Appendix A

Report to Inform Screening for Appropriate Assessment

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

A TETRA TECH COMPANY

PARK WIND
JERA GROUP

Energy for generations

ORIEL WIND FARM PROJECT

Report to Inform Screening for Appropriate Assessment

MDR1520B
Oriel Wind Farm Project
Report to Inform Screening
for Appropriate Assessment
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Glossary

Term	Meaning
The Applicant	This is Oriel Windfarm Ltd.
Birds Directive	European Parliament and Council Directive 2009/147/EC on the conservation of wild birds, a key legislative measure for the protection of birds in the European Union.
Catchment	An area of land contributing to a river, lake or other water body.
Cumulative Impacts	Impacts that result from incremental changes caused by other reasonably foreseeable actions alongside the project in question. This includes the impact of all other developments that were not present at the time of data collection (surveys etc.) (definition derived from DMRB (Highways Agency *et al.,* 2008)).
Foreshore	The area of the land and seabed between the high-water mark of ordinary or medium tides and the 12 nautical mile limit.
Habitat	The natural home or environment of an animal, plant, or other organism.
Joint Bay	These are concrete lined chambers, that provide a clean and dry environment for jointing the sections of cable together. Link boxes and communication chambers (C2) will also be required along the onshore cable route adjacent to each JB. These are small chambers which house connections between the joints for fibre optic cables, cable shielding and other auxiliary equipment.
Landfall	The area in which the offshore export cable make landfall and is the transitional area between the offshore cabling and the onshore cabling. The landfall is proposed at Dunany Point.
Magnitude	Size, extent and duration of an impact.
Migration	The regular seasonal movement, often north and south along a flyway, between breeding and wintering grounds.
Mitigation Measure	Measure which would avoid, reduce, or remediate an impact.
Onshore cables	Cables that transfer power from the offshore cable to the onshore substation. This includes the underground cable and its associated underground components (joint bays and link boxes). It will be located in the onshore cable route between the landfall and the onshore substation
Onshore Cable Route	The route of the proposed underground electrical cables between the proposed landfall location and the proposed onshore substation site.
Offshore Substation (OSS)	An offshore substation is a pre-fabricated offshore structure housing electrical equipment to provide a range of functions, such as changing the voltage.
Onshore Substation Site	The site location of the proposed onshore substation.
Ornithology	Ornithology is a branch of zoology that concerns the study of birds.
Oriel Wind Farm Project	The subject of this AA.
The Project	The project as a whole, including the onshore and offshore elements.
Sensitivity	Vulnerability of a sensitive receptor to change.

Acronyms

Term	Meaning
AA	Appropriate Assessment
ABP	An Bord Pleanála
AIS	Air Insulated Switchgear
BoCCI	Birds of Conservation Concern in Ireland
BTO	British Trust for Ornithology
CMU	Catchment Management Unit
CJEU	Court of Justice of the European Union
CO	Conservation Objective
DAERA	Department of Agriculture, Environment and Rural Affairs (Northern Ireland)
DaS	Dumping at Sea
DCCAE	Department of Communications, Climate Action and Environment
DECC	Department of the Environment, Climate and Communications
DoEHLG	Department of the Environment, Heritage and Local Government
DoENI	Department of the Environment Northern Ireland
DoHLGH	Department of Housing, Local Government and Heritage
EC	European Commission
EIS	Environmental Impact Statement
EMF	Electromagnetic Field
EU	European Union
GIS	Gas Insulated Switchgear
HDD	Horizontal Directional Drilling
HWM	High water Mark
IAQM	Institute of Air Quality Management
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
LCC	Louth County Council
LSE	Likely Significant Effect
MAC	Maritime Area Consent
MAPA	Maritime Area Planning Act
NE	Natural England
NECP	National Energy and Climate Plan
NIEA	Northern Ireland Environment Agency
NIS	Natura Impact Statement
NMPF	National Marine Planning Framework
NPWS	National Parks and Wildlife Services
NRA	National Roads Authority
NRW	Natural Resources Wales
OPR	Office of the Planning Regulator
ORE	Offshore Renewable Energy
OREDP	Offshore Renewable Energy Development Plan
QI	Qualifying Interests
RBMP	River Basin Management Plan
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation

Term	Meaning
SCI	Special Conservation Interests
SCOS	Special Committee On Seals
SEAI	Sustainable Energy Authority of Ireland
SNCBs	Statutory Nature Conservation Bodies
SNH	Scottish Natural Heritage
SPA	Special Protected Areas
TJB	Transition Joint Bay
ZoI	Zone of Influence

Units

Term	Meaning
km	Kilometre
km^2	Square kilometre
kV	Kilovolt
m	Metre
m^2	Square metre
mm	Millimetre
MW	Megawatt

1 INTRODUCTION

1.1 Scope of report

RPS Group Limited (RPS) was commissioned by the Applicant to produce this report to inform screening for Appropriate Assessment (AA). This report has been prepared to accompany an application by the Applicant for planning permission from An Bord Pleanála (ABP), for a proposed offshore wind farm, and associated works within, and offshore from, Co. Louth (hereafter 'the Project').

An assessment of whether the Project, alone or in combination with other plans and projects, is likely to have a significant effect on any European site(s) in view of best scientific knowledge and the Conservation Objectives (COs) of the site(s) has been completed within this report.

The purpose of this report is to inform the Stage 1 screening to be undertaken by the relevant Competent Authority or Public Authority as the case may be.

1.2 Legislative context

With the introduction of the Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora) came the obligation to establish the Natura 2000 network, comprising a network of areas of highest biodiversity importance for rare and threatened habitats and species across the European Union (EU).

The Natura 2000 network of sites comprises Special Areas of Conservation (SACs) designated under legislation transposing the obligations under Directive 92/43/EEC; and Special Protection Areas (SPAs) classified under the Birds Directive (Directive 2009/147/EC on the conservation of wild birds). SACs and SPAs (including candidate and proposed sites) make up the pan-European network of Natura 2000 sites, and they are referred to collectively as "European sites".

In this report, candidate and proposed SACs and SPAs are referred to as "SACs" and "SPAs" throughout the appraisal, and there is no distinction made between candidate/proposed sites and European sites as they have the same level of protection as a matter of domestic law and, therefore, the screening for the appropriate assessment procedure does not treat them differently. For the purposes of a screening for appropriate assessment, they are one and the same.

SACs are designated for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are designated for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is designated correspond to the Qualifying Interests (QIs) of the sites in the case of SACs, and Special Conservation Interests (SCIs) of the sites in the case of SPAs.

From these QIs and SCIs, the COs of the site are derived.

1.2.1 The Habitats Directive

Article 6(3) of the Habitats Directive requires that "*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and if appropriate, after having obtained the opinion of the general public*".

Thus, Article 6(3) provides a two-stage process:

- The first stage involves a screening for appropriate assessment to determine whether the relevant plan or project is likely to have a significant effect on a European site or sites; and

- The second stage arises where, having screened the Project, the relevant public authority determines that an appropriate assessment is required, in which case it must then carry out that appropriate assessment.

The planning authority shall determine that an appropriate assessment of a project is required where the project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening that the project, individually or in combination with other plans or projects, will have a significant effect on a European site.

1.2.2 Irish legislation

For the purposes of applications for planning permission, Part XAB of the Planning and Development Act 2000, as amended (the 2000 Act) implements the obligations under Article 6(3) into Irish law. In relation to other consent regimes (including the Dumping at Sea (DaS) framework under the Dumping at Sea Act 1996), the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended (the 2011 Regulations), transpose those obligations.

The Maritime Area Planning Act 2021 (MAPA) provides for new consenting processes for foreshore licences, foreshore leases and planning permissions for various marine projects, including Offshore Renewable Energy (ORE) infrastructure. It provides that two separate consents are required for the development of (ORE) projects. Firstly, a Maritime Area Consent ("MAC") is required to occupy a delineated maritime area; and, secondly, a development consent is required to allow for the development within that area. For the purposes of applications for planning permission, Part XAB of the Planning and Development Act 2000, as amended (the 2000 Act) also applies in the maritime area. This report has been drafted in support of an application for planning permission, and as such the provisions of the Part XAB of the Planning and Development Act 2000, as amended, apply.

1.2.3 UK departure from the EU

It is recognised that following the United Kingdom's departure from the European Union, SACs and SPAs in the UK are no longer considered "Natura 2000 sites" for the purpose of an assessment pursuant to Article 6(3) of the Habitats Directive and are instead part of the UK national site network. However, pursuant to the UK's Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, those sites still retain the same protection under UK law as they did prior to the UK's exit from the EU and are still referred to as European sites.

In these circumstances, and consistent with Ireland's obligations as a signatory to the Bern Convention on the Conservation of European Wildlife and Natural Habitats, to which the Birds and Habitats Directives give effect, and in order to ensure the highest level of protection for the species and habitats protected by those Directives, the following assessment includes an assessment of relevant European sites now forming part of the UK national site network and previously forming part of the Natura 2000 network of sites.

This will enable the competent authorities to ensure that there will be no adverse effect on the integrity of those European sites within the UK national site network in addition to those in the Natura 2000 network.

1.2.4 Step-wise procedure

According to European Commission (EC) guidance documents 'Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021); 'Guidance document on wind energy developments and EU nature legislation' (EC, 2020); and 'Managing Natura 2000 sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC' (EC, 2019), the obligations arising under Article 6 establish a step-wise procedure for the consideration of plans and projects affecting European sites as follows, and as illustrated in Figure 1-1.

The first part of this procedure consists of a pre-assessment (or screening) stage to determine whether, firstly, a project is directly connected with or necessary to the management of the site, and secondly, whether it is likely to have a significant effect on the site. This part is governed by the first sentence of Article 6(3).

The second part of the procedure, governed by the second sentence of Article 6(3), relates to the appropriate assessment and the decision of the competent national authority (or the 'Public Authority' under the 2011 Regulations) as to whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site.

A third part of the procedure (governed by Article 6(4)) comes into play if, despite a negative assessment (i.e., is not able to conclude that there will be no adverse effects on the integrity of a European site), it is proposed not to reject a project but to give it further consideration. In this case Article 6(4) allows for derogations from Article 6(3) under certain conditions.

The extent to which the sequential steps of Article 6(3) apply to a project depends on several factors, and in the sequence of steps, each step is influenced by the previous step. The order in which the steps are followed is therefore essential for the correct application of Article 6(3).

Each step determines whether a further step in the process is required. If, for example, the conclusion at the end of a Stage 1 screening appraisal is that significant effects on European sites can be excluded in the absence of any best practice or targeted measures intended to avoid or reduce the harmful effects of the project on European sites (i.e., designed-in measures and further mitigation), there is no requirement to proceed to the next step.

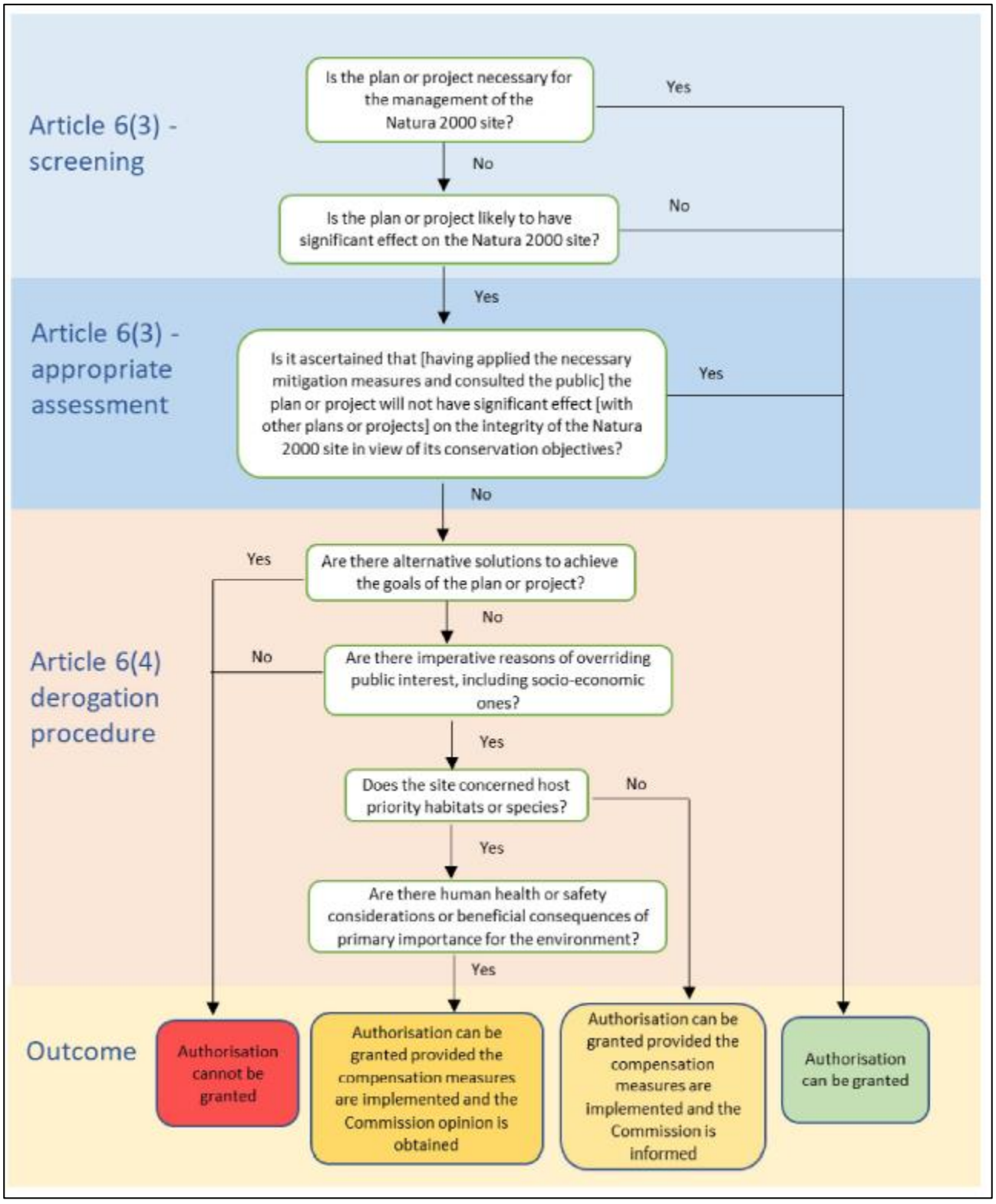


Figure 1-1: Step-wise procedure of Article 6 of the Habitats Directive (from EC, 2021).

1.3 Document structure

This report is structured as follows:

- **Section 1: Introduction** – This section defines the scope of the report setting out the legislative context which underpins the Stage 1 appraisal;
- **Section 2: Project** – This section describes the Project and is the basis of the subsequent Stage 1 appraisal to inform a screening for appropriate assessment that follows;
- **Section 3: Methodology** – This section sets out the methodology followed, and guidance documents used in conducting a Stage 1 screening to inform a screening for appropriate assessment of the implications of the Project on European sites;
- **Section 4: Stage 1 screening appraisal to inform screening for Appropriate Assessment** – This section contains a preliminary examination and analysis to understand whether or not the Project is likely to have a significant effect on any European site(s). This is the Stage 1 screening appraisal. It has been undertaken in view of best scientific knowledge, in light of the COs of the sites concerned to inform the Competent Authority responsible for undertaking screening for appropriate assessment. Measures intended to avoid or reduce the harmful effects of the Project on European sites (i.e., “mitigation measures”) or best practice measures have not been considered in the screening stage appraisal. The appraisal considers the Project alone and in-combination with other plans/projects. The key findings of the screening appraisal are summarised; and
- **Section 5: Conclusion –** This section provides the concluding statement of the screening appraisal to inform screening for Appropriate Assessment, and whether or not a Natura Impact Statement (NIS) must be prepared in accordance with relevant guidance and regulations.

2 PROJECT DESCRIPTION

The Project will consist of the following principal elements within the planning application boundary as shown on Figure 2-1. A full description of the Project is provided in the Natura Impact Statement:

- Offshore renewable energy infrastructure in the outer maritime area between approximately 6 km south of Cooley Point and approximately 10 km north-east of Dunany Point across an offshore wind farm area of approximately 27.7 km^2 and consisting of the following:
  - 25 No. offshore wind turbines with a maximum tip height of 270 m above the Lowest Astronomical Tide (LAT) attached to the seabed by monopile foundations with associated scour protection and with a combined Maximum Export Capacity of 375 MW;
  - A network of 41 km of 66 kV subsea inter-array cables linking each of the proposed offshore wind turbines to the offshore substation including associated cable protection; and
  - 1 No. offshore substation with a height of 48 m above LAT attached to the seabed by a monopile foundation with associated scour protection. This includes a prefabricated structure containing electrical equipment and ancillary equipment including a telecommunications mast.
- A single 16 km long 220 kV subsea export cable and associated cable protection located within an offshore cable corridor of approximately 25 km^2 between the south-west corner of the offshore wind farm area and a landfall which is situated approximately 700 m south of Dunany Point.
- An underground Transition Joint Bay (TJB) at the proposed landfall in the townland of Dunany. The TJB consists of a fully buried concrete chamber with a total area of 32.5 m^2, where the proposed offshore export cable will be connected to the underground onshore export cables.
- Installation of underground onshore export cables, approximately 20.1 km in length, connecting the proposed TJB in the townland of Dunany to the proposed onshore substation in the townland of Stickillin. The cables will be laid in a standard trench of approximately 700 mm in width and 1,425 mm in depth.
- Installation of fibre optic, telecommunication and other associated cabling all carried in underground ducts within the proposed trench.
- Installation of 2 No. additional fibre optic cable ducts within the underground cable trench of approximately 1,500 mm in width, from the proposed onshore substation in the townland of Stickillin along the N33 for approximately 3 km and connection into a 110 kV double wooden poleset on the existing Drybridge-Louth 110 kV overhead line in the townland of Richardstown, (Electoral Division of Stabannan).
- Installation of the cables will require associated joint bays and link boxes, located at approximately 700 m intervals along the underground cable alignment. The cable installation will also require the construction of temporary passing bays and the use of either Horizontal Directional Drilling (HDD) or open cut construction techniques for utility crossings of water, rail, gas and motorway.
- A new onshore electricity substation adjacent to the proposed connection point in the townland of Stickillin. The onshore substation will comprise of the following main elements:

  Compound 1 Onshore Transmission Connection comprising:
  - 220 kV Gas Insulated Switchgear (GIS) equipment contained within a building of approximately 20 m x 60 m and a height of 17 m.
  - 6 No. lightning protection poles of approximately 3 m in height located on the parapet of the GIS building.
  - A lattice steel telecommunications mast of 36 m in height.

- 5 No. associated car parking spaces, an internal access road 5 m in width and a house transformer.

Compound 2 Offshore Transmission System comprising:

- 220 kV Air Insulated Switchgear (AIS) equipment at an approximate height of 10 m, including a transformer bay, 2 No. harmonic filter bays, shunt reactor bay, 2 No. cable bays, 220 kV busbar, and ancillary control equipment.
- A control building of 34 m x 10 m and a height of 11 m with up to 6 No. lightning protection poles of approximately 3 m in height located on the parapet of the building.
- A statcom building of 14 m x 28 m and a height of 10 m with associated ancillary equipment.
- 12 No. lightning protection poles of approximately 20 m in height will be placed within the compound. It will include a lattice steel telecommunications mast of approximately 36 m in height, standby diesel generator and a house transformer.

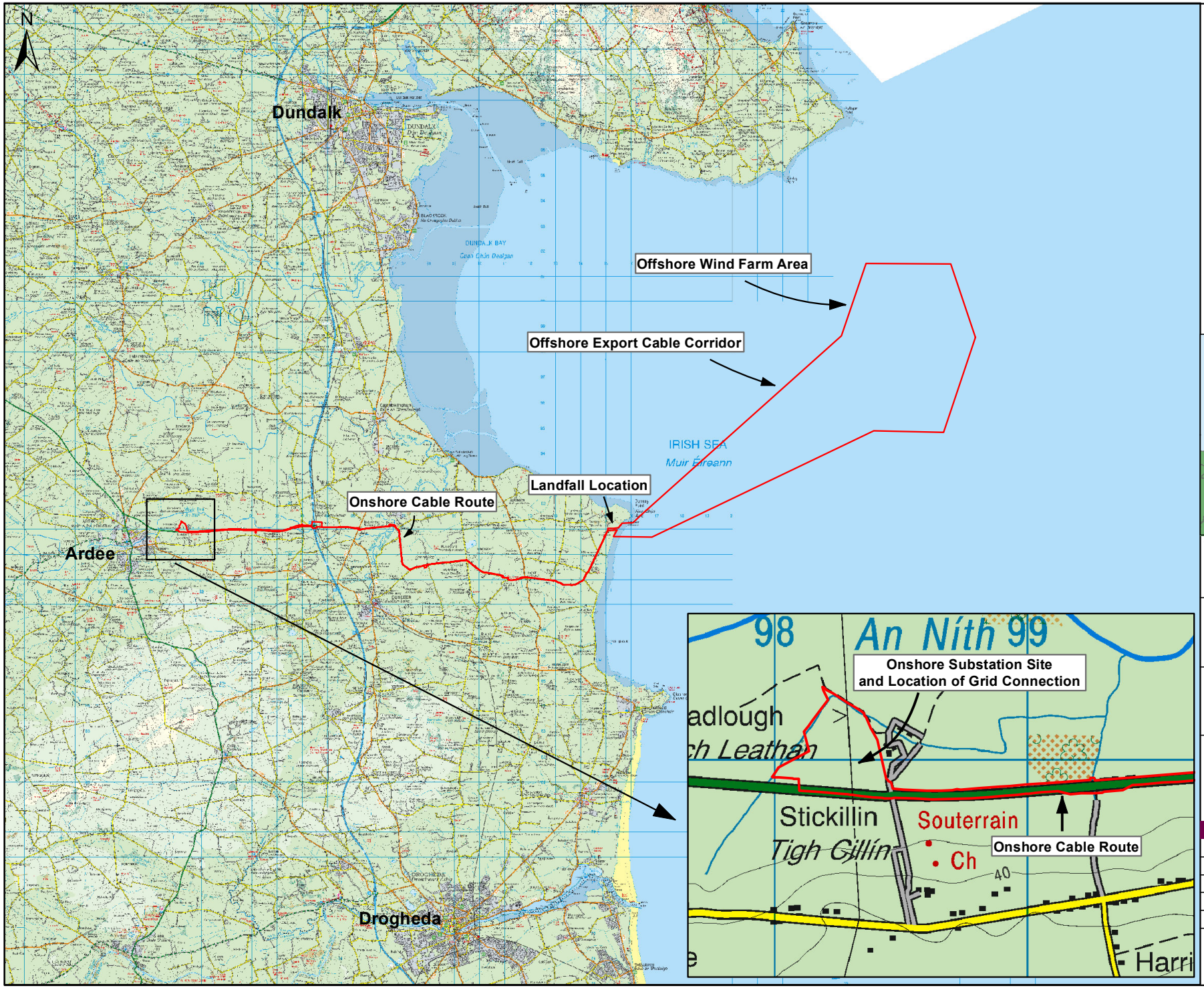
Entrance Compound providing access to Compound 1 and Compound 2 and including:

- A telecommunications building of 15 m x 4 m and a height of 4 m.
- A standby diesel generator and 1 no car parking space.

