IE000208]	9.3km	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 maritima</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]	Out	SSC levels will be very low and SAC is too far survey area, therefore no Source-Pathway-Receptor link
Lambay Island SAC [Site code IE000204]	9km	Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] <i>Halichoerus grypus</i> (Grey Seal) [1364] <i>Phoca vitulina</i> (Harbour Seal) [1365]	Out	SSC levels will be very low and SAC is too far survey area, therefore no Source-Pathway-Receptor link
North Dublin Bay SAC [Site code IE000206]	10km	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330] Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]	Out	SSC levels will be very low and SAC is too far survey area, therefore no Source-Pathway-Receptor link

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
South Dublin Bay SAC [Site code IE000210]	14.5km	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]		No Source-Pathway-Receptor link
Slaney River Valley SAC [Site code IE000781]	139km	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330] Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410] Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twait Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355] <i>Phoca vitulina</i> (Harbour Seal) [1365]	Out	No Source-Pathway-Receptor link
Saltee Islands SAC [IE000707]	167km	Mudflats and sandflats not covered by seawater at low tide [1140] Large shallow inlets and bays [1160] Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Submerged or partially submerged sea caves [8330] <i>Halichoerus grypus</i> (Grey Seal) [1364]	Out	No Source-Pathway-Receptor link

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
Roaringwater Bay SAC [IE000101]	Within MU for Harbour Porpoise	Large shallow inlets and bays [1160] Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] Submerged or partially submerged sea caves [8330] Phocoena phocoena (Harbour Porpoise) [1351] Lutra lutra (Otter) [1355] Halichoerus grypus (Grey Seal) [1364]	Out	No Source-Pathway-Receptor link
Blasket Islands SAC [IE002172]	Within MU for Harbour Porpoise	Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] Submerged or partially submerged sea caves [8330] Phocoena phocoena (Harbour Porpoise) [1351] Halichoerus grypus (Grey Seal) [1364]	Out	No Source-Pathway-Receptor link
Cardigan Bay [UK 0012712]	Within MU for Bottlenose Dolphin	Tursiops truncatus (Bottlenose Dolphin)	Out	No Source-Pathway-Receptor link
North Anglesey Marine / Gogledd Môn Forol [UK 0030398]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Bristol Channel Approaches / Dynesfeydd Môr Hafren [UK0030396]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
North Channel [UK 0030399]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
West Wales Marine / Gorllewin Cymru Forol [UK 0030397]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Récifs et landes de la Hague [FR2500084]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Anse de Vauville [FR2502019]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
Banc et récifs de Surtainville [FR2502018]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Chausey [FR2500079]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Baie du Mont Saint-Michel [FR2500077]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Estuaire de la Rance [FR5300061]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard [FR5300012]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Cap d'Erquy-Cap Fréhel [FR5300011]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Baie de Saint-Brieuc – Est [FR5300066]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Tregor Goëlo Est [FR5300010]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Côte de Granit rose-Sept-Iles [FR5300009]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Nord Bretagne DH [FR2502022]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Baie de Morlaix [FR5300015]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Abers - Côte des legends [FR5300017]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Ouessant-Molène [FR5300018]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
Côtes de Crozon [FR5302006]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
West Wales Marine / Gorllewin Cymru Forol UK0030397	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
North Channel UK0030399	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
Bristol Channel Approaches / Dynesfeydd Môr Hafren UK003039	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link
North Anglesey Marine / Gogledd Môn Forol [UK0030398]	Within MU for Harbour Porpoise	Phocoena phocoena (Harbour Porpoise) [1351]	Out	No Source-Pathway-Receptor link

### 3.3.3 Birds

A Special Protection Area (SPA) is considered to have connectivity if it either overlaps with the Foreshore Licence Application Area or is within 15km of this area. It is acknowledged that seabirds generally have large foraging ranges (Woodward *et al.* 2019) and may occasionally occur in the Foreshore Licence Application Area from more distant SPAs. If the survey area represents the outer extent of the foraging range of species, such as Manx Shearwater which have very large ranges, then the connectivity between it and SPAs for which the species is an SCI is considered to be insignificant.

Using the above criteria the following SPAs were considered to be within the Zone of Influence of the proposed project:

- Ireland’s Eye SPA [IE004117]
- Baldoyle Bay SPA [IE004016]
- Howth Head Coast SPA [IE004113]
- North Bull Island SPA [IE004006]
- Malahide Estuary SPA [IE004025]
- South Dublin Bay and River Tolka Estuary SPA [IE004024]
- Lambay Island SPA [IE004069]
- Rogerstown Estuary SPA [IE004015]

**Table 3.1** Special Protection Areas (SPA) and their qualifying interests to be considered further in the screening process.