Common Areas:

- All compounds will be bounded by a 2.6 m high green palisade security fence / gates.
- The existing entrance will be widened to 6 m in width.
- 1.4 m high property fence / gates will surround the site.
- All associated landscaping.
- All other associated site development works such as surface water infrastructure and attenuation tanks to facilitate development.

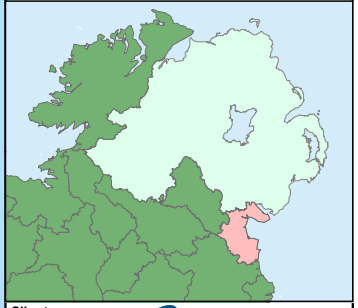
- 2 No. line cable interface masts of 27 m in height will be constructed adjacent to the onshore substation. This will require an existing 220 kV tower (31 m in height) and associated infrastructure to be decommissioned.
- A temporary construction compound adjacent to the onshore substation with a footprint of approximately 12,850 m2 including welfare and storage areas. 3 No. additional temporary construction compounds located along the onshore cable route varying in footprint from 3,000 m2 to 4,200 m2 and 8 No. temporary HDD compounds (4 off road HDD's) varying in footprint from 100 m2 to 4,500 m^2.
- All associated and ancillary above and below ground development including works comprising or relating to construction works, roadworks, excavation (including HDD) and vegetation clearance.



Legend

Planning Application Boundary

Data Sources: OWL, OSi.



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Figure 2-1:
Overview of Oriel Wind Farm Project

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Issue Details

Drawn By: NR	**Project No.** MDR1520b
Checked By: CC	**File Ref:** MDR1520bArc3072F02
Approved By: CC	
Scale: 1:200,000 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 12/01/2024	

3 METHODOLOGY

3.1 Appropriate Assessment guidance

Appropriate Assessment Guidelines for Planning Authorities have been published by the Department of the Environment, Heritage and Local Government (DoEHLG, 2010a) and more recently by the Office of the Planning Regulator (OPR) Practice Note (PN01) (OPR, 2021). 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 in relation to Natura 2000 sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021), which sets out the principles of how to approach decision making during the process of appropriate assessment.

The principal national and European guidelines have been followed in the preparation of this 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);
- 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);
- 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 (DoEHLG, 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 (DoEHLG, 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, 2011);
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service (NPWS), Dublin (NPWS, 2012a);
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013a);
- Guidelines on Climate Change and Natura 2000. European Commission (EC, 2013b);
- Guidance on EIS and NIS Preparation for Offshore Renewable Energy Projects. Department of Communications, Climate Action and Environment and Sustainable Energy Authority of Ireland (DCCAE and SEAI, 2017);
- European Commission Notice C (2018) 7621 '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, 2019);
- Institute of Air Quality Management 'A guide to the assessment of air quality impacts on designated nature conservation sites (Version 1.1)' (IAQM, 2020);

- European Commission Notice C (2020) 7730 'Guidance document on wind energy developments and EU nature legislation', Office for Official Publications of the European Communities, Luxembourg (EC, 2020);
- Office of the Planning Regulator Practice Note (PN01) 'Appropriate Assessment Screening for Development Management' (OPR, 2021);
- European Commission Notice Brussels C (2021) 6913 final 'Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021); and
- European Commission Guidance document on Assessment of plans and projects in relation to Natura 2000 sites - A summary, Office for Official Publications of the European Communities, Luxembourg (EC, 2022).

There is also significant case law in the field of appropriate assessment, comprising decisions and opinions from the Court of Justice of the European Union (CJEU), and also judgments from Irish and UK courts. This body of case law is reflected in the approach taken in the Stage 1 appraisal contained in this document.

3.2 Relevant European sites

The identification of relevant European sites to be included in this report was based on the identification of the Zone of Influence (ZoI) of the Project, a source-pathway-receptor model of effects, and the likely significance of any identified effects on any European site(s).

3.2.1 Zone of Influence

The proximity of the Project to European sites, and more importantly QIs/SCIs of those European sites, is of importance when identifying potential likely significant effects. A conservative approach has been used, which minimises the risk of overlooking distant or obscure effect pathways, while also avoiding reliance on buffer zones of a specified distance, within which all European sites should be considered.

This approach assesses an expansive list of all QIs/SCIs of European sites in Ireland and abroad (i.e., potential receptors), instead of listing European sites within buffer zones. This is in accordance with Irish guidance on AA:

> "*For projects, the distance could be much less than 15 km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects.*" (DoEHLG, 2010a; p.32)
>
> *"The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km).*" (OPR, 2021; p.8)

Following guidance set out in National Roads Authority (NRA) (2009), the Project has been evaluated based on an identified ZoI with regard to the potential impact pathways to an ecological feature (e.g., mobile and static). The ZoI of the Project on mobile species (e.g., birds, mammals, and fish), and static species and habitats (e.g., saltmarshes, woodlands, and flora) is considered differently. Mobile species have a 'range' extending beyond the European site in which they are QI/SCI. The range of mobile QI/SCI species varies considerably, from several metres (e.g., in the case of whorl snails *Vertigo* spp.), to hundreds of kilometres (in the case of migratory waterbirds). Whilst static species and habitats are generally considered to have ZoIs within close proximity of the Project, they can be significantly affected at considerable distances from an effect source; for example, where an aquatic QI habitat or plant is located many kilometres downstream from a potential pollution source.

The ZoI varies with each impact source and receptor interaction. All ZoIs are contained with the study areas for each discipline, described in the subsections below.

3.2.1.1 Terrestrial and freshwater

Hydrological linkages between the Project and European sites (and their QIs/SCIs) can occur over significant distances; however, any effect will be site specific depending on the receiving water environment and nature of the potential impact. As a precautionary measure, the pathway of effect for freshwater pollution from the Project is considered to be the surface water catchment. In this assessment, the surface water catchment is defined at the scale of Catchment Management Unit (CMU), as adopted in the second cycle River Basin Management Plan (RBMP) for Ireland 2018-2021 (Department of Housing, Local Government and Heritage (DoHLGH), 2018) and the draft third cycle (DoHLGH, 2022).

3.2.1.2 Marine processes

Marine processes (i.e., currents, waves, and sediment transport) are not receptors in themselves; however, they are potential pathways for impacts on other receptors. Numerical modelling techniques were used to describe tide, wave, and sediment transport regime. The Marine Processes Study Area is defined as one spring tidal excursion from the Project which results in a maximum tidal excursion of 3.5 km based on typical spring tidal conditions. The MIKE numerical modelling suite was used to define the extent on a typical tidal excursion[1]. A model simulation of neutrally buoyant particles were released across the modelled extent of the offshore wind farm area and offshore cable corridor and the excursion of these particles was examined over the course of a simulated spring tide cycle. The modelled extent of movement of neutrally buoyant particles over a typical spring tide cycle represents the maximum extent of possible effects based on typical tidal condition.

3.2.1.3 Benthic subtidal and intertidal ecology

The study area for benthic subtidal and intertidal ecology is up to one tidal excursion from the offshore wind farm area and offshore cable corridor. The outputs of the assessment on marine processes have indicated a maximum tidal excursion of 3.5 km from the offshore wind farm area and offshore cable corridor (i.e., the extent within which plume effects would be expected to occur). The Benthic Subtidal and Intertidal Ecology Study Area encompasses the offshore wind farm area, offshore cable corridor (including intertidal habitats up to the High Water Mark (HWM)) plus a buffer of 10 km. The 10 km buffer from the offshore wind farm area and offshore cable corridor contains representative habitats from the wider area, encompasses one tidal excursion and is therefore, considered to be precautionary because likely significant effects on benthic and inter-tidal ecology will not extend beyond one tidal excursion.

3.2.1.4 Offshore ornithology

Offshore ornithology for SPAs potentially affected by the Project, is defined by the foraging range of each individual species (taken from Woodward *et al.,* 2019). The maximum range used for the ZoI is up to 509.4 km for gannet, with any SPAs outside that range not considered further. The breeding, wintering and migratory behaviour of each species is accounted for when considering the potential to be affected by the Project.

3.2.1.5 Fish and shellfish

Fish and shellfish ecology encompasses two study areas due to the temporal and spatial variability of fish and shellfish.

The first (i.e., the Fish and Shellfish Ecology Study Area) includes the offshore wind farm area, the offshore cable corridor, and the area in the immediate vicinity of the intertidal area. This is the area where potential likely significant effects from the Project from the majority of impacts (e.g., subtidal habitat loss/disturbance, increases in suspended sediment concentrations (and associated sediment deposition) and electromagnetic fields (EMF) from subsea electrical cabling on fish and shellfish are expected to occur.

It is also necessary to define a second study area (the Western Irish Sea Fish and Shellfish Ecology Study Area) in the western portion of the Irish Sea from Ballyquintin Point (55.5 km northeast of the offshore wind

[1] A tidal excursion can be defined as: the net horizontal distance over which a water particle moves during one tidal cycle of flood and ebb (i.e the mixing of waters caused by daily tidal movements in and out of an estuary).

farm area) to Carnsore Point (191.5 km south of the wind farm area). This area is defined to assess the likely significant effects which may extend beyond the Project boundary (e.g., injury and/or disturbance to fish from underwater noise during pile-driving) and also to account for the highly mobile nature of some fish and shellfish species, in particular diadromous fish.

With respect to effects on Annex II species, the Western Irish Sea Fish and Shellfish Ecology Study Area is considered to be adequately precautionary to account for likely migratory routes for diadromous fish species to the relevant SACs considered (see migratory routes presented in ABPmer, 2014) and in particular potential disruption to migration to and from those SACs. Given the location of the Project within the western Irish Sea it is unlikely that any SACs located along the east Irish Sea coast would be affected by any of the predicted impacts; for example, diadromous fish access to SACs located on the west coast of Britain, will be unaffected by noise (or other activities) associated with the Project and the Project could not present a barrier to migration due to its location within the western Irish Sea.

3.2.1.6 Marine mammals

The Marine Mammal and Megafauna Study Area (hereafter referred to as the 'Marine Megafauna Study Area')): encompasses the offshore wind farm area and offshore cable corridor plus a minimum 4 km buffer (NatureScot, 2023; DCCAE, 2018), and is the area within which the site-specific marine mammal surveys were undertaken. This buffer was determined on the basis of the suitable area over which species specific marine mammal surveys should be carried out and was delineated by the offshore wind farm area.

The Regional Marine Mammal and Megafauna Study Area (hereafter referred to as the 'Regional Marine Megafauna Study Area') is defined by the wider Irish sea geographic area. Marine mammals are highly mobile and may range over large distances and therefore it was important to understand the ecology of marine mammals in this wider geographic context. This is important where the ZoI for a given impact (e.g., subsea noise) may extend beyond the Marine Megafauna Study Area (as described above). A desktop study (using existing data and literature) was also undertaken to describe marine mammal ecology, (e.g., in terms of their distribution, abundance, seasonality etc.) within this wider Irish Sea geographic area.

3.2.2 Source-pathway-receptor model

The likely effects of the Project on any European site have been assessed using a source-pathway-receptor model, where:

- A 'source' is defined as the individual element of the proposed works that has the potential to impact on a European site, its QIs/SCIs and its COs;
- A 'pathway' is defined as the means or route by which a source can affect the ecological receptor; and
- A 'receptor' is defined as the SCI of SPAs or QI of SACs for which COs have been set for the European sites being screened.

A source-pathway-receptor model is a standard tool used in environmental assessment. In order for an effect to be likely, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism results in no likelihood for the effect to occur. The source-pathway-receptor model was used to identify a list of European sites, and their QIs/SCIs, with potentially links to European site. These are termed as 'relevant' European sites/QIs/SCIs throughout this report.

3.2.3 Likely significant effect

The threshold for a Likely Significant Effect (LSE) is treated in the screening exercise as being above a de minimis level . The opinion of the Advocate General in CJEU case C-258/11 outlines:

"*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.*"

The threshold for an LSE 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 LSEs.

The Commission's 2018 Notice (EC, 2019) advises that the appropriate assessment procedure under Article 6(3) is triggered not by the certainty but by the likelihood of significant effects, arising from plans or projects regardless of their location inside or outside a protected site. Such likelihood exists if significant effects on the site cannot be excluded. The significance of effects should be determined in relation to the specific features and environmental conditions of the site concerned by the plan or project, taking particular account of the site's COs and ecological characteristics.

The analysis involved in a Stage 1 screening appraisal for Appropriate Assessment is described in EC (2021) as comprising four steps:

- ascertaining whether the plan or project is directly connected with or necessary to the management of a Natura 2000 site;
- identifying the relevant elements of the plan or project and their likely impacts;
- identifying which (if any) Natura 2000 sites may be affected, considering the potential effects of the plan or project alone or in combination with other plans or projects; and
- assessing whether likely significant effects on the Natura 2000 site can be ruled out, in view of the site's COs.

Case law of the CJEU 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 COs; and
- a significant effect cannot be excluded on the basis of objective information.

EC (2021) defines an LSE as being "*any effect that may reasonably be predicted as a consequence of a plan or project that would negatively and significantly affect the conservation objectives established for the habitats and species significantly present on the Natura 2000 site. This can result from either on-site or off-site activities, or through combinations with other plans or projects*".

In this report, therefore, 'relevant' European sites are those within the potential ZoI of activities associated with the construction and operation of the Project, where LSE pathways to European sites were identified through the source-pathway-receptor model.

3.2.4 Consideration of *ex-situ* effects

EC (2019) advises that Member States, both in their legislation and in their practice, allow for the Article 6(3) safeguards to be applied to any development pressures, including those which are external to European sites, but which are likely to have significant effects on any of them.

The CJEU developed this point when it issued a ruling in case C-461/17 ("Brian Holohan and Others v An Bord Pleanála") that determined *inter alia* that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that an appropriate assessment must on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the COs of the site.

In that regard, consideration has been given in this appraisal of implications for habitats and species located both inside and outside of the European sites considered and with reference to those sites' COs where effects upon those habitats and/or species are liable to affect the COs of the sites concerned.

3.2.5 Conservation objectives

The COs for each European site are to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the site has been selected.

The favourable conservation status of a habitat is achieved when:

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

The favourable conservation status (or condition, at a site level) of a species is achieved when:

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

The CJEU, in its judgment in Case C-849/19, Commission v Greece, confirmed that COs must be formally established and that these must be site specific, refer to the specific values present in the site, and be precise. Furthermore, the Court has repeatedly held that it is in the light of the COs that the scope of the obligation to carry out an appropriate assessment of the effects of a plan or a project on a protected site should be determined. In other words, the decision as to whether the plan or project is likely to have significant impact on a Natura 2000 site should be taken in view of the site's COs. It is therefore essential that site specific COs are set without delay for all Natura 2000 sites and that these are made publicly available.

EC (2021) advises that site specific COs must be set for all protected habitats and species that are significantly present on the site (i.e., habitats and species with A, B or C, but not D, site assessment in the Natura 2000 Standard Data Form for the site). The COs must specify targets to be achieved for each of the attributes or parameters that determine the conservation condition of the protected features.

The COs of European sites published by the NPWS in Ireland note that an appropriate assessment based on the most up to date COs (which are defined by a list of attributes and targets) will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out (e.g., COs for Rockabill to Dalkey Island SAC 003000, version 1 (NPWS, 2013a)).

The most up-to-date COs for the European sites being considered have been used in this appraisal, and they are set out in full in section 4: Stage 1 Screening Appraisal. Details in relation to the QIs of SACs and SCIs of SPAs is based on publicly available data sourced from the relevant Statutory Nature Conservation Bodies (SNCBs) in Ireland and the UK in January 2024.

3.2.6 In-combination effects

Article 6(3) of the Habitats Directive requires that in-combination effects with other plans or projects are also considered. As set out in EC (2019), significance will vary depending on factors such as magnitude of impact, type, extent, duration, intensity, timing, probability, cumulative effects and the vulnerability of the habitats and species concerned.

EC (2020) notes that cumulative environmental effects can be defined as effects on the environment caused by the combined action of past, current and future activities while EC (2019) makes clear that the phrase 'in combination with other plans or projects' in Article 3(3) refers to cumulative effects caused by the projects or plans that are currently under consideration together with the effects of any existing or proposed projects or plans. Although the effects of one development may not be significant, the combined effects of several developments together can be significant.

EC (2020) also notes that the 'in combination' provision applies to plans or projects that are completed, approved but uncompleted, or proposed. In addition to the effects of the plans or projects that are the main subject of the assessment, it may be appropriate to consider the effects of already completed plans and projects. Although already completed plans and projects are themselves excluded from the assessment requirements of Article 6(3), it is still important to take them into consideration when assessing the effects of the current plan or project in order to determine whether there are any potential cumulative effects arising from the current project in combination with other completed plans and projects. The effect of completed plans and projects would typically form part of the site's baseline conditions at this stage. Plans and projects that have been approved in the past but have not yet been implemented or completed should be included in the in-combination provision. As regards other proposed plans or projects, on grounds of legal certainty it would seem appropriate to restrict the 'in combination' provision to plans that have been proposed (i.e., for which an application for approval or consent has been submitted).

This mirrors the advice contained in EC (2019) which advises that other plans or projects which are completed, approved but uncompleted, or proposed should be considered. EC (2019) specifically advises that "*as regards other proposed plans or projects (i.e., other projects not proposed by the Applicant), on grounds of legal certainty it would seem appropriate to restrict the in-combination provision to those which have been actually proposed, i.e. for which an application for approval or consent has been introduced"*.

EC (2021) additionally advises that:

- an in-combination assessment is often less detailed at the screening stage than in the appropriate assessment;
- there is still a need to identify all other plans or projects that could give rise to cumulative impacts with the plan or project in question; and
- if this analysis cannot reach definitive conclusions, it should at least identify any other relevant plans and projects that should be scrutinised in more detail during the appropriate assessment.

The ability for impacts arising from the Project to overlap with those from other projects, plans and activities to result in adverse effects has been assessed on a receptor basis for each group of QIs and SCIs. This means that, in most examples, an overlap of the physical extents of the impacts arising from the two (or more) projects, plans or activities must be established for an in-combination effect to arise. For example, for a cumulative sedimentation effect to be established between the Project and another project, it must be established that the extent of sediment release from both projects has the potential to overlap and may affect a receptor at the same location.

Exceptions to this exist for certain mobile receptors that may move between, and be subject to, two or more separate physical extents of impact from two or more projects. For example, marine mammals may be affected by noise impacts from the Project, as well as those from other projects where the extent of another ensonified area does not directly overlap with that of the Project. Furthermore, individual receptors from the same population may be exposed to separate impacts from different projects occurring at the same time while the population is separated, leading to an effect upon the population as a whole.

Where relevant, these potential eventualities have been taken into consideration in the in-combination assessment and mitigation proposed as necessary to prevent adverse in-combination effects occurring.

4 STAGE 1 SCREENING APPRAISAL TO INFORM SCREENING FOR APPROPRIATE ASSESSMENT

4.1 Management of European sites

AA Screening is not required where the project is connected with, or necessary to the management of any European site. In this case, the Project is not directly connected with or necessary to the management of any European site(s). As such, must be subject to the assessment procedure under Article 6 of the Habitats Directive.

4.2 Summary of information required

The screening assessment for AA follows the methodologies set out in section 3, and analysis of the following information:

- ZoI of effects from the Project; and
- Distribution of QIs and SCIs in relation to the ZoI.

As described in the methodology (section 3.2.2), the assessment to inform AA Screening adopts a comprehensive and precautionary approach for which the starting point is a complete list of all QIs/SCIs of European sites in Ireland and relevant sites abroad.

4.3 European sites

The onshore elements of the Project footprint, temporary land take, and permanent land take do not overlap or adjoin any European sites. However, the offshore elements of the Project intersect one European site, namely the North-west Irish Sea SPA for approximately 2 km of the offshore cable corridor. The next closest European sites are Dundalk Bay SPA and Carlingford Lough SPA, located 0.3 km west of the offshore cable corridor and 5.7 km north of the offshore wind farm area, respectively.