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
Ireland’s Eye SPA [IE004117]	overlaps	Cormorant [A017] Herring Gull [A184] Kittiwake [A188] Guillemot [A199] Razorbill [A200]	Out	No disturbance from an additional vessel in busy maritime area.
Baldoyle Bay SPA [IE004016]	0.7km	Shelduck [A048] Ringed Plover [A137] Golden Plover [A140] Grey Plover [A141] Bar-tailed Godwit [A157] Wetland and Waterbirds [A999]	Out	No disturbance from an additional vessel in busy maritime area.
Howth Head Coast SPA [IE004113]	3km	Kittiwake [A188]	Out	No disturbance from an additional vessel in busy maritime area.

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
North Bull Island SPA [IE004006]	3.5km	Light-bellied Brent Goose [A046] Shelduck [A048] Teal [A052] Pintail [A054] Shoveler [A056] Oystercatcher [A130] Golden Plover [A140] Grey Plover [A141] Knot [A143] Sanderling [A144] Dunlin [A149] Black-tailed Godwit [A156] Bar-tailed Godwit [A157] Curlew [A160] Redshank [A162] Turnstone [A169] Black-headed Gull [A179] Wetland and Waterbirds [A999]	Out	No disturbance from an additional vessel in busy maritime area.
Malahide Estuary SPA [IE004025]	3km	Great Crested Grebe [A005] Light-bellied Brent Goose [A046] Shelduck (Tadorna tadorna) [A048] Pintail [A054] Goldeneye [A067] Red-breasted Merganser [A069] Oystercatcher [A130] Golden Plover [A140] Grey Plover [A141] Knot [A143] Dunlin [A149] Black-tailed Godwit [A156] Bar-tailed Godwit [A157] Redshank [A162] Wetland and Waterbirds [A999]	Out	No disturbance from an additional vessel in busy maritime area.

Site and Code	Distance from Survey Area	Qualifying Interests	Screened In/Out	Potential source of impact
South Dublin Bay and River Tolka Estuary SPA [IE004024]	4.5km	Light-bellied Brent Goose [A046] Oystercatcher [A130] Ringed Plover [A137] Grey Plover [A141] Knot [A143] Sanderling [A144] Dunlin [A149] Bar-tailed Godwit [A157] Redshank [A162] Black-headed Gull [A179] Roseate Tern [A192] Common Tern [A193] Arctic Tern [A194] Wetland and Waterbirds [A999]	Out	No disturbance from an additional vessel in busy maritime area.
Lambay Island SPA [IE004069]	8km	Fulmar [A009] Cormorant [A017] Shag [A018] Greylag Goose [A043] Lesser Black-backed Gull [A183] Herring Gull [A184] Kittiwake [A188] Guillemot [A199] Razorbill [A200] Puffin [A204]	Out	No disturbance from an additional vessel in busy maritime area.
Rogerstown Estuary SPA [IE004015]	9km	Greylag Goose [A043] Light-bellied Brent Goose [A046] Shelduck [A048] Shoveler [A056] Oystercatcher [A130] Ringed Plover [A137] Grey Plover [A141] Knot [A143] Dunlin [A149] Black-tailed Godwit [A156] Redshank [A162] Wetland and Waterbirds [A999]	Out	No disturbance from an additional vessel in busy maritime area.

### 3.2 Identification of possible effects

A European site is only at risk of likely significant effects where the Source-Pathway-Receptor link exists between the proposed development and the European site (OPR 2021).

### 3.2.1. Annex I habitats

The potential environmental impacts on Annex I Habitats as a result of the proposed benthic survey is an increase in suspended sediment concentrations (SSC) during the sampling process. If the increases in SSC is sufficiently large and remains in the water column for some time it can drift over adjacent communities or habitats. Here it can lead to smothering of sessile species, clogging of the feeding apparatus of filter feeders, an increase in scouring and it can render hard surfaces unsuitable for epibenthic settlement. There is therefore the potential for habitat loss and loss of structure and function of Annex I habitats in adjacent SACs.

### 3.2.2 Annex II species

#### Marine mammals

In Ireland Annex II species which are marine mammals include the European otter, grey seal, harbour seal, harbour porpoise and bottlenose dolphin. Marine mammals may be impacted by disturbance from injury due to collision with survey vessels and from the effects of underwater noise.