All European sites within the ZoIs outlined in section 3.2.1 are listed in Table 4-1 and illustrated in Figure 4-1.

Table 4-1: Conservation Objectives for European Sites referenced in this report.

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Republic of Ireland			
North-west Irish Sea SPA (IE004236) Version 1, dated 19 September 2023 (NPWS, 2023a)	Intersects the Project offshore cable corridor	Red-throated Diver (*Gavia stellata*) [A001] Great Northern Diver (*Gavia immer*) [A003] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Common Scoter (*Melanitta nigra*) [A065] Little Gull (*Larus minutus*) [A177] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (Larus argentatus) [A184] Great Black-backed Gull (*Larus marinus*) [A187] Kittiwake (*Rissa tridactyla*) [A188] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda)* [A200] Puffin (*Fratercula arctica*) [A204]	To maintain or restore the favourable conservation condition.
Dundalk Bay SPA (IE0004026); Version 1, dated 19 July 2011 (NPWS, 2011a).	10.1/0.7/8.0	Great Crested Grebe (*Podiceps cristatus*) [A005] Greylag Goose (*Anser anser*) [A043] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Mallard (*Anas platyrhynchos*) [A053] Pintail (*Anas acuta*) [A054] Common Scoter (*Melanitta nigra*) [A065] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Herring Gull (*Larus argentatus*) [A184] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition.

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Dundalk Bay SAC (IE0000455); Version 1, dated 19 July 2011 (NPWS, 2011a).	10.1/3.3/9.3	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimae) [1410]	To maintain or restore the favourable conservation condition.
Codling Fault Zone SAC (IE003015); Version 1, dated 15 June 2023 (NPWS, 2023b)	78.1/65.8/63	Harbour porpoise (*Phocoena phocoena*) [1351]	In the absence of conservation objectives for harbour porpoise of Codling Fault Zone SAC, the overall aim of the Habitats Directive has been included, which is: To maintain or restore the species to favourable conservation status.
Blackwater Bank SAC (IE002953); Version 2, dated 14 March 2023 (NPWS, 2023c)	149.3/145.3/151	Harbour porpoise (*Phocoena phocoena*) [1351]	In the absence of conservation objectives for harbour porpoise of Blackwater Bank SAC, the overall aim of the Habitats Directive has been included, which is: To maintain or restore the species to favourable conservation status.
Stabannan-Braganstown SPA (IE0004091); Version 6 (Generic), dated 23 March 2021 (NPWS, 2021a).	3.1/1.8/21.9	Greylag Goose (*Anser anser*) [A043]	To maintain or restore the favourable conservation condition
Clogher Head SAC (IE001459); Version 1, dated 27 January 2017 (NPWS, 2017)	19.5/5.3/13.1	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	To maintain the favourable conservation condition.
Carlingford Shore SAC (IE002306); Version 1, dated 15 July 2013 (NPWS, 2013b)	26.3/14.8/4.4	Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220]	To maintain the favourable conservation condition.
Slaney River Valley SAC [IE000781]; Version 1, dated 21 October 2011 (NPWS, 2011b)	94.4/93.4/102.1	Sea Lamprey (*Petromyzon marinus)* [1095] River Lamprey (*Lampetra fluviatilis)* [1099] Twaite Shad (*Alosa fallax fallax)* [1103] Atlantic Salmon (*Salmo salar)* [1106] Brook Lamprey (*Lampetra planeri*) [1096] Otter (*Lutra lutra*) [1355] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]	To restore the favourable conservation condition

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
		Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Harbour Seal (*Phoca vitulina*) [1365] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* Vegetation [3260]	To maintain the favourable conservation condition.
		Freshwater Pearl Mussel (*Margaritifera margaritifera)* [1029]	The status of the freshwater pearl mussel (*Margaritifera margaritifera*) as a qualifying Annex II species for the Slaney River Valley SAC is currently under review. The outcome of this review will determine whether a site-specific conservation objective is set for this species
River Boyne And River Blackwater SAC (IE002299]; Version 8.0 (Generic), dated 23 March 2021 (NPWS, 2021b)	14.6/12.3/23.4	River Lamprey (*Lampetra fluviatilis)* [1099] Atlantic Salmon (*Salmo salar)* [1106]	To maintain or restore the favourable conservation condition
Carlingford Lough SPA (IE004078); Version 1, dated 22 August 2013 (NPWS, 2013c)	29.4/18.4/5.7	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition.
Carlingford Mountain SAC (IE000453); Version 6 (Generic), dated 21 February 2018 (NPWS, 2018)	22.9/17.3/9.9	Northern Atlantic wet heaths with *Erica tetralix* [4010] European dry heaths [4030] Alpine and Boreal heaths [4060] Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] Transition mires and quaking bogs [7140] Alkaline fens [7230] Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] Calcareous rocky slopes with chasmophytic vegetation [8210] Siliceous rocky slopes with chasmophytic vegetation [8220] Blanket bogs [7130]	To maintain the favourable conservation condition.
Boyne Coast and Estuary SAC (IE001957); Version 1, dated 31 October 2012 (NPWS, 2012b)	20.0/8.6/17.3	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 (*Glauco-Puccinellietalia maritimae*) [1330]	To maintain or restore the favourable conservation condition.

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
		Mediterranean salt meadows (*Juncetalia Maritime*) [1410]	The status of Mediterranean salt meadows (*Juncetalia maritimi*) as a qualifying Annex I habitat for Boyne Coast and Estuary SAC is currently under review. The outcome of this review will determine whether a site-specific conservation objective is set for this habitat. However, in the absence of available site-specific conservation objectives (SSCOs) for Mediterranean salt meadows *(Juncetalia maritimae*) [1410] of the Boyne Coast and Estuary SAC (IE001957), the next closest European site along the east coast designated for this habitat type present under similar environmental conditions, has been used as a proxy. In this case, the next closest European site from which substitute SSCOs can be obtained is Dundalk Bay SAC (IE000455), located c. 13.6 km north of the Boyne Coast and Estuary SAC.
		Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] *	To restore the favourable conservation condition.
Rockabill to Dalkey Island SAC (IE003000); Version 1, dated 7 May 2013 (NPWS, 2013a)	39.9/28.4/30.6	Harbour porpoise (*Phocoena phocoena*) [1351] Reefs [1170]	To maintain the favourable conservation condition.
Lambay Island SAC [000204]; Version 1, dated 22 July 2013 (NPWS, 2013d)	50.9/40.9/43.1	Grey Seal (*Halichoerus grypus*) [1364] Harbour Seal (*Phoca vitulina*) [1365] Harbour porpoise (*Phocoena phocoena*) [1351] Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	To maintain the favourable conservation condition. In the absence of conservation objectives for harbour porpoise of Lambay Island SAC, the overall aim of the Habitats Directive has been included, which is: To maintain or restore the species to favourable conservation status.

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Boyne Estuary SPA (IE004080); Version 1, dated 26 February 2013 (NPWS, 2013e)	19.6/10.2/18.5	Shelduck (*Tadorna tadorna)* [A048] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Black-tailed Godwit (*Limosa limosa*) [A156] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Little Tern (*Sterna albifrons*) [A195] (breeding) Wetlands [A999]	To maintain the favourable conservation condition.
River Nanny Estuary and Shore SPA (IE004158); Version 1, dated 21 September 2012 (NPWS, 2012c)	25.6/16.6/24.2	Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Herring Gull (*Larus argentatus*) [A184] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition.
Rockabill SPA (IE004014); Version 1, dated 8 May 2013 (NPWS, 2013f)	38.9/26.9/28.5	Roseate Tern (*Sterna dougallii*) [A192] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Arctic Tern (*Sterna paradisaea*) [A194] (breeding) Purple Sandpiper (*Calidris maritima*) [A148]	To maintain the favourable conservation condition.
Skerries Island SPA [IE004122]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021c)	40.6/30.1/33.1	Herring gull (*Larus argentatus*) [A184] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Light-bellied brent goose (*Branta bernicla hrota*) [A046] Purple Sandpiper (*Calidris maritima*) [A148] Turnstone (*Arenaria interpres*) [A169]	To maintain or restore the favourable conservation condition
Lambay Island SPA [IE004069]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021d)	50.5/40.4/42.7	Fulmar (*Fulmarus glacialis*) [A009] Cormorant (*Phalacrocorax carbo)* [A017] Shag (*Phalacrocorax aristotelis*) [A018] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184] Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204] Greylag Goose (*Anser answer*) [A043]	To maintain or restore the favourable conservation condition
Howth Head Coast SPA [IE004113]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021e)	59.9/51.6/55.2	Kittiwake (*Rissa tridactyla*) [A188]	To maintain or restore the favourable conservation condition
Ireland's Eye SPA [IE004117]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021f)	57.3/48.9/52,7	Cormorant (*Phalacrocorax carbo*) [A017] Herring Gull (*Larus argentatus*) [A184] Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200]	To maintain or restore the favourable conservation condition

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Wicklow Head SPA [IE004127]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021g)	103.2/97.0/101.2	Kittiwake (*Rissa tridactyla*) [A188]	To maintain or restore the favourable conservation condition
Saltee Islands SPA [IE004002]; Version 1, dated 21 October 2011 (NPWS, 2011c)	190.3/188.9/196.3	Fulmar (*Fulmarus glacialis*) [A009] (breeding) Gannet (*Morus bassanus*) [A016] (breeding) Shag (*Phalacrocorax aristotelis*) [A018] (breeding) Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Razorbill (*Alca torda*) [A200] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding)	To maintain the favourable conservation condition
Saltee Islands SAC [IE000707]; Version 1, dated 21 October 2011 (NPWS, 2011c)	185.9/184.2/190.3	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] Grey Seal (*Halichoerus grypus)* [1364] Submerged or partially submerged sea caves [8330]	To maintain the favourable conservation condition
Seas off Wexford SPA [IE004237] Version 1, dated 9 January 2024 (NPWS, 2024)	144.1/145.9/145.0	Red-throated Diver (*Gavia stellata*) [A001] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Gannet (*Morus bassanus*) [A016] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Common Scoter (*Melanitta nigra*) [A065] Mediterranean Gull (*Larus melanocephalus*) [A176] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184] Kittiwake (*Rissa tridactyla*) [A188] Sandwich Tern (*Sterna sandvicensis*) [A191] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204]	To maintain or restore the favourable conservation condition of
Horn Head to Fanad Head SPA [IE004194]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021h)	161.9/162.4/167.1	Fulmar (*Fulmarus glacialis*) [A009] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Kittiwake (*Rissa tridactyl*a) [A188] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Barnacle Goose (*Branta leucopsis*) [A045] Peregrine (*Falco peregrinus*) [A103] Chough (*Pyrrhocorax pyrrhocorax*) [A346] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	To maintain or restore the favourable conservation condition

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Helvick Head to Ballyquin SPA [IE004192]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021i)	211.7/211.7/225.4	Cormorant (*Phalacrocorax carbo*) [A017] Herring Gull (*Larus argentatus*) [A184] Kittiwake (*Rissa tridactyla*) [A188] Peregrine (*Falco peregrinus*) [A103] Chough (*Pyrrhocorax pyrrhocorax*) [A346]	To maintain or restore the favourable conservation condition
Tory Island SPA [IE004073]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021j)	189.1/189.6/198.6	Fulmar (*Fulmarus glacialis*) [A009] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204] Corncrake (*Crex crex*) [A122]	To maintain or restore the favourable conservation condition
West Donegal Coast SPA [IE004150]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021k)	158.7/159.0/177.9	Fulmar (*Fulmarus glacialis*) [A009] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Herring Gull (*Larus argentatus*) [A184] Kittiwake (*Rissa tridactyla*) [A188] Razorbill (*Alca torda*) [A200] Peregrine (*Falco peregrinus*) [A103] Chough (*Pyrrhocorax pyrrhocorax*) [A346]	To maintain or restore the favourable conservation condition
Beara Peninsula SPA [IE004155]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021l)	332.4/332.6/354.6	Fulmar (*Fulmarus glacialis*) [A009] Chough (*Pyrrhocorax pyrrhocorax*) [A346]	To maintain or restore the favourable conservation condition
The Bull and The Cow Rocks SPA [IE004066]; 8 (Generic), dated 23 March 2021 (NPWS, 2021m)	357.7/357.9/380.5	Gannet (*Morus bassanus*) [A016] Puffin (*Fratercula arctica*) [A204] Storm Petrel (*Hydrobates pelagicus*) [A014]	To maintain or restore the favourable conservation condition
Duvillaun Islands SPA [IE004111]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021n)	238.2/238.6/263.7	Fulmar (*Fulmarus glacialis*) [A009] Storm Petrel (*Hydrobates pelagicus*) [A014] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Deenish Island and Scariff Island SPA [IE004175]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021o)	342.6/342.8/365.8	Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Storm Petrel (*Hydrobates pelagicus*) [A014] Lesser Black-backed Gull (*Larus fuscus*) [A183] Arctic Tern (*Sterna paradisaea*) [A194]	To maintain or restore the favourable conservation condition
Iveragh Peninsula SPA [IE004154]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021p)	308.0/308.3/331.9	Fulmar (*Fulmarus glacialis*) [A009] Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199] Peregrine (*Falco peregrinus*) [A103] Chough (*Pyrrhocorax pyrrhocorax*) [A346]	To maintain or restore the favourable conservation condition
Skelligs SPA [IE004007]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021q)	354.1/354.4/378.0	Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Storm Petrel (*Hydrobates pelagicus*) [A014] Gannet (*Morus bassanus*) [A016] Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199] Puffin (*Fratercula arctica*) [A204]	To maintain or restore the favourable conservation condition
South Dublin Bay and Tolka Estuary SPA [IE004024]; Version 1, dated 9 March 2015 (NPWS, 2015a)	58.3/52.8/59.0	Roseate Tern (*Sterna dougallii*) [A192] (post-breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Arctic Tern (*Sterna paradisaea*) [A194] (post-breeding) Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	To maintain the favourable conservation condition

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Dalkey Islands SPA [IE004172]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021r)	69.9/63.0/67.6	Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	To maintain or restore the favourable conservation condition
The Murrough SPA [IE004186]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021s)	89.2/82.7/86.9	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Herring Gull (*Larus argentatus*) [A184] Little Tern (*Sterna albifrons*) [A195] Red-throated Diver (*Gavia stellata*) [A001] Greylag Goose (*Anser anser*) [A043] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	To maintain or restore the favourable conservation condition
The Raven SPA [IE004019]; Version 1, dated 21 March 2012 (NPWS, 2012d)	159.4/156.5/162.9	Red-throated Diver (*Gavia stellata)* [A001] Cormorant (*Phalacrocorax carbo*) [A017] Common Scoter (*Melanitta nigra*) [A065] Grey Plover (*Pluvialis squatarola*) [A141] Sanderling (*Calidris alba*) [A144] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Wexford Harbour and Slobs SPA [IE004076]; Version 1, dated 21 March 2012 (NPWS, 2012e)	152.1/150.8/158.6	Cormorant *(Phalacrocorax carbo*) [A017] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Red-breasted Merganser (*Mergus serrator*) [A069] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Lesser Black-backed Gull (*Larus fuscus*) [A183] Little Tern (*Sterna albifrons*) [A195] Little Grebe (*Tachybaptus ruficollis*) [A004] Great Crested Grebe (*Podiceps cristatus*) [A005] Grey Heron (*Ardea cinerea*) [A028] Bewick's Swan (*Cygnus columbianus bewickii*) [A037] Whooper Swan (*Cygnus cygnus*) [A038] Shelduck (*Tadorna tadorna*) [A048] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Mallard (*Anas platyrhynchos*) [A053] Pintail (*Anas acuta*) [A054] Scaup (*Aythya marila*) [A062] Goldeneye (*Bucephala clangula*) [A067] Hen Harrier (*Circus cyaneus*) [A082] (post-breeding/roost) Coot (*Fulica atra*) [A125] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition
Keeragh Islands SPA [IE004118]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021t)	184.8/184.0/192.4	Cormorant (*Phalacrocorax carbo*) [A017]	To maintain or restore the favourable conservation condition
Inishtrahull SPA [IE004100], Version 8 (Generic), dated 23 March 2021 (NPWS, 2021u)	180.0/180.5/179.9	Shag (*Phalacrocorax aristotelis*) [A018] Common Gull (*Larus canus*) [A182] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Mid-Waterford Coast SPA [IE004193]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021v)	195.9/195.9/207.2	Cormorant (*Phalacrocorax carbo*) [A017] Herring Gull (*Larus argentatus*) [A184]	To maintain or restore the favourable conservation condition

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Lough Swilly SPA [IE004075]; Version 1, dated 19 July 2011 (NPWS, 2011d)	141.8/142.2/148.3	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] (breeding) Common Gull (*Larus canus*) [A182] Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Red-breasted Merganser (*Mergus serrator*) [A069] Great Crested Grebe (*Podiceps cristatus*) [A005] Grey Heron (*Ardea cinerea*) [A028] Whooper Swan (*Cygnus cygnus*) [A038] Greylag Goose (*Anser anser*) [A043] Shelduck (*Tadorna tadorna*) [A048] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Mallard (*Anas platyrhynchos*) [A053] Shoveler (*Anas clypeata*) [A056] Scaup (*Aythya marila*) [A062] Goldeneye (*Bucephala clangula*) [A067] Coot (*Fulica atra*) [A125] Oystercatcher (*Haematopus ostralegus*) [A130] Knot (*Calidris canutus*) [A143] Dunlin (*Calidris alpina*) [A149] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Greenshank (*Tringa nebularia*) [A164]] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition
Greers Isle SPA [IE004082]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021w)	169.1/169.5/175.2	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Sandwich Tern (*Sterna sandvicensis*) [A191]	To maintain or restore the favourable conservation condition
Ballymacoda Bay SPA [IE004023]; Version 1, dated 19 February 2015 (NPWS, 2015b)	234.0/234.1/249.3	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition

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Inishbofin, Inishdooey and Inishbeg SPA [IE004083]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021x)	180.4/180.9/190.6	Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Arctic Tern (*Sterna paradisaea*) [A194] Barnacle Goose (*Branta leucopsis*) [A045] Corncrake (*Crex crex*) [A122]	To maintain or restore the favourable conservation condition
West Donegal Islands SPA [IE004230]: Version 8 (Generic), dated 23 March 2021 (NPWS, 2021y)	180.4/180.8/192.9	Shag (*Phalacrocorax aristotelis*) [A018] Common Gull (*Larus canus*) [A182] Herring Gull (*Larus argentatus*) [A184] Barnacle Goose (*Branta leucopsis*) [A045] Corncrake (*Crex crex*) [A122]	To maintain or restore the favourable conservation condition
Illancrone and Inishkeeragh SPA [IE004132]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021z)	174.8/175.2/189.6	Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Roaninish SPA [IE004121]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a1)	172.3/172.7/188.1	Herring Gull (*Larus argentatus*) [A184] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Sovereign Islands SPA [IE004124]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a2)	275.6/275.7/292.9	Cormorant (*Phalacrocorax carbo*) [A017]	To maintain or restore the favourable conservation condition
Old Head of Kinsale SPA [IE004021]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a3)	284.5/284.6/301.9	Kittiwake (*Rissa tridactyla*) [A188] Guillemot (*Uria aalge*) [A199]	To maintain or restore the favourable conservation condition
Inishduff SPA [IE004115]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a4)	155.7/156.1/175.1	Shag (*Phalacrocorax aristotelis*) [A018]	To maintain or restore the favourable conservation condition
Inishmurray SPA [IE004068]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a5)	153.1/153.4/174.8	Shag (*Phalacrocorax aristotelis*) [A018] Herring Gull (*Larus argentatus*) [A184] Arctic Tern (*Sterna paradisaea*) [A194] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Ardboline Island and Horse Island SPA [IE004135]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a6)	151.1/151.5/173.9	Cormorant (*Phalacrocorax carbo*) [A017] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Aughris Head SPA [IE004133]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a7)	154.8/155.2/178.3	Kittiwake (*Rissa tridactyla*) [A188]	To maintain or restore the favourable conservation condition
Blacksod Bay/Broad Haven SPA [IE004037]; Version 1, dated 16 December 2014 (NPWS, 2014a)	215.6/215.6/239.7	Great Northern Diver (*Gavia immer*) [A003] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Common Scoter (*Melanitta nigra*) [A065] Red-breasted Merganser (*Mergus serrator*) [A069] Ringed Plover (*Charadrius hiaticula*) [A137] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] (breeding) Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding) Wetland and Waterbirds [A999]	To maintain or restore the favourable conservation condition

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Inishglora and Inishkeeragh SPA [IE004084]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a8)	239.2/239.6/264.1	Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184] Arctic Tern (*Sterna paradisaea*) [A194] Storm Petrel (*Hydrobates pelagicus*) [A014] Barnacle Goose (*Branta leucopsis*) [A045]	To maintain or restore the favourable conservation condition
Inishkea Islands SPA [IE004004]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a9)	241.2/241.6/266.5	Shag (*Phalacrocorax aristotelis*) [A018] Common Gull (*Larus canus*) [A182] Herring Gull (*Larus argentatus*) [A184] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Barnacle Goose (*Branta leucopsis*) [A045] Ringed Plover (*Charadrius hiaticula*) [A137] Sanderling (*Calidris alba*) [A144] Purple Sandpiper (*Calidris maritima*) [A148] Turnstone (*Arenaria interpres*) [A169] Dunlin (*Calidris alpina schinzii*) [A466]	To maintain or restore the favourable conservation condition
Lady's Island Lake SPA [IE004009]; Version 8 (Generic), dated 23 March 2021 (NPWS, 2021a10)	182.8/180.3/186.9	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Sandwich Tern (*Sterna sandvicensis*) [A191] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Gadwall (*Anas strepera*) [A051]	To maintain or restore the favourable conservation condition
Lough Foyle SPA [IE004087]; Version 1, dated 19 February 2014 (NPWS, 2014b)	142.3/142.7/145.1	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Red-throated Diver (*Gavia stellata*) [A001] Great Crested Grebe (*Podiceps cristatus*) [A005] Bewick's Swan (*Cygnus columbianus bewickii*) [A037] Whooper Swan (*Cygnus cygnus*) [A038] Greylag Goose (*Anser anser*) [A043] Shelduck (*Tadorna tadorna*) [A048] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Mallard (*Anas platyrhynchos*) [A053] Eider (*Somateria mollissima*) [A063] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Herring Gull (*Larus argentatus*) [A184] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition
United Kingdom (Great Britain and Northern Ireland)			

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Carlingford Lough SPA (UK9020161); Version 3, dated 1 April 2015 (Department of the Environment Northern Ireland (DoENI), 2015a)	31.6/20.6/7.4	Common Tern (*Sterna hirundo*) [A193] (breeding) Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding) Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	To maintain each feature in favourable condition
Strangford Lough SPA [UK9020111]; Version 4, dated 1 April 2015 (DoENI, 2015b)	75.0/64.8/49.4	Common Tern (*Sterna hirundo*) [A193] (breeding) Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding) Arctic Tern (*Sterna paradisaea*) [A194] (breeding)	To maintain each feature in favourable condition
Irish Sea Front SPA [UK9020328]; Version 5, dated July 2016 (Joint Nature Conservation Committee (JNCC), 2016a)	86.4/69.5/56.9	Manx Shearwater (*Puffinus puffinus*) [A013] (breeding)	To avoid significant deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, subject to natural change, thus ensuring that the integrity of the site is maintained in the long term and makes an appropriate contribution to achieving the aims of the Birds Directive for each of the qualifying species.
Copeland Islands SPA [UK9020291]; Version 2, dated 1 April 2015 (DoENI, 2015c)	109.8/101.5/86.8	Manx Shearwater (*Puffinus puffinus*) [A013] (breeding) Arctic Tern (*Sterna paradisaea*) [A194] (breeding)	To maintain each feature in favourable condition
Rathlin Island SPA [UK9020011]; Version 3, dated 1 April 2015 (DoENI, 2015d)	156.2/155.7/145.4	Peregrine Falcon (*Falco peregrinus*) [A708] (breeding) Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Razorbill (*Alca torda*) [A200] (breeding) Fulmar (*Fulmarus glacialis*) [A009] (breeding) Common Gull (*Larus canus*) [A182] (breeding) Lesser Black-backed Gull (*Larus fuscus*) [A183] (breeding) Herring Gull (*Larus argentatus*) [A184] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding)	To maintain each feature in favourable condition
Outer Ards SPA [UK9020271]; Version 4, dated 1 April 2015 (DoENI, 2015e)	84.6/72.5/56.1	Arctic Tern (*Sterna paradisaea*) [A194] (breeding) Golden Plover (*Pluvialis apricaria*) [A140] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Ringed Plover (*Charadrius hiaticula*) [A137] Turnstone *Arenaria interpres* [A169]	To maintain each feature in favourable condition
Larne Lough SPA [UK9020221]; Version 4, dated 1 April 2015 (DoENI, 2015f)	113.3/107.3/94.0	Roseate Tern (*Sterna dougallii*) [A192] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding) Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	To maintain each feature in favourable condition

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Sheep Island SPA [UK9020021]; Version 3, dated 1 April 2015 (DoENI, 2015g)	154.5/154.5/145.6	Cormorant (*Phalacrocorax carbo*) [A017] (breeding)	To maintain each feature in favourable condition
Lough Foyle SPA [UK9020031]; Version 4, dated 1 April 2015 (DoENI, 2015h)	136.7/137.2/137.4	Bewick's Swan (*Cygnus columbianus bewickii*) [A037] Whooper Swan (*Cygnus cygnus*) [A038] Golden Plover (*Pluvialis apricaria*) [A140] Bar-tailed Godwit (*Limosa lapponica*) [A157] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Great Crested Grebe (*Podiceps cristatus*) [A005] Cormorant (*Phalacrocorax carbo*) [A017] Greylag Goose (*Anser anser*) [A043] Shelduck (*Tadorna tadorna*) [A048] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Mallard (*Anas platyrhynchos*) [A053] Eider (*Somateria mollissima*) [A063] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] Dunlin (*Calidris alpina*) [A149] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162]	To maintain each feature in favourable condition
Glannau Aberdaron ac Ynys Enlli SPA [UK9013121]; Version 2, dated 27 March 2008 (JNCC, 2008)	156.5/144.2/139.6	Manx Shearwater (*Puffinus puffinus*) [A013] (breeding) Chough (*Pyrrhocorax pyrrhocorax*) [A346] (breeding)	To maintain or restore or favourable conservation condition
Skomer, Skokholm and the Seas off Pembrokeshire SPA [UK9014051]; December 2015 (Natural Resources Wales (NRW) and JNCC, 2015)	243.9/236.9/238.9	Manx Shearwater (*Puffinus puffinus*) [A013] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding) Storm Petrel (*Hydrobates pelagicus*) [A014] (breeding) Lesser Black-backed Gull (*Larus fuscus*) [A183] (breeding)	The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. The distribution of the population should be being maintained, or where appropriate increasing. There should be sufficient habitat, of sufficient quality, to support the population in the long term. Factors affecting the population, or its habitat should be under appropriate control.
		Chough (*Pyrrhocorax pyrrhocorax*) [A346] Short-eared owl (*Asio flammeus*) [A222]	No conservation objective available
Grassholm SPA [UK9014041]; Version 2, dated 8 April 2008 (NRW, 2008a)	244.2/237.9/240.6	Gannet (*Morus bassanus*) [A016] (breeding)	To maintain favourable conservation status

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Anglesey Terns SPA [UK9013061]; (NRW, 2015)	121.1/105.2/95.2	Arctic Tern (*Sterna paradisaea*) [A194] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Roseate Tern (*Sterna dougallii*) [A192] (breeding) Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding)	To maintain favourable conservation condition
Puffin Island SPA [UK9020285]; Version 1, dated March 2008 (NRW, 2008b)	174.5/158.4/147.8	Cormorant (*Phalacrocorax carbo*) [A017] (breeding)	To achieve and maintain favourable conservation status
Ailsa Craig SPA [UK9003091]; dated 25 September 2009 (Scottish Natural Heritage (SNH), 2009a)	175.5/168.3/153.8	Kittiwake (*Rissa tridactyla*) [A188] (breeding) Gannet (*Morus bassanus*) [A016] (breeding) Lesser Black-backed Gull (*Larus fuscus*) [A183] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Herring Gull (*Larus argentatus*) [A184] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
North Colonsay and Western Cliffs SPA [UK9003171]; dated 25 September 2009 (SNH, 2009b)	247.4/247.1/236.8	Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Chough (*Pyrrhocorax pyrrhocorax*) [A346] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
Rum SPA [UK9001341]; dated November 2021 (SNH, 2021)	338.1/338.2/328.6	Manx Shearwater (*Puffinus puffinus*) [A013] (breeding) Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Red-throated Diver (*Gavia stellata*) [A001] (breeding) Golden eagle (*Aquila chrysaetos*) [A091] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
Mingulay and Berneray SPA [UK9001121]; dated 25 September 2009 (SNH, 2009c)	329.6/330.0/326.8	Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Fulmar (*Fulmarus glacialis*) [A009] (breeding) Shag (*Phalacrocorax aristotelis*) [A018] (breeding) Razorbill (*Alca torda*) [A200] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
Shiant Isles SPA [UK9001041]; dated 25 September 2009 (SNH, 2009d)	445.3/445.4/435.8	Barnacle goose (*Branta leucopsis*) [A045] Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Fulmar (*Fulmarus glacialis*) [A009] (breeding) Shag (*Phalacrocorax aristotelis*) [A018] (breeding) Razorbill (*Alca torda*) [A200] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
St Kilda SPA [UK9001031]; dated 25 September 2009 (SNH, 2009e)	450.0/450.5/448.6	Fulmar (*Fulmarus glacialis*) [A009] (breeding) Gannet (*Morus bassanus*) [A016] (breeding) Manx Shearwater (*Puffinus puffinus*) [A013] (breeding) Leach's petrel (*Oceanodroma leucorhoa*) [A015] (breeding) Storm Petrel (*Hydrobates pelagicus*) [A014] (breeding) Kittiwake (*Rissa tridactyla*) [A188] (breeding) Guillemot (*Uria aalge*) [A199] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding) Razorbill (*Alca torda*) [A200] (breeding) Great skua (*Stercorarius skua*) [A175] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
Glas Eileanan SPA [UK9003211]; dated 20 February 1998 (SNH, 1998)	297.5/295.8/284.5	Common Tern (*Sterna hirundo*) [A193] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
Canna and Sanday SPA [UK9001431]; dated 25 September 2009 (SNH, 2009f)	352.4/352.5/343.6	Guillemot (*Uria aalge*) [A199] (breeding) Herring Gull (*Larus argentatus*) [A184] (breeding) Kittiwake (*Rissa tridactyla*) [A188] (breeding) Puffin (*Fratercula arctica*) [A204] (breeding) Shag (*Phalacrocorax aristotelis*) [A018] (breeding)	To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained
Ribble and Alt Estuaries SPA [UK9005103]; Version 4, dated 21 February 2019 (Natural England (NE), 2019a)	224.3/207.4/194.5	Common Tern (*Sterna hirundo*) [A193] (breeding) Lesser Black-backed Gull (*Larus fuscus*) [A183] (breeding) Bewick's swan (*Cygnus columbianus bewickii*) [A037] Whooper swan (*Cygnus cygnus*) [A038] Pink-footed goose (*Anser brachyrhynchus)* [A040] Common shelduck (*Tadorna tadorna*) [A048] Eurasian wigeon (*Anas Penelope*) [A050] Teal (*Anas crecca*) [A052] Northern pintail (*Anas acuta)* [A054] Eurasian oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Ruff (*Philomachus pugnax*) [A151] (breeding) Black-tailed godwit (*Limosa limosa islandica*) [A156] Bar-tailed godwit (*Limosa lapponica*) [A157] Redshank (*Tringa tetanus*) [A162]	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Liverpool Bay SPA [UK9020294]; Version 5, dated 21 February 2019 (NE, 2019b)	154.7/138.5/127.7	Little Tern (*Sterna albifrons*) [A195] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Red-throated Diver (*Gavia stellata*) [A001] Common Scoter (*Melanitta nigra*) [A065] Little gull (*Hydrocoloeus minutus*) [A177]	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive
Morecambe Bay and Duddon Estuary SPA [UK9020326]; Version 6, dated 21 February 2019 (NE, 2019c)	202.9/186.4/170.8	Little Tern (*Sterna albifrons*) [A195] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Sandwich Tern (*Sterna sandvicensis*) [A191] (breeding) Herring Gull (*Larus argentatus*) [A184] (breeding) Lesser Black-backed Gull (*Larus fuscus*) [A183] (breeding) Little egret (*Egretta garzetta*) [A026] Whooper swan (*Cygnus cygnus*) [A038] Pink-footed goose (*Anser brachyrhynchus)* [A040] Shelduck (*Tadorna tadorna*) [A048] Northern pintail (*Anas acuta)* [A054] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed plover (*Charadrius hiaticula)* [A137] European golden plover (*Pluvialis apricaria*) [A140] Grey plover (*Pluvialis squatarola*) [A141] Red knot (*Calidris canutus)* [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina alpina*) [A149] Ruff (*Philomachus pugnax*) [A151] Black-tailed godwit (*Limosa limosa islandica*) [A156] Bar-tailed godwit (*Limosa lapponica*) [A157] Eurasian curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Ruddy turnstone (*Arenaria interpres*) [A169] Mediterranean gull (*Larus melanocephalus*) [A176]	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive
The Dee Estuary SPA [UK9013011]; Version 4, dated 21 February 2019 (NE, 2019d)	213.1/196.5/184.9	Little Tern (*Sterna albifrons*) [A195] (breeding) Common Tern (*Sterna hirundo*) [A193] (breeding) Sandwich Tern (*Sterna sandvicensis*) [A191] Shelduck (*Tadorna tadorna*) [A048] Eurasian teal (*Anas crecca*) [A052] Northern pintail (*Anas acuta)* [A054] Eurasian oystercatcher (*Haematopus ostralegus*) [A130] Grey plover (*Pluvialis squatarola*) [A141] Red knot (*Calidris canutus*) [A143] Dunlin (*Calidris alpina alpine*) [A149] Black-tailed godwit (*Limosa limosa islandica*) [A156] Bar-tailed godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa tetanus*) [A162]	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive

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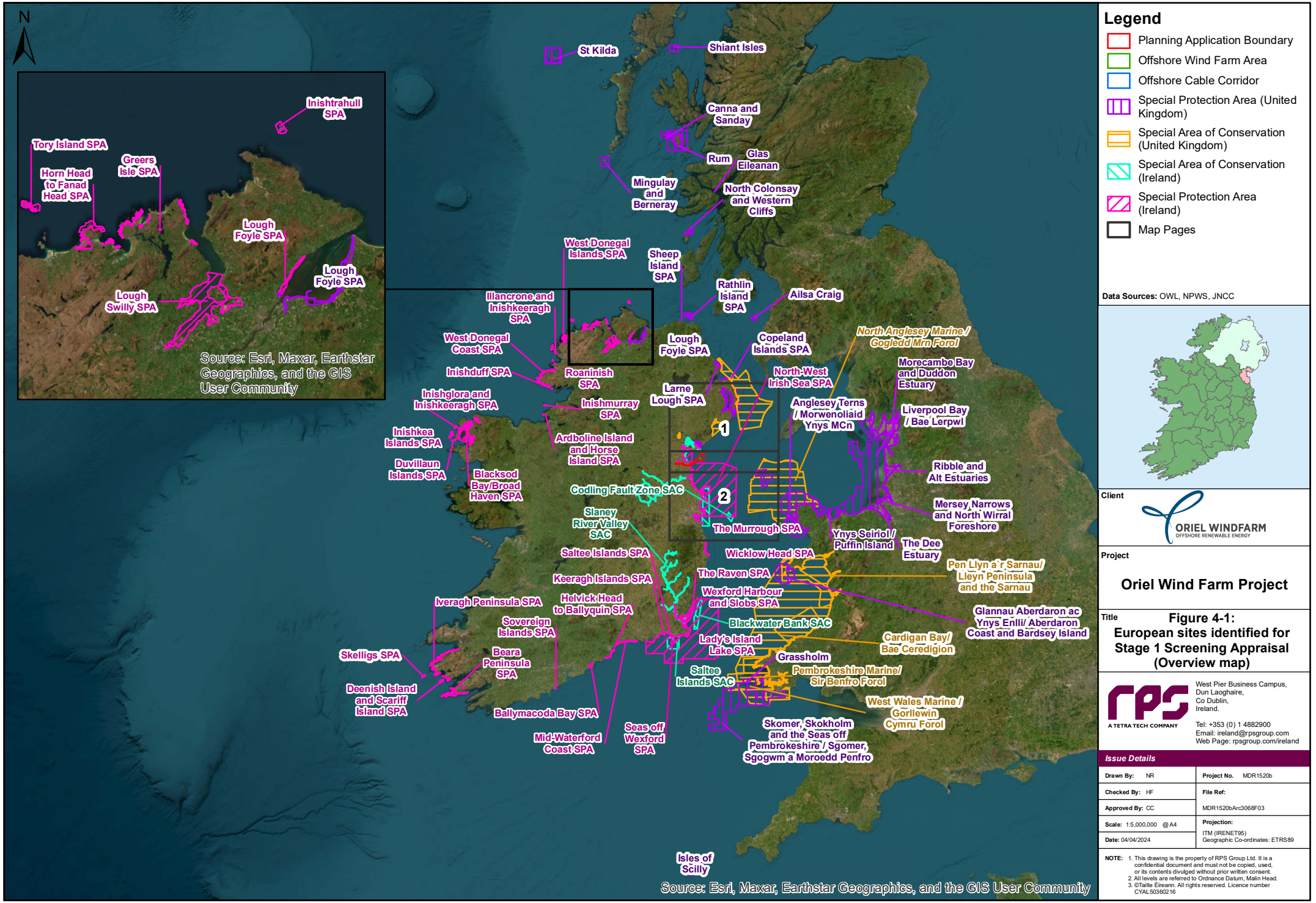
Mersey Narrows and North Wirral Foreshore SPA [UK9020287]; Version 2, dated 21 February 2019 (NE, 2019e)	223.4/206.8/194.7	Common Tern (*Sterna hirundo*) [A193] (breeding) Bar-tailed godwit (*Limosa lapponica*) [A157] Little gull (*Hydrocoloeus minutus*) [A177] Knot (*Calidris canutus islandica*) [A143]	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive
Isles of Scilly SPA [UK9020288]; Version 3, dated 21 February 2019 (NE, 2019f)	430.8/428.2/434.3	Shag (*Phalacrocorax aristotelis*) [A684] (breeding) Lesser Black-backed Gull (*Larus fuscus*) [A183] (breeding) Storm Petrel (*Hydrobates pelagicus*) [A014] (breeding) Great black-backed gull (*Larus marinus*) [A187] (breeding)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive
Slieve Gullion SAC [UK0030277]; Version 2.1 dated 11 October 2017 (DoENI/Northern Ireland Environment Agency (NIEA), 2017)	28.7/27.6/28.2	European dry heaths [4030]	To maintain (or restore where appropriate) the European Dry Heaths to favourable condition.
Murlough SAC [UK0016612]; Version 4, dated 24 March 2017 (JNCC, 2017)	50.0/37.9/22.0	Fixed coastal dunes with herbaceous vegetation [2130] Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150] Sandbanks which are slightly covered by sea water all the time [1110] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* [2120] Dunes with *Salix repens* ssp. *argentea* (Salicion arenariae) [2170] Marsh fritillary butterfly *Euphydryas aurinia* [1065] Harbour Seal (*Phoca vitulina*) [1365]	To maintain to favourable condition
North Channel SAC [UK0030399]; March 2019 (JNCC, 2019a)	79.2/64.6/47.8	Harbour porpoise (*Phocoena phocoena*)) [1351]	To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status
North Anglesey Marine/Gogledd Môn Forol SAC [UK0030398]; March 2019 (JNCC, 2019b)	83.5/67.0/56.0	Harbour porpoise (*Phocoena phocoena*)) [1351]	To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status
West Wales Marine/Gorllewin Cymru Forol SAC [UK0030397]; dated January 2016 (JNCC, 2016b)	155.2/142.0/136.0	Harbour porpoise (*Phocoena phocoena*)) [1351]	To avoid deterioration of the habitats of the harbour porpoise or significant disturbance to the harbour porpoise, thus ensuring that the integrity of the site is maintained, and the site makes an appropriate contribution to maintaining Favourable Conservation Status

Site (Code), and Conservation Objective Version	Distance (km) to onshore substation site / onshore cable route / offshore wind farm area	Qualifying Interest(s) [code] * indicates Priority Habitat; and Special Conservation Interest(s) [code]. Breeding status of Special Conservation Interests noted where outlined in relevant Conservation Objective documents	Conservation Objective(s)
Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC [UK0013117]; dated February 2009 (JNCC 2009a)	157.9/145.3/139.3	Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130] Coastal lagoons [1150] Large shallow inlets and bays [1160] Reefs [1170] Mudflats and sandflats not covered by seawater at low tide [1140] Salicornia and other annuals colonizing mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Submerged or partially submerged sea caves [8330] Bottlenose Dolphin (*Tursiops truncatus)* [1349] Otter (*Lutra lutra*) [1355] Grey Seal (*Halichoerus grypus*) [1364]	To achieve favourable conservation status
Cardigan Bay/Bae Ceredigion SAC (UK0012712) dated February 2009 (JNCC 2009b)	208.5/198.8/196.5	Sandbanks which are slightly covered by sea water all the time [1110] Reefs [1170] Submerged or partially submerged sea caves [8330] Bottlenose Dolphin (*Tursiops truncatus*) [1349] Sea lamprey (*Petromyzon marinus*) [1095] River lamprey (*Lampetra fluviatilis*) [1099] Grey Seal (*Halichoerus grypus*) [1364]	To achieve favourable conservation status
Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116); dated February 2009 (JNCC 2009c)	223.4/216.8/219.3	Estuaries [1130] Large shallow inlets and bays [1160] Reefs [1170] Sandbanks which are slightly covered by sea water all the time [1110] Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Submerged or partially submerged sea caves [8330] Grey Seal (*Halichoerus grypus*) [1364] Shore dock *Rumex rupestris* [1441] Sea lamprey *Petromyzon marinus* [1095] River lamprey *Lampetra fluviatilis* [1099] Allis shad *Alosa alosa* [1102] Twaite shad *Alosa fallax* [1103] Otter *Lutra lutra* [1355]	To achieve favourable conservation status



Legend

- Planning Application Boundary
- Offshore Wind Farm Area
- Offshore Cable Corridor
- Special Protection Area (United Kingdom)
- Special Area of Conservation (United Kingdom)
- Special Area of Conservation (Ireland)
- Special Protection Area (Ireland)
- Map Pages

Data Sources: OWL, NPWS, JNCC

Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

Figure 4-1: European sites identified for Stage 1 Screening Appraisal (Overview map)