Vessel strikes are a known cause of mortality in marine mammals (Laist et al., 2001; Wilson et al., 2020). Injuries as a result of collision may also result in individuals becoming vulnerable to secondary infections. Slower vessels following a consistent trajectory allow animals the opportunity to avoid collisions. The risk of fatality is also reduced if vessels are moving slowly.

#### Migratory fish

Annex II fish species which are protected under the Habitats Directive include Twaité Shad, Sea Lamprey, River Lamprey and Atlantic Salmon. European sites are designated only for the freshwater stages of these species but any project related impact that has significant effects on the marine stage of their life cycle has the potential to lead to ex situ effects on these species. This may therefore have negative impacts on their conservation objectives. Increased levels of suspended sediment concentrations may negatively affect their migration and predator-prey interactions (Kjelland, et al., 2015)

### 3.2.3. Birds

Different seabird species exhibit varying sensitivities to noise. Some species, such as herring gull, lesser black-backed gull and to a lesser extent kittiwake, display habituated responses to additional anthropogenic noise. Other species groups, such as divers, are sensitive to anthropogenic disturbance (Furness *et al.*, 2012, Black *et al.*, 2015, Dierschke *et al.*, 2017, Fleissbach *et al.*, 2019).

Breeding seabirds nesting on shorelines or structures in proximity to human activities can be disturbed from their nests. Similarly other seabird aggregations or individual birds may be disturbed by presence of a vessel or on its approach (Althouse *et al.*, 2019, Furness *et al.*, 2012, Dierschke *loc. cit.*, Fleissbach *loc. cit.*).

Wildfowl differentially respond to visual disturbance depending on their activity, the species concerned and context of the stimulus (Cutts *et al.*, 2013). In particular foraging or roosting aggregations of dabbling ducks or geese may be sensitive to visual disturbance. Waders respond differentially to visual disturbance depending on factors that include the species involved, flock size and context of their location (i.e. industrialised areas) (Cutts *loc. cit.*, Goss-Custard *et al.* 2019).

Disturbance and displacement of species may have consequences at individual and population levels (Joint SNCB note 2017). The survey works may also have effects on the prey

species of these birds, reducing their availability which may then adversely affect survival and productivity.

#### 3.2.4 Accidental spillage

This is a busy navigation area in which a lot of fishing, commercial and recreational vessels operate. Given that the surveys would amount to a single extra vessel in this area the likelihood of a collision resulting in a pollution event is considered insignificant. As vessels are required by law to adhere to regulations governing accidental leakages and spillages similarly the likelihood of such an occurrence is considered very unlikely.

### 3.4 Assessment of Likely Significant Effects

#### 3.4.1 Annex I Habitats

The sediment in the proposed survey area is largely mixed sediment with coarse fractions of gravelly sands and cobbles or shell, and some fine sands. The substrate in the eastern end of the site suggests highly mobile surface sediment. Given the largely coarse nature of the sediment any suspended sediment plume is likely to be localised and is negligible against background conditions. Therefore the possibility of likely significant effects on the Annex I habitat Reefs in the adjacent SAC as a result of the proposed project **can be excluded**.

#### 3.4.2 Annex II species

The proposed survey area is in close proximity to Dublin Port and is also a popular area in close proximity to Howth and Malahide marinas. The area is also fished by a variety of metiers. Therefore the likelihood of significant effects presence of an additional vessel in this area is negligible. The survey vessel will be moving slowly between stations and stationary while sampling.

Shipping noise may be audible to Atlantic salmon and Lamprey species however the addition of a single vessel to this busy maritime area would not significantly impact on these species passing through this Foreshore Licence Application Area. As stated above any sediment plume from the grab sampling will be localised and indistinguishable from background conditions. The possibility of likely significant effects as a result of the proposed project on migratory fish species **can be excluded**.

There is potential for Otter, both species of seals and Harbour porpoise to be present in the proposed Foreshore Licence Application Area. The presence of a single additional slow moving vessel in this busy maritime area is unlikely to have a significant impact on these species. The possibility of likely significant effects on these marine mammals within the Zone of Influence of the proposed project **can be excluded**.