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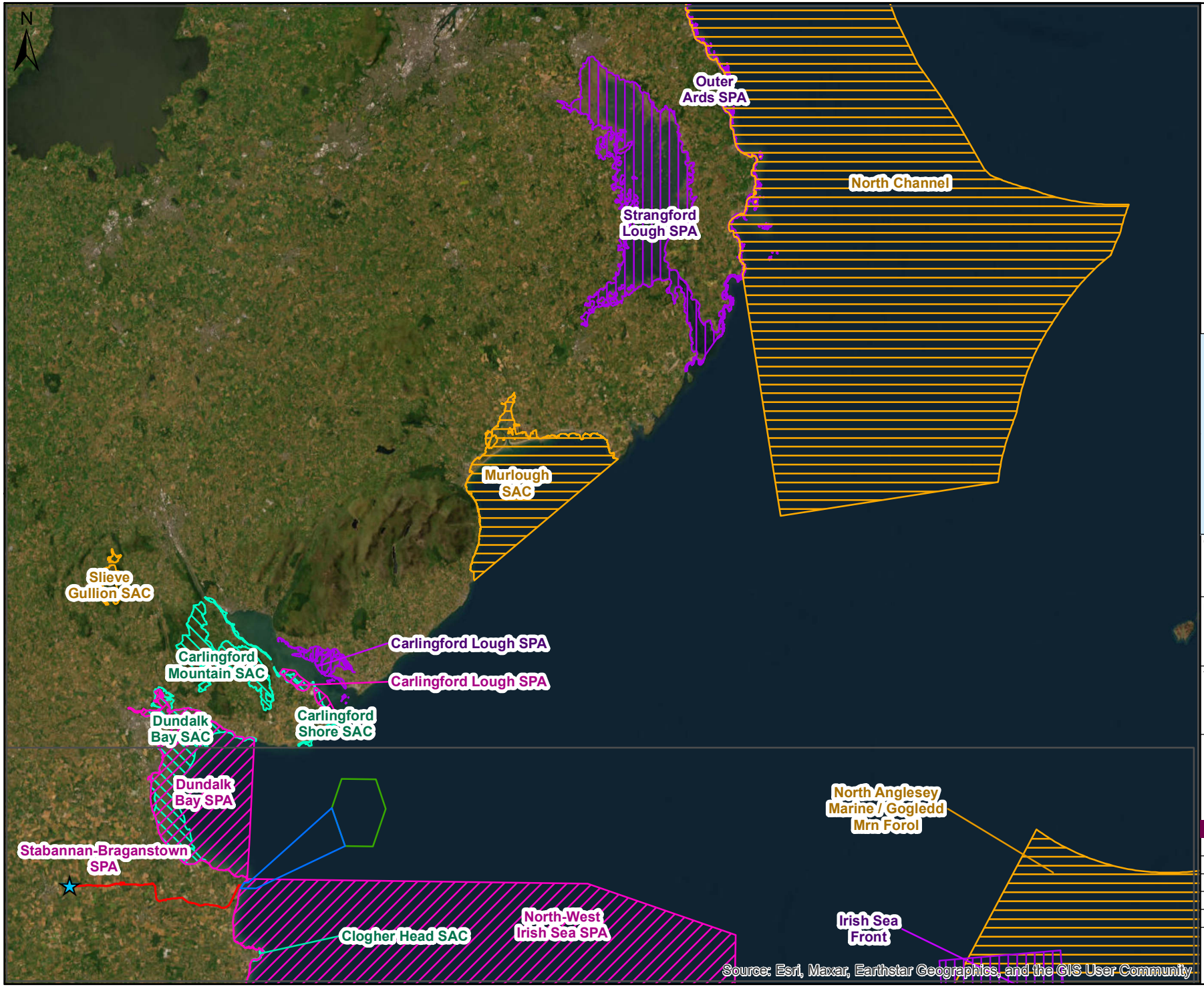
Issue Details

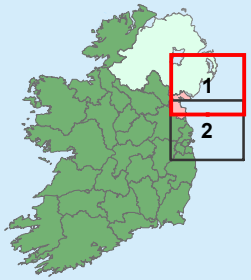
Drawn By: NR	**Project No.** MDR1520b
Checked By: HF	**File Ref:** MDR1520bArc3068F03
Approved By: CC	
Scale: 1:5,000,000 @A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 04/04/2024	



Legend

- Planning Application Boundary
- Offshore Cable Corridor
- Offshore Wind Farm Area
- Onshore Substation Site
- Special Area of Conservation (United Kingdom)
- Special Protection Area (United Kingdom)
- Special Protection Area (Ireland)
- Special Area of Conservation (Ireland)

Data Sources: OWL, NPWS, JNCC



Client

ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Project

Oriel Wind Farm Project

Title

Figure 4-1:
European sites identified for Stage 1 Screening Appraisal
Map 1 of 2

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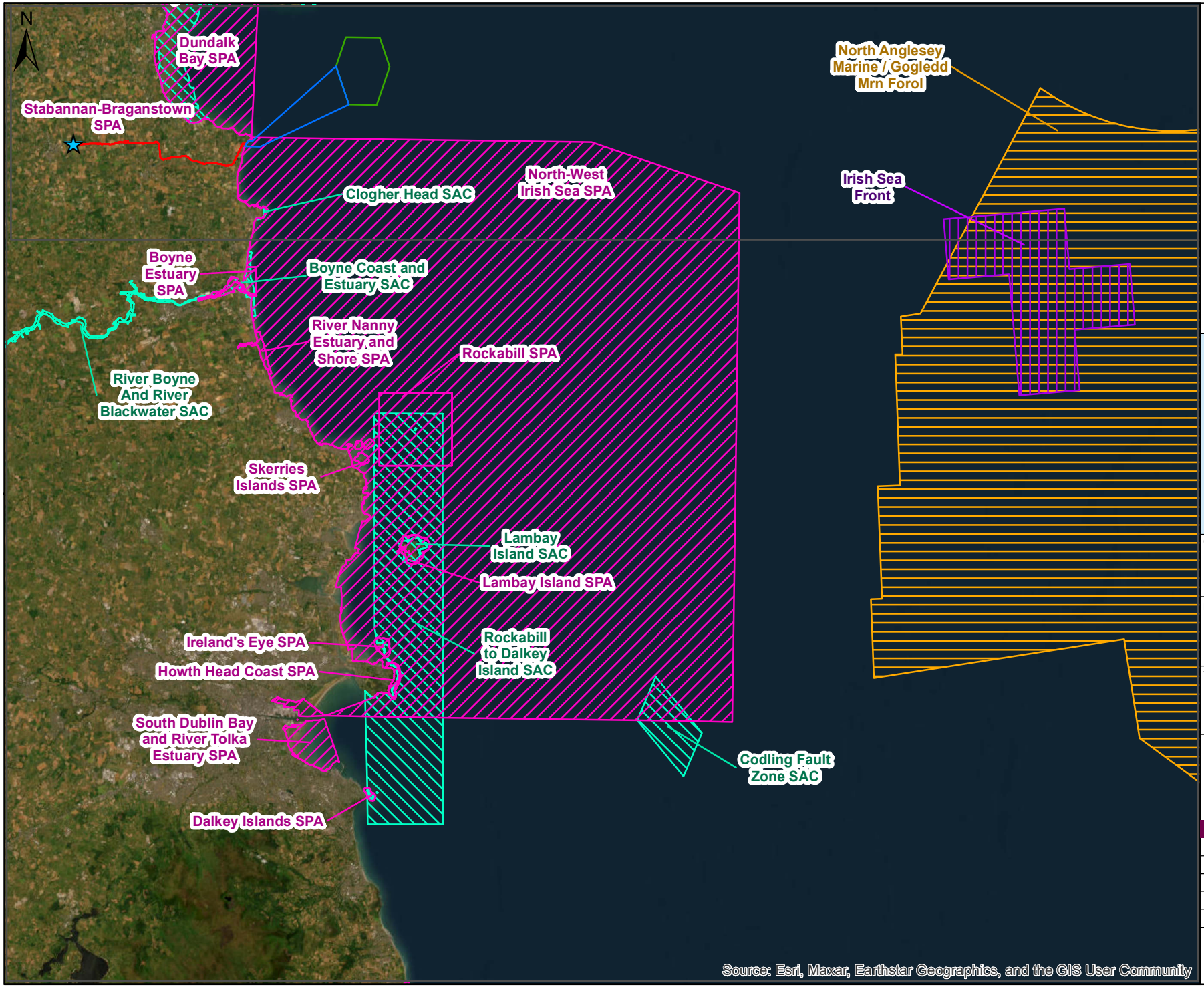
Issue Details

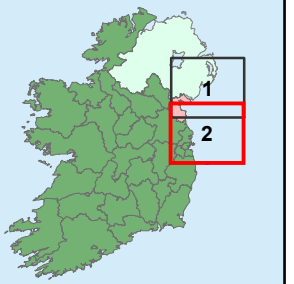
Drawn By: NR	**Project No.** MDR1520b
Checked By: HF	**File Ref:** MDR1520bArc3068F03
Approved By: CC	
Scale: 1:500,000 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 04/04/2024	



Legend

- Planning Application Boundary
- Offshore Cable Corridor
- Offshore Wind Farm Area
- Onshore Substation Site
- Special Area of Conservation (United Kingdom)
- Special Protection Area (United Kingdom)
- Special Protection Area (Ireland)
- Special Area of Conservation (Ireland)

Data Sources: OWL, NPWS, JNCC



Client

ORIEL WINDFARM
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Project

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Title

Figure 4-1:
European sites identified for Stage 1 Screening Appraisal
Map 2 of 2

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Issue Details

Drawn By: NR	**Project No.** MDR1520b
Checked By: HF	**File Ref:** MDR1520bArc3068F03
Approved By: CC	
Scale: 1:500,000 @ A4	**Projection:** ITM (IRENET95) Geographic Co-ordinates: ETRS89
Date: 04/04/2024	

4.4 Assessment of likely significant effects

4.4.1 Annex I Habitats

All QI habitats of the European sites included in the assessment are listed in Table 4-1. Where no pathway or connectivity between the Project and European sites is deemed likely due to the distance between the site and the Project, such QI habitats have been screened out. As such, sites greater than 50 km away have been screened out. This distance was chosen because it encompasses the maximum ZoIs relevant to Annex I habitat listed in section 3.2.1.1 to section 3.2.1.3 and an additional buffer to allow for a precautionary assessment.

4.4.1.1 Marine/coastal habitat

The following 18 marine or coastal QI habitats at or below the HWM have been identified (see Table 4-1) within the ZoIs for marine processes (see section 3.2.1.2) and benthic and intertidal ecology only (section 3.2.1.3):

- Annual vegetation of drift lines [1210];
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330];
- Embryonic shifting dunes [2110];
- Estuaries [1130];
- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130];
- Mediterranean salt meadows (*Juncetalia maritimae*) [1410];
- Mudflats and sandflats not covered by seawater at low tide [1140];
- Perennial vegetation of stony banks [1220];
- Salicornia and other annuals colonising mud and sand [1310];
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120];
- Reefs [1170];
- Large shallow inlets and bays [1160];
- Submerged or partially submerged sea caves [8330];
- Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150];
- Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) [2170];
- Coastal lagoons [1150];
- Large shallow inlets and bays [1160]; and
- Sandbanks which are slightly covered by sea water all the time [1110].

There is potential for water pollution (i.e., elevated concentrations of pollutants and suspended sediments) arising from construction, operational and maintenance, and decommissioning activities to effect QI marine and coastal habitats. This potential impact pathway is via a hydrological connectivity (marine, freshwater and groundwater) between the Project and European sites.

Relevant marine and coastal habitat QIs which occur above the high-water mark are not deemed to be susceptible to likely significant effects resulting from hydrological connectivity, as no marine, freshwater or groundwater pathway connected with the onshore and offshore infrastructure of the Project exists for interaction (see Table 4-3). Therefore, the following five QI habitats are scoped out of further assessment:

- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130];
- Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150];
- Perennial vegetation of stony banks [1220];
- Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) [2170]; and
- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230].

For the remaining marine and coastal habitat 13 QIs, upon assessment, no pathway was identified at or below the HWM from freshwater or groundwater hydrological sources. However, likely significant effects as a result of marine water pollution upon QI marine and coastal habitats which occur at or below the HWM, cannot be excluded at the screening stage, in the absence of mitigation. The relevant European sites for which LSEs on these QIs can be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

Wetland and Waterbirds [A999] habitats are assessed in section 4.4.7.

4.4.1.2 Terrestrial habitats

The following 12 terrestrial QI habitats have been identified (see Table 4-1) within the terrestrial and freshwater ZoI of the Project (see section 3.2.1.1):

- Alkaline fens [7230];
- Alpine and Boreal heaths [4060];
- European dry heaths [4030];
- Northern Atlantic wet heaths with *Erica tetralix* [4010];
- Siliceous rocky slopes with chasmophytic vegetation [8220];
- Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110];
- Transition mires and quaking bogs [7140];
- Blanket bogs [7130];
- Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230];
- Calcareous rocky slopes with chasmophytic vegetation [8210];
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]; and
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0].

No potential impact pathway between the construction, operational and maintenance or decommissioning of the Project and any QI terrestrial habitats of European site(s) have been identified. Relevant QI terrestrial habitats are not deemed to be susceptible to likely significant effect resulting from hydrological connectivity

(i.e., surface and groundwater connected to the onshore infrastructure of the Project), as they occur outside the CMU of the Project. Where habitats do occur within the CMU (i.e., habitats associated with Carlingford Mountain SAC and Slieve Gullion SAC, no hydrological or other connectivity has been identified. Additionally, these QI habitats are outside the reach of any marine hydrological influence.

Therefore, all terrestrial QI habitats are scoped out of further assessment. The relevant European sites for which LSEs on these QIs can be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

4.4.1.3 Freshwater habitat

The following freshwater QI habitats have been identified (see Table 4-1) within the terrestrial and freshwater ZoI of the Project (see section 3.2.1.1):

- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260].

No potential impact pathway between the construction, operational and maintenance or decommissioning of the Project and any QI freshwater habitats of European site(s) have been identified. This freshwater QI habitat occurs as part of the Slaney River Valley SAC located > 90 km from the Project, which is located outside the precautionary 50 km ZoI and does not support hydrological connectivity to the Project area.

Relevant QI freshwater habitat are not deemed to be susceptible to likely significant effect resulting from hydrological connectivity (i.e., freshwater and groundwater associated with the onshore components of the Project); therefore, all terrestrial QI habitats are scoped out of further assessment.

The relevant European sites for which LSEs on these QIs can be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

As above, Wetland and Waterbirds [A999] habitats are assessed in section 4.4.7.

4.4.2 Annex II flora

The following QI flora have been identified (see Table 4-1) within the terrestrial and freshwater ZoI of the Project (see section 3.2.1.1):

- Shore dock (*Rumex rupestris*) [1441].

No potential impact pathway between the construction, operational and maintenance or decommissioning of the Project and any QI flora of European site(s) have been identified, as shore dock is a QI of Pembrokeshire Marine/Sir Benfro Forol SAC which is located outside (approximately >200 km from the Project) the precautionary 50 km ZoI. Therefore, there is no connectivity between this QI species and any surface water feature connected to the Project. Shore dock occurs above the high-water mark and is not deemed to be susceptible to likely significant effect resulting from hydrological connectivity (i.e., marine, freshwater and groundwater).

Therefore, all terrestrial QI flora are scoped out of further assessment. The relevant European sites for which LSEs on this QI can be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

4.4.3 Annex II marine mammals

The following QI marine mammals have been identified (see Table 4-1) within the ZoI for marine mammals of the Project (see section 3.2.1.6):

- Harbour porpoise (*Phocoena phocoena*) [1351];
- Bottlenose Dolphin (*Tursiops truncatus*) [1349];
- Grey Seal (*Halichoerus grypus*) [1364]; and

- Harbour Seal (*Phoca vitulina*) [1365].

4.4.3.1 Harbour porpoise

Harbour porpoise is a QI of the following SACs: Rockabill to Dalkey Island SAC, located 30.6 km south of the offshore wind farm area; Lambay Island SAC, located 43.1 km south of the offshore wind farm area; North Channel SAC, located 47.8 km north of the offshore wind farm area; North Anglesey Marine/ Gogledd Môn Forol SAC, located 56 km east of the offshore wind farm area; Codling Fault Zone SAC, located 63 km south of the offshore wind farm area; West Wales Marine/Gorllewin Cymru Forol SAC, located 136 km southeast of the offshore wind farm area; and Blackwater Bank SAC, located 145.3 km south of the offshore wind farm area.

Often living in cool waters, harbour porpoise has a higher metabolic rate than dolphins and therefore needs to feed more frequently and consume more prey per unit body weight, in order to maintain their body temperature and other energy needs. For this reason, porpoises may be highly susceptible to changes in the abundance of prey species or disturbance from foraging areas. This species feeds on a wide variety of fish and generally focus on the most abundant local species.

Harbour porpoise, as a species, is particularly vulnerable to disturbance, as individual harbour porpoise needs to forage frequently due to their high metabolic rate. During the construction and decommissioning phases, disturbance could potentially occur as a result of underwater noise from piling, vessel movements and other construction activities. For this reason, porpoises may be highly susceptible to disturbance impacts. Furthermore, disturbances such as these may also cause potential injury to porpoises such as permanent and temporary auditory injury or reduced reproductive success.

A potential impact pathway via the marine environment between the construction and decommissioning phases of the Project and this QI of relevant European site(s) has been identified. Therefore, likely significant effects as a result of potential injury and/or disturbance from underwater noise during pile-driving, vessel movement and other construction activities; and changes in the fish and shellfish community affecting prey resources, cannot be excluded at the screening stage in the absence of mitigation.

The relevant European sites for which LSEs on this QI cannot be excluded at the screening stage, in the absence of mitigation, are listed in Table 4-3.

4.4.3.2 Bottlenose dolphin

Bottlenose dolphin is the QI of Cardigan Bay/Bae Ceredigion SAC, located 196.8 km east of the offshore wind farm area; and is a qualifying feature of the Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC in northern Cardigan Bay, located 139.3 km southeast the offshore wind farm area.

Bottlenose dolphin are found throughout the world's tropical and temperate marine waters and are regularly recorded in Irish coastal and offshore waters (NPWS, 2019) and in all seasons (Berrow *et al.,* 2018; Rogan *et al.,* 2018). There is variation in the patterns of habitat use of bottlenose dolphin, even within a population, and generally the distribution of this species is influenced by factors such as tidal state, weather conditions, resource availability, life cycle stage, or season (Hastie *et al.,* 2004). Investigations of the feeding habits of bottlenose dolphin in Irish waters reported that this species preys on salmon, garfish *Belone belone*, and eels *Anguilla anguilla* in estuarine environments, whilst pollock, whiting and saithe have been identified from the stomach contents of stranded animals (O'Brien *et al.,* 2009).

Bottlenose dolphin are not thought to be as vulnerable to disturbance as harbour porpoise, as foraging requirements are less frequent. During the construction and decommissioning phases, disturbance could potentially occur as a result of underwater noise from piling, vessel movements and other construction activities. Bottlenose dolphin could tolerate the effects of disturbance however, due to the uncertainties associated with this, bottlenose dolphin is deemed to have some sensitivity to strong and mild disturbances. Furthermore, disturbances such as these may also cause potential injury to bottlenose dolphin such as auditory injury and biological effects that could impact on animals' health and vital rates.

A potential impact pathway via the marine environment between the construction and decommissioning phases of the Project and this QI of relevant European site(s) has been identified. Therefore, likely significant effects as a result of potential injury and/or disturbance from underwater noise during pile-driving, vessel

movement and other construction activities; and changes in the fish and shellfish community affecting prey resources, cannot be excluded at the screening stage in the absence of mitigation.

The relevant European sites for which LSEs on this QI cannot be excluded at the screening stage, in the absence of mitigation, are listed in Table 4-3.

4.4.3.3 Grey seal

Grey seal is a QI of Lambay Island SAC, located 43.1 km south of the offshore wind farm area; Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC, located 139.3 km southeast of the offshore wind farm area; and Pembrokeshire Marine/Sir Benfro Forol SAC, located approximately 216.8 km south-southeast of the offshore wind farm area.

Grey seal is the larger of the two pinniped species which occur around the Irish coast. Lambay Island SAC supports the principal breeding colony of grey seal on the east coast of Ireland. Breeding occurs in late August to December and the annual moult between November to April. The closest haul-out sites to the Project are at the mouth of Carlingford Lough (haul-out located 4.5 km from the offshore wind farm area and 5.6 km from the offshore cable corridor) and Clogherhead (haul-out located 10 km from the offshore wind farm area and 5.5 km from the offshore cable corridor). The key prey species for marine mammals such as grey seal include a number of clupeids (e.g., herring), gadoids (e.g., cod, whiting), salmon, flatfish and sandeels.

Strong disturbance could result in displacement of seals (i.e., grey seal) from an area. Disturbance could cause slight changes in behaviour such as forcing grey seals to travel greater distances than usual to forage. Grey seal are likely to exhibit some tolerance to the effects of disturbance however, due to the uncertainties associated with this, grey seal is deemed to have some sensitivity to strong and mild disturbances. Furthermore, disturbances such as these may also cause potential injury to grey seal such as impacts on both reproduction and survival rates.

A potential impact pathway via the marine environment between the construction and decommissioning phases of the Project and this QI of relevant European site(s) has been identified. Therefore, likely significant effects as a result of potential injury and/or disturbance from underwater noise during pile-driving, vessel movement and other construction activities; and changes in the fish and shellfish community affecting prey resources, cannot be excluded at the screening stage in the absence of mitigation.

The relevant European sites for which LSEs on this QI cannot be excluded at the screening stage, in the absence of mitigation, are listed in Table 4-3.

4.4.3.4 Harbour seal

Harbour seal is a QI of the Lambay Island SAC, located 43.1 km south of the offshore wind farm area, Murlough SAC, located 22 km north of the offshore wind farm area, and Slaney River Valley SAC, located 102.1 km south of the offshore wind farm area.

Harbour (common) seal is the smaller of the two species of pinniped found in the UK and Ireland, and breed in small groups scattered along the coastline. The closest haul-out sites for harbour seal to the Project are at the mouth of Carlingford Lough (6.5 km from the offshore wind farm area; 9.6 km from the offshore cable corridor), Clogherhead (9.4 km from the offshore wind farm area; 4.9 km from the offshore cable corridor) and Dundalk Bay (17.8 km from the offshore wind farm area; 18.3 km from the offshore cable corridor). The key prey species for marine mammals such as harbour seal include a number of clupeids (e.g., herring), gadoids (e.g., cod, whiting), salmon, flatfish and sandeels. Harbour seals tend to forage within a maximum of 40 or 50 km of their haul-out sites, but most foraging trips tend to be within shorter ranges (Special Committee On Seals (SCOS), 2018).

Strong disturbance could result in displacement of seals (i.e., harbour seal) from an area. Disturbance could cause slight changes in behaviour such as forcing harbour seals to travel greater distances than usual to forage. Harbour seals are likely to exhibit some tolerance to the effects of disturbance however, due to the uncertainties associated with this, harbour seal is deemed to have some sensitivity to strong and mild disturbances. Furthermore, disturbances such as these may also cause potential injury to harbour seal such as impacts on both reproduction and survival rates.

A potential impact pathway via the marine environment between the construction and decommissioning of the Project and this QI of relevant European site(s) has been identified. Therefore, likely significant effects as a result of potential injury and/or disturbance from underwater noise during pile-driving, vessel movement and other construction activities; and changes in the fish and shellfish community affecting prey resources, cannot be excluded at the screening stage in the absence of mitigation.

The relevant European sites for which LSEs on this QI cannot be excluded at the screening stage, in the absence of mitigation, are listed in Table 4-3.

4.4.4 Annex II terrestrial and freshwater mammals

The following QI marine mammals have been identified (see Table 4-1) within the terrestrial and freshwater ZoI of the Project (see section 3.2.1.1):

- Otter (*Lutra lutra*) [1355]

The territories of male otters tend to be larger than female otters and have been known to forage up to distances of 32 and 40 km (NatureScot, 2021; National Trust, 2021). The distance of 40 km is the maximum distance considered for foraging otter in this assessment. It is also noted that otters are capable of approximately 13 km ditch and overland journeys between watersheds (Jefferies, 1989).

Based on the documented 40 km foraging range of otter, a potential pathway between the construction, operational and maintenance or decommissioning of the Project has been identified with the River Boyne and River Blackwater SAC, located approximately 12.3 km south of the Project via hydrological connectivity (freshwater). There is potential for water pollution (i.e., elevated concentrations of pollutants and suspended sediments) and disturbance impacts arising from construction, operational and maintenance, and decommissioning activities to effect QI otter. It is also noted that offshore disturbance impacts on Annex II migratory fish which return to freshwater reaches from marine waters as part of their life cycle, may also indirectly effect prey resources available to otter. A potential impact pathway between the construction and decommissioning of the Project and QI otter of European site(s) have been identified. Therefore, likely significant effects as a result of water pollution (surface water), disturbance (noise and vibration), and prey resources available cannot be excluded at the screening stage in the absence of mitigation.

The relevant European sites for which LSEs on this QI cannot be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

4.4.5 Annex II fish

The following QI fish have been identified (see Table 4-1) within the fish and shellfish ZoI of the Project (see section 3.2.1.5):

- Atlantic Salmon (*Salmo salar*) [1106];
- Twaite Shad (*Alosa fallax fallax*) [1103];
- Allis shad (*Alosa alosa*) [1102];
- River Lamprey (*Lampetra fluviatilis*) [1099];
- Sea Lamprey (*Petromyzon marinus*) [1095]; and
- Brook Lamprey (*Lampetra planeri*) [1096].

Given that mobile QI fish species have the capacity to travel widely within their range, effects can occur at great distances. These species have the potential to be impacted by deterioration in water quality, and injury or disturbance from underwater noise and electromagnetic fields (which may also lead to morality) during the construction, operational and maintenance or decommissioning phases. Although the allis shad has been recorded in SACs in Ireland (King and Linnane, 2004), it is not a QI of any SAC on the Island of Ireland. The closest relevant site with QI allis shad is the Pembrokeshire Marine/Sir Benfro Forol SAC, which is located

approximately 216.8 km from the Project. This distance is deemed to be too great for any likely significant effect to occur; therefore, allis shad are scoped out of further assessment.

Unlike sea lamprey and the river lamprey, brook lamprey are non-parasitic and non-migratory as an adult, living their entire life in freshwater (NPWS, 2019). Brook lamprey are not a QI within the same CMU as the Project; therefore, brook lamprey are scoped out of further assessment.

Of the remaining QI fish species, a pathway has been identified between river lamprey and Atlantic salmon associated with the Slaney River Valley SAC, and river lamprey, sea lamprey, Atlantic salmon and twaite shad associated with the River Boyne And River Blackwater SAC and Slaney River Valley SAC, due to both European sites occurring within ZoI for fish and shellfish. As these four QI fish species have the potential to occur within the offshore wind farm area, they are susceptible to impacts associated with the construction, operational and maintenance and decommissioning of the Project.

A potential impact pathway between the construction and decommissioning of the Project and QI fish (i.e., lamprey, sea lamprey, Atlantic salmon and twaite shad) of European site(s) have been identified. Therefore, likely significant effects as a result of temporary subtidal habitat loss/disturbance, long-term subtidal habitat loss, injury and/or disturbance to fish from underwater noise during pile-driving, increased suspended sediment concentrations and associated sediment deposition, and EMF from subsea electrical cabling, cannot be excluded at the screening stage in the absence of mitigation.

The relevant European sites for which LSEs on this QI cannot be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

4.4.6 Annex II invertebrates

The following QI invertebrates have been identified (see Table 4-1) within the potential ZoI of the Project (see section 3.2.1.1):

- Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]; and
- Marsh Fritillary (*Euphydryas aurinia*) [1065].

With respect to the QI freshwater pearl mussel listed, Atlantic salmon (*Salmo salar)* are host species during a critical parasitic phase of the lifecycle of these mussels. There could, therefore, be an indirect impact upon the freshwater pearl mussel of the Slaney River Valley SAC if the salmon population is adversely affected (see section 4.4.5).

A potential impact pathway between the construction, operational and maintenance and decommissioning phases of the Project and QI freshwater pearl mussel of one European site (Slaney River Valley SAC) has been identified. Therefore, likely significant effects as a result of effects on host species (Atlantic salmon) as a result of water pollution and injury and/or disturbance causing indirect effects on freshwater pearl mussel.

The relevant European sites for which LSEs on this QI, cannot be excluded at the screening stage, and in the absence of mitigation, are listed in Table 4-3.

The evidence indicates that most Marsh Fritillary are sedentary, rarely dispersing beyond 750 m, although long range dispersal over longer distances of 5-20 km can occur allowing colonisation and functioning of metapopulations (Warren, 1994; Zimmermann *et al.,* 2011). QI marsh fritillary which occur at European sites greater than 20 km away are not deemed to be susceptible to likely significant effect resulting from the Project. Therefore, no LSEs on this QI have been identified (see Table 4-3).

4.4.7 Birds directive and special conservation interests

SCI populations have been assessed on the basis of their foraging, breeding and migrating behaviour within the offshore ornithology ZoI of the Project (see section 3.2.1.4). For bird foraging behaviours, a desk-based assessment was undertaken for shorebirds, waders and wildfowl (section 4.4.7.2) and birds of inland and coastal SPAs (section 4.4.7.3). For seabirds (section 4.4.7.1), the Woodward *et al.* (2019) revision of seabird foraging ranges was used to determine likely foraging range. Other sources are referenced where relevant. The maximum foraging range was used for all birds where this distance was ≤100 km (which is greater than

the mean maximum foraging range plus one standard deviation). Where maximum foraging range was determined to be >100 km, the mean maximum foraging range plus one standard deviation was used (where available).

Of the 69 SCI species for which there are designated SPAs in Ireland, most are known to migrate. These species migrate either within Ireland, such as plover species migrating from coastal wintering sites to inland breeding sites, or internationally, such as tern species returning from Africa to breed in Ireland. While there are no SPAs in Ireland designated specifically for this migrating stage, it is acknowledged that the migrating SCI species moving into Ireland will be part of these breeding/wintering populations for which there are SPAs designated. Population trend is a site-specific CO for many of these SPAs. There is potential for the Project to result in a likely significant effect upon these SPAs, due to impacts on these migrating routes of SCI species.

In addition to Irish SCI species, other European SCI species within the Natura 2000 network and the UK national site network could potentially migrate along the east coast of Ireland, and thus interact with the Project. There is no migration range which can be applied as a ZoI, in the same way a foraging range can be used to indicate SPA connectivity. Many SCI species are known to fly north to a migration staging ground before flying south on migration. Additionally, birds on migration are known to feed while on migration, thus flying lower than typical migration heights and potentially interacting with the Project.

Given the nature of migrating birds described here, all migrating birds are being scoped in for further assessment without specifying the SPAs for which they are an SCI feature. Therefore, breeding and wintering populations only are discussed for each species in the sections below (section 4.4.7.1 to 4.4.7.3). These birds are scoped in/out for further Stage 2 appraisal for Appropriate Assessment, based on foraging ranges and proximity to suitable breeding/roosting sites.

4.4.7.1 Seabird populations of SPAs

Seabird populations that forage, breed, winter, and migrate within the ZoI of the Project (section 3.2.1.4) are potentially at risk from the construction, operational and maintenance, and decommissioning phases of the Project. Potential impact(s) include:

- Disturbance and displacement;
- Indirect disturbance and displacement resulting from changes to prey and habitats;
- Collision risk; and
- Barrier effect.

The following species of SCI seabirds are a feature of SPAs considered within the ZoI of the Project (see Table 4-4 for SCI seabirds and their relevant SPAs).

Arctic tern (*Sterna paradisaea*)

Arctic tern breeds in Ireland and is a SCI of 16 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and Rockabill SPA are the closest. The North-west Irish Sea intersects the offshore cable corridor whilst Rockabill SPA is located 26.9 km south of the Project and supports nationally important breeding populations of the species (250 pairs were recorded in 2010).

Foraging

Arctic tern forages in marine waters, chiefly on small marine fish[2] in addition to crustaceans and other invertebrates (NPWS, 2013f). The maximum foraging range for this designated species as described by Woodward *et al. (*2019) is 46 km. Consequently, there is a risk that breeding birds from the SPA population

[2] Birdwatch Ireland: List of Ireland's Birds. Available at: https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/list-of-irelands-birds/.

associated with the North-west Irish Sea SPA and Rockabill SPA will be present in the offshore wind farm area during the breeding season. The remaining SPAs (see Table 4-4) are located >46 km from the Project.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA and Rockabill SPA (see Table 4-4)**.

Breeding

Arctic tern is mainly a coastal breeding bird[2]. This seabird (along with other tern species) breeds on offshore islands, shingle beaches, man-made structures and on the islands of our inland lakes (e.g., Lough Corrib, Co. Galway and Lough Conn, Co. Mayo[2]) (Cummins *et al.,* 2019). As the Project does not interfere with known breeding locations on offshore islands, man-made structures, shingle beaches and inland lakes of the SPAs listed in Table 4-4, no likely significant effects are predicted. Where ex-situ shingle beach habitat, such as Dunany Point at the landfall location, may support breeding - impacts are limited to temporary disturbance (not unlike current disturbance impacts e.g., dog walkers and predation from small mammals).

Therefore, the potential for likely significant effects, can be excluded for the 16 SPAs within the ZoI of the Project for which this bird is designated (see Table 4-4).

Black-headed gull (*Chroicocephalus ridibundus*)

Black-headed gull is resident in Ireland and is a SCI of 11 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and Dundalk Bay SPA are the closest. The North-west Irish Sea intersects the offshore cable corridor whilst Dundalk Bay SPA is located 0.7 km west of the Project which supports nationally important populations of this gull. The remaining SPAs (see Table 4-4) are located >60 km from the Project.

Foraging

Black-headed gull mainly feed on insects especially in arable fields, as well as worms, fish and scraps. They will also exploit domestic and fisheries waste[2 3]. The maximum foraging range for this designated species, as described by Woodward *et al. (*2019), is 18.5 km. Consequently, there is a risk that SPA population (wintering) associated with the North-west Irish Sea and Dundalk Bay SPA will be present in the offshore wind farm area during the wintering season. The remaining SPAs (see Table 4-4) are located >18.5 km from the Project.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA and Dundalk Bay SPA (see Table 4-4)**.

Breeding

Black-headed gull mainly breed on major inland lakes where they will often nest in colonies but can also be found along the coast (e.g., sand dunes and beaches)[2,4]. Usually, black-headed gull nests on the ground in wetland areas, such as bogs and marshes and will also use man-made lakes. The largest colonies in Ireland are in Northern Ireland on Lough Neagh[2].

As the Project does not interfere with breeding locations in wetland areas (e.g., bogs and marshes), beaches or dune habitat associated with the SPAs listed in Table 4-4, no likely significant effects are predicted. Where ex-situ beach and dune habitat, such as Dunany Point at the landfall location, may support breeding, impacts are limited to temporary disturbance (not unlike current disturbance impacts e.g., dog walkers and predation from small mammals).

However, applying the precautionary principle, the potential for **likely significant effects, cannot be excluded for the 11 SPAs within the ZoI of the Project (see Table 4-4)** for which this bird is designated.

[3] Black-headed Gull (Larus ridibundus) movements. Available at: https://www.bto.org/ai/pdfs/232move.pdf.

[4] British Trust for Ornithology (BTO)- Understanding birds, species focus: Black-headed gull. Available at: https://www.bto.org/understanding-birds/species-focus/black-headed-gull.

Black-headed gull migration is variable, and they may migrate along coasts or inland (British Trust for Ornithology (BTO), 2007). As both residential and wintering migrants of this species migrate around the Irish coasts, a precautionary approach has been applied.

Therefore, the potential for **likely significant effects has been identified for the 11 SPAs within the ZoI of the Project (see Table 4-4)** for which this bird is designated.

Common gull (*Larus canus*)

Common gull is a SCI of 11 European sites identified within the ZoI of the Project. The North-west Irish Sea SPA and Dundalk Bay SPA are the closest. The North-west Irish Sea SPA intersects the offshore cable corridor whilst Dundalk Bay SPA is located 0.7 km west of the Project and supports nationally important populations of this wintering gull. The remaining SPAs are located >140 km from the Project (see Table 4-4).

Foraging

Common gull feed primarily on terrestrial and aquatic insects and invertebrates, fish and fisheries waste[5]. The maximum foraging range for this designated species as described by Woodward *et al.* (2019) is 50 km. Therefore, there is a risk that birds from the SPA wintering population associated with the North-west Irish Sea SPA and Dundalk Bay SPA will be present in the offshore wind farm area during the wintering season. The remaining SPAs (see Table 4-4) are located >50 km from the Project. Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA and Dundalk Bay SPA (see Table 4-4).**

Breeding

Common gull breeding population in Ireland is mainly in Connacht and Ulster. They nest on the ground on islands, cliffs and shingle banks. They breed on the coast, and inland in the west if Ireland, with most colonies in Galway, Mayo and Donegal.

As the Project does not interfere with breeding locations on offshore islands, shingle beaches and cliffs of the SPAs listed in Table 4-4, no likely significant effects are predicted. Where *ex-situ* shingle beach habitat, such as Dunany Point at the landfall location, may support breeding - impacts are limited to temporary disturbance (not unlike current disturbance impacts e.g., dog walkers and predation from small mammals).

Therefore, the potential for likely significant effects, can be excluded for the 11 SPAs within the ZoI of the Project for which this bird is designated (see Table 4-4).

Common tern (*Sterna hirundo*)

Common tern is a SCI of 18 European sites identified within the ZoI of the Project. The North-west Irish Sea SPA, Carlingford Lough SPA and Rockabill SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor), 7.4 km north and 26.9 km south of the Project. Rockabill SPA supports the largest population of this species in Ireland (1,940 pairs were recorded in 2010). The remaining SPAs (see Table 4-4) are located >45 km from the Project.

Foraging

Common tern forage in marine waters and inland lakes, feeding mainly on small fish, crustaceans, insects and occasionally squid (NPWS, 2013f). The maximum foraging range for this designated species as described by Woodward *et al.* (2019) is 30 km. Consequently, there is a risk that breeding birds from SPA populations designated as part of the North-west Irish Sea SPA (intersects the Project), Carlingford Lough SPA (located approximately 7.4 km north of the Project) and Rockabill SPA (located 26.9 km south of the Project) will be present in the offshore wind farm area during the breeding season. The remaining SPAs (see Table 4-4) are located >30 km from the Project.

[5] Birdwatch Ireland: Common Gull. Available at: https://birdwatchireland.ie/birds/common-gull/

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Carlingford Lough SPA and Rockabill SPA (see Table 4-4).**

Breeding

Irish breeding colonies of this species are limited to the islands of a few inland and coastal lakes and several important offshore islands. The most important mainland breeding colonies are located at Lady's Island Lake (Co. Wexford), Loughs Mask, Conn and Carra (Co. Mayo), Lough Corrib (Co. Galway), Lough Egish (Co. Monaghan) and Lough Derg in the midlands. Presently three colonies (Rockabill, Dublin Port and Lady's Island lake) support in excess of 3,000 pairs (McGuinness *et al.,* 2015).

Common tern nests on the ground either in solitary pairs or, more usually, colonially from April to October. Nests consist of a shallow depression on open ground near a vertical object to provide shelter and a landmark for chicks (McGuinness *et al.,* 2015). These are usually found on shingle spits, low rocky islets and sand dunes, though nesting on flat rock surfaces (including artificial concrete surfaces) has also been noted (McGuinness *et al.,* 2015).

There is a risk that breeding bird SPA populations designated as part of the North-west Irish Sea SPA, Carlingford Lough SPA and Rockabill SPA will be present in the offshore wind farm area during the breeding season.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Carlingford Lough SPA and Rockabill SPA (see Table 4-4)**.

Cormorant (*Phalacrocorax carbo*)

Cormorant is a SCI of 17 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA, Skerries Island SPA, Lambay Island SPA and Ireland's Eye SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor), 30.1 km, 40.4 km and 48.9 km south of the Project and. Skerries Islands SPA supports nationally important populations of this species (391 pairs) and is noted as high ornithological importance for cormorants (NPWS, 2009). The remaining SPAs (see Table 4-4), are located >100 km from the Project.

Foraging

Cormorant are generalist feeders with a diet consisting predominately of fish, as well as crustaceans, amphibians, molluscs and nestling birds[6]. Cormorants have a maximum foraging range of 35 km (Woodward *et al.,* 2019). Consequently, there is a risk that breeding birds from the SPA population associated with the North-west Irish Sea SPA (intersects the Project) and Skerries Island SPA (located 30.1 km south of the Project) will be present in the wind farm area during the breeding season. The remaining SPAs (see Table 4-4) are located >35 km from the Project.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA and Skerries Islands SPA (see Table 4-4)**.

Breeding

Cormorant breed in colonies around the coast of Ireland, with some breeding inland. The larger colonies in Ireland are located in the south and northwest coasts, as well as Dublin. Birds on the coast nest on cliffs whilst those inland often nest in trees. As the North-west Irish Sea SPA and Skerries Island SPA is within this species' foraging range of the Project, likely significant effects can occur.

Therefore, **the potential for likely significant effects, cannot be excluded for the North-west Irish Sea SPA and Skerries Island SPA** within the ZoI of the Project (see Table 4-4) for which this bird is designated.

[6] BirdLife International: Data Zone. Available at: http://datazone.birdlife.org/species/factsheet/great-cormorant-phalacrocorax-carbo/text

Fulmar (*Fulmarus glacialis*)

Fulmar is a SCI of 15 European sites identified within the ZoI of the Project (see Table 4-4). The closest SPAs, are the North-west Irish Sea SPA and Lambay Island SPA, located 0 km (i.e., intersects the offshore cable corridor) and 40.4 km south of the Project. The remaining SPA's (see Table 4-4) are located at distances between 144.1 km and 450.5 km from the Project.

Foraging

Fulmar have a very varied diet, including fish, discards from trawlers, crustaceans and whale flesh[7]. Fulmars have a mean maximum foraging range of 542 km (Woodward *et al.,* 2019). Therefore, there is potential for connectivity between the 15 SPAs and the Project for this feature and a risk that fulmar from these SPAs will be present in the offshore wind farm area. However, this species flies close to the sea surface and is not considered at risk of displacement or barrier effects. This species is also considered to have low sensitivity to human activity due to its wide foraging range. This is particularly apparent for those more distant SPAs where impact extent and frequency associated with the Project area unlikely to result in an LSE.

On this basis, likely significant effects upon this foraging SCI species can be excluded for the 15 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Fulmar mainly breed on sea cliffs, but will also nest on level ground, on buildings, and in burrows and crevasses. There is a risk that breeding birds from 13 SPAs (see Table 4-4) will be present in the offshore wind farm area during the breeding season. The Iveragh Peninsula SPA and Skelligs SPA are located beyond the foraging range for fulmar via marine pathway (i.e., 350 km via coast line) and has therefore been excluded from further assessment.