#### 3.4.2 Birds

While it is acknowledged that species which use the area for feeding, loafing and breeding may be disturbed by the activities of the survey vessel, any visual or above water noise disturbance from an addition vessel in this busy maritime area is unlikely to be felt against background levels. Given the short duration of the proposed survey, i.e. two day, the significance of effects on birds, including due to visual or overwater noise disturbance, will be temporary and has been assessed as imperceptible. Similarly the effects on prey species as a result of the proposed works given the total available foraging area is limited, both spatially and temporally. Therefore the possibility of likely significant effects as a result of the proposed project on bird species within the Zone of Influence of the proposed project **can be excluded**.

### 3.4.3 In-combination effects

Article 6(3) of the Habitats Directive requires that AA be carried out in respect of any plan or project which is likely to have a significant effect on one or more European sites, “either individually or in combination with other plans or projects”. Therefore, regardless of whether or not the likely effects of a plan or project are significant when considered in isolation, the potential for the plan or project to significantly affect European sites in combination with other past, present or foreseeable future plans or projects must also be assessed.

A review of the Department’s Foreshore Licence Application site and the Fingal County Council web site on the 1<sup>st</sup> of December 2022. Considering the nature of the proposed survey and its short duration no plans or project were identified with the potential to have in-combination effects with the proposed survey. Therefore likely significant in-combination effects between this project and other plans or project on the conservation objectives of Natura 2000 sites considered in this report **can be excluded** at this stage.

## 4. Conclusion

### 4.1 Appropriate Assessment Screening Conclusion

A benthic survey of eight stations are to be sampled in a subtidal area north of Ireland's Eye. This survey will take place over two days and in daylight hours. Using the Source-Pathway-Receptor approach all sites and their qualifying interests that might be affected by this project were identified. Direct or indirect effects on the qualifying interests, either alone or in-combination with other projects, as a result of the proposed project were assessed.

In the absence of mitigation this assessment concluded that likely significant effects as a result of the proposed project, alone or in-combination with other plans and projects, on the conservation objectives of European sites can be excluded and therefore an **Appropriate Assessment is not required**.

## 5. References

Althouse, M.A., Cohen, J.B., Karpanty, S.M., Spendelow, J.A., Davis, K.L., Parsons, K.C. and Luttazi, C.F., 2019. Evaluating response distances to develop buffer zones for staging terns. *The Journal of Wildlife Management*, 83(2), pp.260-271.

Barry, J., Kennedy, R., Rosell, R., Roche, W., 2020. Atlantic salmon smolts in the Irish Sea: First evidence of a northerly migration trajectory. *Fisheries Management and Ecology*. 27. 10.1111/fme.12433.

Black, J., Dean B.J., Webb A., Lewis, M., Okill D. & Reid J.B., 2015. Identification of important marine areas in the UK for red-throated divers (*Gavia stellata*) during the breeding season. JNCC Report No 541.

Cefas, 2021. Salmon Life Cycle. URL: <https://www.cefas.co.uk/iys/salmon-life-cycle/> [accessed September 2022]

Cronin, M.A., 2010. The status of the harbour seal (*Phoca vitulina*) in Ireland. *NAMMCO Sci. Publ.* 8: 129-142.

Cronin, M. A., M. J. Jessopp and D. Del Villar., 2011. Tracking grey seals on Ireland's continental shelf. Unpublished Reports. Cutts N, Hemingway K and Spencer J (2013). The Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects. Produced by the Institute of Estuarine and Coastal Studies (IECS). Version 3.2.

Cutts N, Hemingway K and Spencer J., 2013. The Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects. Produced by the Institute of Estuarine and Coastal Studies (IECS). Version 3.2.

Dierschke, V; Furness, R.W., Gray, C.E.; Petersen, I.K., Schmutz, J., Zydalis, R. & Daunt, F., 2017. Possible Behavioural, Energetic and Demographic Effects of Displacement of Red-throated Divers. JNCC Report No. 605. JNCC, Peterborough.