Therefore, the potential for **likely significant effects has been identified for 13 SPAs (see Table 4-4).**

Gannet (*Morus bassanus*)

Gannet is a SCI of seven European sites identified within the ZoI of the Project (see Table 4-4). The closest SPA, Seas off Wexford SPA is located 144.1 km south of the Project. The remaining SPAs (see Table 4-4) are located at distances between 153.8 km and 450.5 km from the Project.

Foraging

Gannet forage over shallow, continental shelf-waters, feeding predominately on schooling fish such as mackerel and herring species[8]. Gannet mean maximum (plus standard deviation) foraging range is 509.2 km (Woodward *et al.,* 2019). Consequently, there is a risk that foraging birds from the SPA populations associated with Saltee Islands SPA, Grassholm SPA, Ailsa Craig SPA and Seas off Wexford SPA will be present in the offshore wind farm area, as they are all located within 509.2 km of the Project. In relation to the Skelligs SPA, The Bull and the Cow Rocks SPA and St Kilda SPA, these sites are located beyond this foraging range via marine pathway.

Therefore, the potential for **likely significant effects has been identified for four SPAs (see Table 4-4)**.

Breeding

Gannet breed in colonies on islands off the coast. The main Gannet colonies are located on Great Saltee, Co. Wexford, the Bull Rock, Co. Cork and on Little Skellig in Co. Kerry. A small colony is also found on Irelands Eye, Co. Dublin. There is a risk that breeding birds from Ailsa Craig SPA, Saltee Islands SPA, Seas off Wexford SPA and Grassholm SPA could present in the offshore wind farm area during the breeding season.

[7] Birdwatch Ireland: Fulmar. Available at: https://birdwatchireland.ie/birds/fulmar/

[8] University of Michigan Museum of Zoology. Animal Diversity Web. Available at: https://animaldiversity.org/accounts/Morus_bassanus/

Therefore, the potential for **likely significant effects has been identified for four SPAs (see Table 4-4).**

Great black-backed gull (*Larus marinus*)

Great black-backed gull is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4), the North-west Irish Sea SPA and the Isles of Scilly SPA. The North-west Irish Sea SPA intersects the offshore cable corridor, and the Isles of Scilly SPA is located 428.2 km from the Project.

Foraging

Great black-backed gull feed on fish, commercial fishing waste, offal and other birds including auks at colonies in the breeding season[9]. Great black-backed gull have a maximum foraging range of 73 km (Woodward *et al.,* 2019). Therefore, there is no connectivity from the SPA population designated as part of the Isles of Scilly SPA which is >73 km (428.2 km) from the Project. However, there is potential for the population associated with the North-west Irish Sea SPA to occur within the offshore wind farm area.

Therefore, the potential for **likely significant effects, cannot be excluded for the North-west Irish Sea SPA** (see Table 4-4).

Breeding

Great black-backed gull breed on the ground in colonies all around the coast of Ireland. Most colonies are on well-vegetated offshore islands, or in other areas difficult of access, making the species to census. A few birds breed inland where they associate with freshwater lakes in Co. Mayo and Co. Galway.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the North-west Irish Sea SPA and the Isles of Scilly SPA (see Table 4-4).

Great northern diver (*Gavia immer)*

Great Northern Diver is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4), the North-west Irish Sea SPA and Blacksod Bay/Broad Haven SPA. The North-west Irish Sea SPA intersects the offshore cable corridor, and the Blacksod Bay/Broad Haven SPA is located 215.6 km from the Project.

Foraging

The Great Northern Diver is a widespread winter visitor to coastal areas from September to April, feeding in coastal waters, bays and inlets. Their diet consists mostly of fish, but they also feed on crustaceans, molluscs, annelids, insects and amphibians. Great Northern Diver can forage up to 10 km offshore and numbers close to shore tend to be highest when winds blow onshore[10]. Therefore, there is potential for connectivity with the SPA population designated as part of the North-west Irish Sea SPA (intersects the offshore cable corridor) during the breeding season.

On this basis, **likely significant effects upon this SCI species cannot be excluded at the screening stage for the North-west Irish Sea SPA** (see Table 4-4) for which this bird is designated.

Breeding

Great Northern Diver do not breed in Ireland. The closest breeding birds are in Iceland and the breeding distribution spreads east through Greenland to North America.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

[9] Birdwatch Ireland: Great Black-backed Gull. Available at: https://birdwatchireland.ie/birds/great-black-backed-gull/

[10] Birdwatch Ireland: Great Northern Diver. Available at: https://birdwatchireland.ie/birds/great-northern-diver/

Great skua (*Catharacta skua*)

Great skua is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), St Kilda SPA. The St Kilda SPA is located 448.6 km from the Project.

Foraging

Great skua feed predominately on fish, either taken from other birds, from the sea or from behind trawlers[11]. The mean maximum (plus standard deviation) foraging range for this designated species as described by Woodward *et al. (*2019) is 931.2 km. Therefore, there is potential for connectivity between St Kilda SPA and the Project for this species and a risk that birds from the SPA breeding population associated with St Kilda SPA (located 448.6 km from the Project) will be present in the offshore wind farm area during the breeding season.

Therefore, the potential for **likely significant effects has been identified for St Kilda SPA (see Table 4-4).**

Breeding

Only one or two pairs breed in Ireland[2]. They breed on a number of uninhabited islands off the west coast. The species form loose colonies on coastal moor land, usually associated with seabird colonies, from which they gain an important component of their food.

As the Project does not interfere with breeding locations on offshore islands associated with the SPA listed in Table 4 5, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the nine SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Guillemot (*Uria aalge*)

Guillemot is a SCI of 17 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA, Lambay Island SPA and Ireland's Eye SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor), 40.4 km and 48.9 km south of the Project, with Lambay Island SPA supporting the largest population of the species in Ireland. The remaining SPAs (see Table 4-4), are located >100 km from the Project.

Foraging

Guillemot feed mainly on small fish and some invertebrates, caught by surface diving[12]. Guillemots have a mean maximum foraging range plus one standard deviation of 157 km (Woodward *et al.,* 2019), therefore there is potential for connectivity and for birds from the SPA populations associated with the North-west Irish Sea SPA (intersects the Project), Lambay Island SPA (located 40.4 km south of the Project), Ireland's Eye SPA (located 48.9 km south of the Project), Seas off Wexford (located 144.1 km south of the Project) and Rathlin Island SPA (located 145.4 km north of the Project) to be present in the offshore wind farm area during the breeding season. The remaining SPAs (see Table 4-4) are located >157 km from the Project. Additionally, in relation to the Seas off Wexford SPA, colonies of Guillemot are associated with the Saltee Islands SPA which has been excluded from further assessment. Guillemots fly close to the sea surface and hence have very low risks of collision; however, the species may be subject to displacement and barrier effects.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Lambay Island SPA, Ireland's Eye SPA and Rathlin Island SPA (see Table 4-4).**

Breeding

Guillemot nest on cliff ledges, often in large colonies. They are restricted to cliffs with suitable ledges.

[11] Birdwatch Ireland: Great Skua. Available at https://birdwatchireland.ie/birds/great-skua/

[12] Birdwatch Ireland: Guillemot. Available at https://birdwatchireland.ie/birds/guillemot

As the Project does not interfere with breeding locations on the offshore islands associated with the North-west Irish Sea SPA, Ireland's Eye SPA, Lambay Island SPA, Seas off Wexford SPA and Rathlin Island SPA listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the 17 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Eider (*Somateria mollissima*)

Eider is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), Lough Foyle SPA. The Lough Foyle SPA is located 136.7 km from the Project.

Foraging

Eider generally feed by diving in waters up to 20 m depth, feeding predominantly on mussels, other molluscs, crustaceans and echinoderms[13]. The maximum foraging range for this designated species as described by Woodward *et al.* (2019) is 22 km. Therefore, there is no potential for connectivity for this species with the Project or for birds from the SPA wintering population designated as part of the Lough Foyle SPA (located 136.7 km from the Project) during the wintering season. The Lough Foyle SPA (see Table 4-4) is located >22 km from the Project.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the Lough Foyle SPA (see Table 4-4) for which this bird is designated.

Breeding

Eider nest colonially on offshore islets, along low-lying coast, usually where the threat of mammalian predation is minimal. Eider seldom occurs far from the sea throughout the year. They breed around the coast of Scotland and northern England and along the north and northwest coasts of Ireland. Up to 100 pairs have been estimated in Ireland.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Herring gull (*Larus argentatus*)

Herring gull is a SCI of 20 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA, Dundalk Bay SPA and the River Nanny Estuary and Shore SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor), 0.7 km west and 16.6 km southwest of the Project, with Dundalk Bay SPA supporting nationally important populations of this wintering gull. The remaining SPAs (see Table 4-4), are located >30 km from the Project.

Foraging

Herring gulls are both predators and scavengers, often feeding on the coast and following fishing boats, as well as foraging on landfill sites[14]. Herring gulls have a maximum foraging range of 92 km (Woodward *et al.,* 2019) and a proportion of flight time is spent at rotor height; therefore, there is potential for connectivity with the Project and a risk that birds from the SPA populations associated with the North-west Irish Sea SPA, Dundalk Bay SPA, River Nanny Estuary and Shore SPA, Skerries Island SPA, Lambay Island SPA, Ireland's Eye SPA will be present in the offshore wind farm area. In relation to the Murrough SPA, this wintering population is very unlikely to occur within the wind farm area as birds tend to use the wintering habitat within the SPA. The remaining SPAs (see Table 4-4) are located >92 km from the Project.

[13] Birdwatch Ireland: Eider. Available at https://birdwatchireland.ie/birds/eider

[14] Birdwatch Ireland: Herring Gull. Available at: https://birdwatchireland.ie/birds/herring-gull/

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Dundalk Bay SPA, River Nanny Estuary and Shore SPA, Skerries Island SPA, Lambay Island SPA and Ireland's Eye SPA (see Table 4-4).**

Breeding

Herring gull breed in colonies around the coast of Ireland and also inland in Co. Donegal and Co. Galway. The biggest colony in Ireland is on Lambay Island off Co. Dublin with over 1,800 nests.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the 20 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Kittiwake (*Rissa tridactyla*)

Kittiwake is a SCI of 22 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA, Lambay Island SPA, Howth Head Coast SPA and Ireland's Eye SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor), 40.4 km, 51.6 km and 48.9 km south of the Project, with Lambay Island SPA supporting 3,947 pairs (recorded in 2004) (NPWS, 2011e). The remaining SPAs (see Table 4-4) are located >95 km from the Project.

Foraging

Kittiwake feed mainly on fish, waste from commercial fishing and invertebrates[15]. Kittiwake have a mean maximum (plus standard deviation) foraging range of 300.5 km (Woodward *et al.,* 2019), therefore there is potential for connectivity for this species between the Project and the North-west Irish Sea SPA, Lambay Island SPA, Howth Head Coast SPA, Ireland's Eye SPA, Wicklow Head SPA, Ailsa Craig SPA, Rathlin Island SPA, Horn Head to Fanad Head SPA, Saltee Islands SPA, Helvick Head to Ballyquin SPA, North Colonsay, Seas of Wexford SPA and Western Cliffs SPA (UK9003171) and Old Head of Kinsale SPA, which are all located within 300.5 km of the Project. There is a risk that breeding birds from these twelve SPAs will be present in the offshore wind farm area during the breeding season. In relation to Aughris Head SPA and West Donegal Coast SPA, these wintering populations are very unlikely to occur within the wind farm area as birds tend to use the wintering habitat within the SPA. In relation to Old Head of Kinsale SPA, this site is located beyond this foraging range via marine pathway. The remaining SPAs (see Table 4-4) are located >300.5 km from the Project.

Therefore, the potential for **likely significant effects has been identified for 12 SPAs (see Table 4-4)**.

Breeding

Kittiwake breed on steep sea cliffs where it builds a nesting platform on the most vertical and sometimes improbably steep areas. They will occasionally use man-made structures such as old buildings, for example in Dunmore East, Co. Waterford.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the 22 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Leach's petrel (*Oceanodroma leucorhoa*)

Leach's petrel is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), St Kilda SPA. The St Kilda SPA is located 448.6 km from the Project.

[15] Birdwatch Ireland: Kittiwake. Available at: https://birdwatchireland.ie/birds/black-legged-kittiwake/

Foraging

Leach's petrel forage in the sea, feeding on small fish, plankton, molluscs and crustaceans. Those that breed in Ireland feed well offshore at the continental shelf edge[16]. Leach's petrel are thought to forage within 200 km of their colony during the breeding season (Ricklefs and Schew 1994, Huntington *et al.,* 1996, Thaxter *et al.,* 2012). Therefore, there is evidence to suggest lack of connectivity for this species or for breeding birds from the SPA population designated as part of St Kilda SPA (located >200 km from the Project) to be present in the offshore wind farm area during the breeding season.

It is therefore appropriate to consider that a likely significant effect upon this SCI species can be excluded at the screening stage for St Kilda SPA (see Table 4-4) for which this bird is designated.

Breeding

Breeding only confirmed from one location in Ireland, The Stags of Broadhaven, a group of small islands off the north Mayo coast. The Project does not interfere with this known breeding location and there are no known breeding locations within range associated with the SPA listed in Table 4-4.

Therefore, the potential for likely significant effects, can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Lesser black-backed gull (*Larus fuscus*)

Lesser black-backed gull is a SCI of 14 European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and Lambay Island SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor) and 40.4 km south of the Project.The remaining SPAs (see Table 4-4) are located >140 km from the Project.

Foraging

Lesser black-backed gull have a varied diet including fish, waste from fisheries, rubbish from landfill sites, insects in flight, young birds and food from other birds[17]. Lesser black-backed gulls have a mean maximum (plus standard deviation) foraging range of 236 km (Woodward *et al.,* 2019). Therefore, there is potential for connectivity for this species between the Project and the North-west Irish Sea SPA, Lambay Island SPA, Wexford Harbour and Slobs SPA, Ailsa Craig SPA, Saltee Islands SPA, Morecambe Bay and Duddon Estuary SPA, Ribble and Alt Estuaries SPA, Seas off Wexford SPA, Inishbofin, Inishdooey and Inishbeg SPA and Ballymacoda Bay SPA, which are all located within 236 km of the Project. In relation to Inishbofin, Inishdooey and Inishbeg SPA, and Ballymacoda Bay SPA, these sites are located beyond this foraging range via marine pathway. In relation to Wexford Harbour and Slobs SPA, wintering populations are very unlikely to occur within the wind farm area as birds tends to use the wintering habitat within the SPA.

There is a risk that breeding birds from these seven SPAs will be present in the offshore wind farm area during the breeding season. A proportion of flight time for this species is also spent at rotor height so there is potential for collision risk effects. This species is not considered at risk of displacement or barrier effects. The remaining SPAs (see Table 4-4) are located >236 km from the Project.

Therefore, the potential for **likely significant effects has been identified for seven SPAs (see Table 4-4).**

Breeding

Lesser black-backed gull breed colonially, often with other gull species especially herring gull. They nest on the ground. They will use a variety of sites, including offshore islands, islands in inland lakes, sand dunes and coastal cliffs. Small numbers also nest on roof tops in Co. Dublin. Most colonies in Ireland are on the coast, mostly on the west coast. Most inland colonies are found in Co. Mayo and in Co. Donegal.

[16] Birdwatch Ireland: Leach's Petrel. Available at: https://birdwatchireland.ie/birds/leachs-petrel/

[17] Birdwatch Ireland: Lesser Black-backed Gull. Available at: https://birdwatchireland.ie/birds/lesser-black-backed-gull/

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the 14 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Little gull (*Larus minutus*)

Little gull is a SCI of three European sites identified within the ZoI of the Project (see Table 4-4), the North-west Irish Sea SPA, Liverpool Bay SPA and Mersey Narrows and North Wirral Foreshore SPA, located 0 km (i.e. intersects the offshore cable corridor), 127.7 km and 194.7 km from the Project, respectively.

Foraging

Little gull feeds on small fish, crabs and other invertebrates, primarily off the surface of the sea and less frequently lakes and ponds[18]. Limited information is available about the specific habitat preferences of little gull, particularly offshore (NE, 2012). The maximum foraging range of little gull is unknown, therefore foraging ranges of bird species within the same gull family are used for comparison. As described by Woodward *et al. (*2019), the maximum foraging range of kittiwake is 300.5 km. Given the lack of information available on foraging ranges for little gull, a presumed maximum foraging range of 300.5 km has been adopted as a precautionary approach. Consequently, there is potential for connectivity for this species between the Project and the North-west Irish Sea SPA, Liverpool Bay SPA (located 127.7 km from the Project) and Mersey Narrows and North Wirral Foreshore SPA (located 194.7 km from the Project). There is a risk that birds from the SPA wintering populations associated with both SPAs will be present in the wind farm area during the wintering season.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Liverpool Bay SPA and Mersey Narrows and North Wirral Foreshore SPA (see Table 4-4).**

Breeding

Little gull do not breed in Ireland. They breed colonially in marshes in Scandinavia and Eastern Europe.

Therefore, the potential for likely significant effects, can be excluded for the three SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Little tern (*Sterna albifrons*)

Little tern is a SCI of ten European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and the Boyne Estuary SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor) and 10.2 km southwest of the Project. The Boyne Estuary SPA supports a nationally important breeding population of this species (35 pairs were recorded in 2018). The remaining SPAs (see Table 4-4), are located > 80 km from the Project.

Foraging

Little tern feed just offshore, hovering above the water before diving in to catch its prey of small fish[19]. The maximum foraging range for this designated species as described by Woodward *et al.* (2019) is 5 km. There is foraging connectivity for this species with the North-west Irish Sea SPA for which this bird is designated.

Therefore, the potential for **likely significant effects, cannot be excluded for the North-west Irish Sea SPA** within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Little tern nest colonially on the ground on shingle beaches, making them very vulnerable to poor weather and ground predators. Only a few colonies are found in Ireland, with the majority breeding in Counties Louth,

[18] Birdwatch Ireland: Little Gull. Available at: https://birdwatchireland.ie/birds/little-gull/

[19] The Wildlife Trusts. Little Tern. Available at: https://www.wildlifetrusts.org/wildlife-explorer/birds/seabirds/little-tern

Wicklow and Wexford. Where ex-situ shingle beach habitat, such as Dunany Point at the landfall location, may support breeding - impacts are limited to temporary disturbance (not unlike current disturbance impacts e.g., dog walkers and predation from small mammals).

Therefore, the potential for likely significant effects, can be excluded for the ten SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Manx shearwater (*Puffinus puffinus*)

Manx shearwater is a SCI of ten European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and the Irish Sea Front SPA are the closest site, located 0 km (i.e., intersects the offshore cable corridor) and 56.9 km east of the Project. The site is known to regularly support a population of European importance of Manx shearwaters. The remaining SPAs (see Table 4-4), are located >110 km from the Project.

Foraging

Manx shearwater feed on small fish, plankton, molluscs and crustaceans, taken from the sea by diving[20]. Manx shearwaters cover large distances whilst foraging (mean maximum (plus standard deviation) foraging range is 2,364 km) (Woodward *et al.,* 2019) and migrating, and tend to fly close to the sea surface. Therefore, there is potential for connectivity for this species between the Project and the ten SPAs for which this species is designated, which are all located within 450.5 km of the Project. There is a risk that foraging birds from these SPAs will be present in the offshore wind farm area during the breeding season.

Therefore, the potential for **likely significant effects has been identified for ten SPAs (see Table 4-4).**

Breeding

Manx shearwater mostly breed on uninhabited offshore islands, largely free from mammalian predators, often in huge numbers. They breed underground in burrows and will only return to colonies on dark, moonless nights. In Ireland, the largest colonies are found in Co. Kerry, with the Blasket Islands having the greatest numbers. Colonies are also found on the east coast, on the Saltees off Co. Wexford and Copeland Island, Co. Down.

As the Project does not interfere with breeding locations on offshore islands associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the ten SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Mediterranean gull (*Larus melanocephalus*)

Mediterranean gull is a SCI of two European site identified within the ZoI of the Project (see Table 4-4), Morecambe Bay and Duddon Estuary SPA and Seas off Wexford SPA. These sites are located 170.8 km and 144.1 km, respectively from the Project.

Foraging

Mediterranean gull feeds on terrestrial and aquatic insects, marine molluscs and fish[21]. The maximum foraging range for this designated species as described by Woodward *et al. (*2019) is 20 km. Therefore, there is no potential for connectivity for this species from the SPA population designated as part of Morecambe Bay and Duddon Estuary SPA (located 170.8 km from the Project) and Seas off Wexford SPA (located 144.1 km from the Project) to be present in the wind farm area during the wintering season.

[20] Birdwatch Ireland: Little Gull. Available at: https://birdwatchireland.ie/birds/manx-shearwater/

[21] Birdwatch Ireland: Mediterranean Gull. Available at: https://birdwatchireland.ie/birds/mediterranean-gull/

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Mediterranean gull prefer low lying islands near the coast on which to breed. Only two or three pairs breed but this is likely to increase with more and more birds seen in suitable habitat in the breeding season. Regularly breeds, at Our Lady's Island Lake in Co. Wexford, along with other nesting seabirds, including black-headed gulls, with which it is often associated. The bulk of the population of this species breeds in Eastern Europe, with small colonies in western regions.

As the Project does not interfere with breeding locations on offshore islands associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the two SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Puffin (*Fratercula arctica*)

Puffin is a SCI of twelve European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA, Lambay Island SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor) and 40.4 km south of the Project. The remaining SPAs (see Table 4-4) are located >140 km from the Project.