Fleissbach, K. L., Borkenhagen, K., Guse, N., Markones, N., Schwemmer, P. and Garthe, S., 2019. A Ship Traffic Disturbance Vulnerability Index for Northwest European Seabirds as a Tool for Marine Spatial Planning. *Frontiers in Marine Science*. DOI: 10.3389/fmars.2019.00192

Furness, R.W., Wade, H.M. & Masden, E.A., 2012. Assessing vulnerability of marine bird populations to offshore wind farms. *Journal of Environmental Management* 119: 56-66

Goss-Custard, J.D., Hoppe, C. H., Hood, M.J., and R. A. Stillman, 2019. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. doi: 10.1111/ibi.12768

IAMMWG, 2015. Management units for cetaceans in UK waters (January 2015). JNCC Report No. 547, JNCC Peterborough. Available from: <https://data.jncc.gov.uk/data/f07fe770-e9a3-418d-af2c-44002a3f2872/JNCC-Report-547-FINAL-WEB.pdf>

Joint SNCB Note, 2017 Interim Displacement Advice Note  
<https://hub.jncc.gov.uk/assets/9aecb87c-80c5-4cfb-9102-39f0228dcc9a>  
[Last updated: 2022]

Kjelland, M.E., Woodley, C.M., Swannack, T.M., 2015. A review of the potential effects of suspended sediment on fishes: potential dredging-related physiological, behavioral, and

transgenerational implications. *Environ Syst Decis* 35:334–350 DOI 10.1007/s10669-015-9557-2

Laist, D.W., Knowlton, A.R., Mead, J.G., Collet, A.S. and Podesta, M., 2001. Collisions between ships and whales. *Marine Mammal Science* 17: 35-75.

OPR, 2021. Office of the Planning Regulator, March 2021 OPR Practice Note PN01.  
<https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf>

OSPAR, 2009b London: OSPAR Commission Biodiversity Series. Background Document for Sea lamprey *Petromyzon marinus*. Publication no. 431/2009. 30 pp Rikardsen *et al.*, 2021

Russell, D.J.F., Jones, E.L. and Morris, C.D., 2017. Updated seal usage maps: The estimated at-sea distribution of grey and harbour seals. *Scottish Marine and Freshwater Science* 8(25): 25 pp. Available from:  
<https://data.marine.gov.scot/dataset/updated-seal-usage-maps-estimated-sea-distribution-grey-and-harbour-sea>

SMRU Ltd, 2011. Utilisation of space by grey and harbour seals in the Pentland Firth and Orkney waters. Scottish Natural Heritage Commissioned Report No. 441. Seal Mammal Research Unit.

Wilson, C.M., Wilding, C.M. and Tyler-Walters, H. (2020). *Cetorhinus maximus* Basking shark. In Tyler-Walters H. and Hiscock K. (eds) *Marine Life Information Network: Biology and Sensitivity Key Information Reviews*. Available from:  
<https://www.marlin.ac.uk/species/detail/1438>

Woodward, I., Thaxter, C.B., Owen, E. & Cook, A.S.C.P., 2019. Desk-based revision of seabird foraging ranges used for HRA screening, Report of work carried out by the British Trust for Ornithology on behalf of NIRAS and The Crown Estate, ISBN 978-1-912642-12-0.

## 6. Site Specific Conservation Objectives

All others are Version 1 of the site specific conservation objectives which were on NPWS's website at the time of writing. Site specific conservation objectives were not available for Cardigan Bay/ Bae Ceredigion [UK 0012712], Bristol Channel Approaches / Dynesfeydd Môr Hafren [UK0030396] or any of the French sites at time of writing.

Baldoyle Bay SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000199.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000199.pdf)

Ireland's Eye SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO002193.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002193.pdf)

Rockabill to Dalkey

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO003000.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO003000.pdf)

Howth Head SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000202.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000202.pdf)

Malahide Estuary SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000205.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000205.pdf)

Rogerstown Estuary SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000208.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000208.pdf)

Lambay Island SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000204.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000204.pdf)

North Dublin Bay SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000206.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000206.pdf)

South Dublin Bay SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000210.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000210.pdf)

Slaney River Valley SAC

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000781.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000781.pdf)

Saltee Islands SAC 000707

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000707.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000707.pdf)

Blasket Islands SAC IE002172

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO002172.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002172.pdf)

Roaringwater Bay and Islands SAC IE000101

[https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000101.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000101.pdf)

North Anglesey Marine / Gogledd Môn Forol UK0030398

<https://data.jncc.gov.uk/data/f4c19257-2341-46b3-8e29-49665cd8f3d2/NorthAnglesey-Conservation-Advice.pdf>

North Channel UK0030399

<https://data.jncc.gov.uk/data/be0492aa-f1d6-4197-be22-e9a695227bdb/NorthChannel-conservation-advice.pdf>

West Wales Marine / Gorllewin Cymru Forol UK0030397

<https://data.jncc.gov.uk/data/029e40f3-5f67-4168-b10d-8730f2c40e0a/WWM-conservation-advice.pdf>