Foraging

Puffin are a highly marine species that feed on marine fish and crustaceans[22]. Puffins have a mean maximum (plus standard deviation) foraging range of 265 km (Woodward *et al.,* 2019). Consequently, there is potential for connectivity for this species between the Project and the North-west Irish Sea SPA, Seas off Wexford SPA, Lambay Island SPA, Saltee Islands SPA and Skomer, Skokholm and the Seas off Pembrokeshire SPA. In relation to Tory Island SPA, this site is located beyond this foraging range via marine pathway. The remaining SPAs (see Table 4-4) are located >265 km from the Project.

There is a risk that birds from the SPA breeding populations associated with these SPAs to be present in the offshore wind farm area.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Seas off Wexford SPA, Lambay Island SPA, Saltee Islands SPA and Skomer, Skokholm and the Seas off Pembrokeshire SPA (see Table 4-4)**.

Breeding

Puffin nest in colonies in burrows, or sometimes in boulder screes and in cracks in steep cliffs, rather like razorbills and black guillemots. They will utilize rabbit burrows and will evict rabbits. Usually nests in areas that are safe from mammalian predators, for which reason it prefers offshore islands.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the twelve SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Razorbill (*Alca torda*)

Razorbill is a SCI of twelve European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA, Lambay Island SPA and Ireland's Eye SPA are the closest, located 0 km (i.e., intersects

[22] Birdwatch Ireland: Puffin. Available at: https://birdwatchireland.ie/birds/puffin

the offshore cable corridor), 40.4 km and 48.9 km south of the Project. The remaining SPAs (see Table 4-4) are located >140 km from the Project.

Foraging

Razorbill feed primarily on small fish and some invertebrates, caught by surface diving[23]. Razorbills have a mean maximum (plus standard deviation) foraging range of 164.9 km (Woodward *et al.,* 2019), and therefore there is potential for connectivity for this species between the Project offshore elements and seven SPAs, namely the North-west Irish Sea SPA, Lambay Island SPA, Ireland's Eye SPA, Seas off Wexford SPA, West Donegal Coast SPA, Horn Head to Fanad Head SPA and Rathlin Island SPA. In relation to West Donegal Coast SPA and Horn Head to Fanad Head SPA, these sites are located beyond this foraging range via marine pathway (i.e., >350 km via coast line) and have therefore been excluded from further assessment. Additionally, in relation to the Seas off Wexford SPA, colonies of Razorbill are associated with the Saltee Islands SPA which is located beyond the foraging range for razorbill. There is a risk that birds from the SPA populations associated with these four SPAs will be present in the offshore wind farm area. The remaining SPAs (see Table 4-4) are located >164.9 km from the Project.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, Lambay Island SPA, Ireland's Eye SPA and Rathlin Island SPA (see Table 4-4)**.

Breeding

Razorbill nest on sea cliffs. Similar in habits to Guillemot with which it will breed in mixed colonies. They use more secluded nest sites, fissures in the cliffs and also in screes, where it is more difficult to see, except when birds stand outside of their nest sites.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the twelve SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Red-throated diver (*Gavia stellata*)

Red-throated diver is a SCI of eight European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and the Murrough SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor) and 82.7 km south of the Project. The remaining sites (see Table 4-4) are located >100 km from the Project.

Foraging

Red-throated diver feed primarily on small fish such as sprats, sand eels, codling and flatfish, but they may also consume fish spawn, frogs, shrimps, molluscs, water insects and annelids[24]. The maximum foraging range for this species during the breeding season is 13.5 km; however, the range is generally less than 8 km (NatureScot, 2016). Therefore, there is potential for connectivity for this species associated with the North-west Irish Sea SPA to occur within the offshore wind farm area.

Therefore, the potential for **likely significant effects, cannot be excluded for the North-west Irish Sea SPA** within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

The northwest of Ireland represents the southern-most extent of its breeding range in the western Palearctic (Cromie, 2002). This species is present in Donegal, in a very limited number of inland lakes. Most recent survey work estimates that this species is present at only seven breeding lakes (McLoughlin and Beaubier 2009), with at most six breeding sites being active at these lakes. Current estimates of red-throated diver

[23] Birdwatch Ireland: Razorbill. Available at: https://birdwatchireland.ie/birds/razorbill/

[24] Birdwatch Ireland: Red-throated diver. Available at: https://birdwatchireland.ie/birds/red-throated-diver/

populations lie at between four and six breeding pairs in its Irish distribution (McLoughlin and Beaubier 2009; Wheeldon 2012). In Ireland, red-throated divers breed on small freshwater loughs in Donegal. Uninterrupted flight path to the sea has been identified as a crucial breeding site selection criterion of these birds (Cromie 2002).

As the Project does not interfere with breeding locations on freshwater loughs associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the eight SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Roseate tern (*Sterna dougallii*)

Roseate tern is a SCI of eight European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and Rockabill SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor) and 26.9 km south of the Project and supports internationally important breeding populations of the species (1,093 pairs were recorded in 2010). The remaining SPAs (see Table 4-4), are located > 50 km from the Project.

Foraging

Roseate tern forage in marine waters, feeding chiefly on fish[25]. The maximum foraging range for this designated species as described by Woodward *et al. (*2019) is 24 km. Therefore, there is potential for connectivity between the SPA population associated with the North-west Irish Sea SPA. The remaining six SPAs (see Table 4-4) are located >24 km from the Project, beyond the foraging range of this species.

Therefore, the potential for **likely significant effects, cannot be excluded for the North-west Irish Sea SPA** within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Roseate tern nest colonially on the ground. They are restricted to two main colonies in Ireland, one on the island of Rockabill, off Skerries, Co. Dublin and one at Lady's Island, near Rosslare, in Co. Wexford. Birds have bred at other sites recently, for example on Dalkey Island, Co. Dublin and on the Blasket Islands Co. Kerry. Rockabill holds the most important colony in Europe with up to 1,200 pairs of birds. The colony at Lady's Island is much smaller with around a hundred pairs.

As the Project does not interfere with breeding locations on the offshore islands associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the eight SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Sandwich tern (*Sterna sandvicensis*)

Sandwich tern is a SCI of ten European Sites identified within the ZoI of the Project (see Table 4-4). Carlingford Lough SPA and Strangford Lough SPA are the closest, located 7.4 km and 49.5 km north of the Project. The remaining SPAs (see Table 4-4), are located >100 km from the Project.

Foraging

Sandwich tern feed primarily on surface dwelling marine fish, caught from shallow dives[26]. The maximum foraging range for this species as described by Woodward *et al.* (2019) is 80 km. Therefore, there is potential for connectivity between the Project and Carlingford Lough SPA (located 7.4 km north of the Project) and Strangford Lough SPA (located 49.4 km northwest of the Project). There is a risk that birds from the SPA

[25] Birdwatch Ireland: Roseate Tern. Available at: https://birdwatchireland.ie/birds/roseate-tern/

[26] Birdwatch Ireland: Sandwich Tern. Available at: https://birdwatchireland.ie/birds/sandwich-tern/

populations associated with Strangford Lough SPA and Carlingford Lough SPA will be present in the offshore wind farm area. The remaining SPAs (see Table 4-4) are located >80 km from the Project.

Therefore, the potential for **likely significant effects has been identified for Carlingford Lough SPA and Strangford Lough SPA (see Table 4-4).**

Breeding

Sandwich tern breed at a few main sites, notably a large breeding colony of over a thousand pairs at Lady's Island Lake, near Rosslare in Co. Wexford. Additional breeding colonies are present at Carrowmore Lake, Co. Mayo, Salt Lake near Clifton, Co. Galway and Inch and Mulroy Bays in Co. Donegal. A limited number of birds also breed in Galway Bay and Strangford Lough. Sandwich Tern are ground-nesters, and nests comprise a shallow scrape on raised non-vegetated sand, gravel or shingle and are usually congregated in dense breeding colonies (McGuiness *et al.,* 2015).

The limited availability of suitably undisturbed habitat is critical to the maintenance of the species' Irish population. Given the acute sensitivity of this species' breeding colonies to disturbance and habitat loss and their strong tendency to abandon nests or entire colonies (Bourne and Smith 1974), construction of wind infrastructure is likely to exert significant pressure on these sites. Conversely, sandwich terns have been known to nest as close as 50 m from the base of turbines in other studies, suggesting that once in place the disturbance effect is minimal (Everaert and Stienen 2007).

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects can occur.

Therefore, the potential for likely significant effects, can be excluded for the ten SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Shag (*Phalacrocorax aristotelis*)

Shag is a SCI of 17 European sites identified within the ZoI of the Project (see Table 4-4). The closest SPAs are the North-west Irish Sea SPA, Skerries Island SPA and Lambay Island SPA, located 0 km (i.e., intersects the offshore cable corridor), 30.1 km and 40.4 km south of the Project respectively. The remaining SPAs (see Table 4-4) are all located > 140 km from the Project.

Foraging

Shag feed on a wide range of small fish, taken from just below the ocean surface[27]. The maximum foraging range for shag is 46 km (Woodward *et al.,* 2019). Therefore, there is potential connectivity between the Project and the North-west Irish Sea SPA (intersects the Project), Skerries Island SPA (located 30.1 km south of the Project) and Lambay Island SPA (located 40.4 km south of the Project). There is a risk that birds from these SPAs will occur within the offshore wind farm area. Shag have also been shown to be at risk of collision (Cook *et al.,* 2012). The remaining SPAs (see Table 4-4) are located >46 km from the Project.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA, SPA Skerries Island SPA and Lambay Island SPA (see Table 4-4).**

Breeding

Shag breed all around the coast of Ireland wherever suitable cliffs exist. Nests on ledges, in crevices, in caves or under boulders. They are a colonial nester in loose colonies with prolonged breeding season. They are more plentiful on the west and south coasts but with notable concentrations in Co. Dublin.

As the Project does not interfere with breeding locations in coastal areas associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

[27] Birdwatch Ireland: Shag. Available at: https://birdwatchireland.ie/birds/european-shag/

Therefore, the potential for likely significant effects, can be excluded for the 17 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Storm petrel (*Hydrobates pelagicus*)

Storm Petrel is a SCI of eight European sites identified within the ZoI of the Project. The Skomer, Skokholm and the Seas off Pembrokeshire SPA is the closest, located 236.9 km from the Project. The remaining SPAs for which this species is designated are located > 238 km from the Project.

Foraging

Storm petrel feed on small fish, plankton, molluscs and crustaceans taken from the sea[28]. The mean foraging range for this species is 336 km (Woodward *et al.,* 2019). Therefore, there is potential connectivity for this species between the Project and Skomer, Skokholm and the Seas off Pembrokeshire SPA (located 236.9 km from the Project) Duvillaun Islands SPA (located 238.2 km from the Project) and Inishglora and Inishkeeragh SPA (located 239.2 km from the Project). There is a risk that breeding birds from these SPAs will be present in the offshore wind farm area during the breeding season. The remaining SPAs (see Table 4-4) are located >336 km from the Project.

Therefore, the potential for **likely significant effects has been identified for Skomer, Skokholm and the Seas off Pembrokeshire SPA, Duvillaun Islands SPA and Inishglora and Inishkeeragh SPA (see Table 4-4).**

Breeding

Storm petrel breed in colonies on islands off the west coast. Found from Co. Cork to Co. Donegal. A difficult species to survey as it only returns to its nest site after dark which is concealed under vegetation, in boulder fields and in old buildings and walls. The great bulk of the population is found in Co. Kerry with the Skelligs and the Blaskets having huge colonies. The largest colony surveyed in the world to date is on a Inishtooskert, in the Blaskets, a small uninhabited island easily visible from the mainland.

As the Project does not interfere with breeding locations on offshore islands associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the eight SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

4.4.7.2 Shorebirds, waders, and wildfowl populations of intertidal SPAs

Shorebirds, waders and wildfowl are potentially at risk from the construction, operational and maintenance, and decommissioning phases of the Project. Potential impact(s) include:

- Disturbance from noise, vibration, lighting and human presence.

The following species of SCI birds are a feature of SPAs considered within the potential ZoI the Project (see Table 4-4 for SCI shorebirds, waders and wildfowl and their relevant SPAs).

Bar-tailed godwit (*Limosa lapponica*)

Bar-tailed godwit winters in Ireland and is a SCI of 11 European sites identified within the ZoI of the Project (see Table 4-4). Dundalk Bay SPA is the closest, located 0.7 km from the Project. The remaining SPA's (see Table 4-4) are located > 60 km from the Project.

Foraging

The bar-tailed godwit is almost entirely a species of coastal habitats in winter in Ireland, specifically estuaries, intertidal sands and mudflats, feeding mostly on worms and molluscs[2]. Not known to forage far from the shoreline, bar-tailed godwit feeds along the tidal edge or in shallow water (up to 15 cm depth)[2]. The

[28] Birdwatch Ireland: Storm Petrel. Available at: https://birdwatchireland.ie/birds/storm-petrel

maximum foraging range of bar-tailed godwit is unknown, therefore foraging ranges of similar waders are used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for bar-tailed godwit as a precautionary approach. As such, there is a risk of birds from the wintering population associated with Dundalk Bay SPA (located 0.7 km from the Project) being present within the area of the Project (i.e., the landfall location) during the wintering season.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4)**.

Breeding

Bar-tailed godwit do not breed in Ireland. They breed in northern Norway, Finland and further to the north and east.

Therefore, the potential for likely significant effects, can be excluded for the 11 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Barnacle goose (*Branta leucopsis*)

Barnacle goose is a SCI of 12 European sites identified within the ZoI of the Project (see Table 4-4). Ardboline Island and Horse Island SPA is the closest, located 151.1 km northwest of the Project.

Foraging

Barnacle geese are mainly herbivorous, feeding on grasses and sedges on the tundra during the breeding season, and on coastal pastures during the winter[29]. The maximum foraging range during winter season for this designated species is 25 km (NatureScot, 2016). Therefore, there is no potential for connectivity between the Project and the 12 SPAs for which this species is designated, as they are all located outside the maximum foraging range.

Therefore, the potential for likely significant effects, can be excluded for the 12 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Barnacle goose do not breed in Ireland. They breed in Greenland, Siberia, and in increasing numbers around the Baltic Sea.

Therefore, the potential for likely significant effects, can be excluded for the 12 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Black-tailed godwit (*Limosa limosa*)

Black-tailed Godwit is a SCI of seven European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA and Boyne Estuary SPA are the closest, located 0.7 km and 10.2 km from the Project. The remaining SPAs (see Table 4-4) are located between 150.1 km and 234.1 km from the Project.

Foraging

Black-tailed godwit feed on a range of invertebrates, including bivalves, polychaete worms and shore crabs. They prefer to feed on muddier estuaries, but also feed in brackish pools and on nearby rough pasture. While on pasture, they feed on crane fly larvae and amphipods[30]. This is a wading species with preference for shallow water and shoreline habitats, however the maximum foraging range of black-tailed godwit is unknown, so foraging ranges of similar waders are used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of

[29] Birdwatch Ireland: Barnacle Goose. Available at: https://birdwatchireland.ie/birds/barnacle-goose/

[30] Birdwatch Ireland: Black-tailed godwit. Available at: https://birdwatchireland.ie/birds/black-tailed-godwit/

the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for black-tailed godwit as a precautionary approach. The risk of a likely significant effect for this species can be excluded for the designated sites located > 150 km from the Project. However, there is potential for black-tailed godwit associated with Dundalk Bay SPA (located 0.7 km from the Project) and Boyne Estuary SPA (located 10.2 km from the Project) to occur within the Project area due to their close proximity.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4)**.

Breeding

Black-tailed godwit breed in lowland wet grassland and marshes. Nine breeding sites were identified in Ireland during the last breeding atlas.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the seven SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Coot (*Fulica atra*)

Coot is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4), Lough Swilly SPA and Wexford Harbour and Slobs SPA located 141.8 km and 150.8 km from the Project.

Foraging

Coot is a resident throughout Ireland, and winter visitor from the Continent and Britain[2]. This species can be found at ponds and lakes throughout the country, feeding on both plants and animals, but mainly on plants. They take food from the water surface, including emergent plants and whilst diving. Food includes plant shoots, seeds, insects, algae and fish. The foraging range of coots are unknown but are generally restricted to lakes and ponds where they are resident. As such, there is no potential for connectivity between the Project and Lough Swilly SPA and Wexford Harbour and Slobs SPA for which this species is designated.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Coot requires large bodies of water on which to nest. They nest in large shallow water bodies that are rich in nutrients and have abundant bottom vegetation for food and some emergent vegetation for nest anchorage.

As the Project does not interfere with any large lake and pond waterbodies, there is no potential for connectivity between the Project and coot breeding locations.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Common scoter (*Melanitta nigra*)

Common Scoter is a SCI of six European sites identified within the ZoI of the Project (see Table 4-4). The North-west Irish Sea SPA and Dundalk Bay SPA are the closest, located 0 km (i.e., intersects the offshore cable corridor), and 0.7 km from the Project. The remaining SPAs (see Table 4-4) are located between 138.5 km and 215.6 km from the Project.

Foraging

The Common Scoter is a resident and winter visitor from the Continent to all Irish coasts between October and April. Common Scoter are almost entirely marine during the winter. Common Scoter are breeding and wintering species, and have demonstrated to be particularly sensitive to disturbance, notably offshore, including in relation to wind farms (e.g., Exo *et al.,* 2003, Kaiser *et al.,* 2006). During the winter, common

scoter forage mostly in waters less than 20 m deep and with coarse sandy substrates, feeding predominantly on benthic bivalve molluscs[31]. The mean maximum foraging range for the common scoter is 8.2 km (Royal Society for the Protection of Birds (RSPB), 2010). Consequently, there is a risk that wintering birds from SPA population designated as part of the North-west Irish Sea SPA (intersects the Project) and Dundalk Bay SPA (located approximately 0.7 km from the Project) will be present in the wind farm area during the wintering season. The remaining designated sites are outside the maximum foraging range for common scoter therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for the North-west Irish Sea SPA and Dundalk Bay SPA (see Table 4-4).**

Breeding

In Ireland, the breeding population of this species is much less common, and in the Republic of Ireland is now restricted to four lakes in the west; Loughs Arrow, Conn, Corrib and Ree (Hunt et al., 2013). Common Scoter nest on boggy heathland near freshwater water bodies, including small lakes, streams and slow-moving rivers in the northern part of its European range (Snow and Perrins, 1998).

Therefore, the potential for likely significant effects, can be excluded for the six SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Curlew (*Numenius arquata*)

Curlew is a SCI of nine European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA is the closest, located 0.7 km from the Project. The remaining SPAs (see Table 4-4) are located >135 km from the Project.

Foraging

Curlew winter in a wide range of wetland habitats (coastal and inland), including damp fields. The Irish breeding population is supplemented by Scottish and Scandinavian breeders in winter. Curlew are usually well dispersed across an estuary while feeding. They feed mostly on invertebrates, particularly ragworms, crabs and molluscs[32]. The maximum foraging range during breeding season for this designated species is 2 km (NatureScot, 2016). Therefore, there is a risk that birds from the SPA population associated with Dundalk Bay SPA (located 0.7 km from the Project) will be present in the offshore wind farm area. The remaining designated sites are outside the maximum foraging range for curlew therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4)**.

Breeding

Curlew nest on the ground in rough pastures, meadows and heather. They are not a common breeder but are found in most parts of the country. Nests are usually constructed in a shallow depression or more generally in a grassy or rushy tussock, which gives partial cover. Its breeding distribution is now confined to central and western counties from Kerry to Donegal (Balmer *et al.,* 2013).

Therefore, the potential for likely significant effects, can be excluded for the nine SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

[31] Birdwatch Ireland: Common scoter. Available at: https://birdwatchireland.ie/birds/common-scoter/

[32] Birdwatch Ireland: Curlew. Available at: https://birdwatchireland.ie/birds/curlew

Dunlin (*Calidris ariti*)

Dunlin is a SCI of 12 European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA is the closest, located 0.7 km from the Project. The remaining SPAs (see Table 4-4) are located >63 km from the Project.

Foraging

Dunlin forage in flocks in the muddier sections of estuaries, close to the tidal edge. They feed primarily on small invertebrates, particularly polychaete worms and small gastropods[33]. The maximum foraging range during breeding season for this designated species is 3 km (NatureScot, 2016). Consequently, there is a risk that birds from the SPA population associated with Dundalk Bay SPA (located 0.7 km from the Project) will be present in the wind farm area during the wintering season. The remaining designated sites are outside the maximum foraging range for dunlin therefore the risk of a likely significant effect for these species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4)**.

Breeding

Dunlin nest on the ground in sparse, low vegetation. In Ireland, this species breeds in an increasingly limited number of sites and is now largely restricted to a few machair sites on the west coast of Mayo and some upland sites in the north and west (Gamero *et al.,* 2008). These include Roonagh Lough, Fahy Lough and the Inishkea Islands. Further inland, breeding has also been recorded at Slieve Fyagh. Estimates of the Irish national breeding population now stand at only 150 breeding pairs (Lauder and Donaghy 2008), which represents a distinct population of the subspecies *Calidris. ariti. schinzii* (Wenink *et al.,* 1996; Gamero *et al.,* 2008; Suddaby and Newton 2006). Dunlins construct nests on shallow scrapes at ground level, hidden amongst vegetation or occasionally within a raised tussock, as solitary pairs or in small aggregations (Snow and Perrins 1998). Across their range Dunlins use a variety of estuarine mud flats, shingle beaches, wet grasslands and salt marshes as favoured breeding habitat, both for feeding and nesting, though they may also use adjacent coastal pasture during spring tides or if disturbed. There are no known breeding sites within SPA within the ZoI of the Project.

Therefore, the potential for likely significant effects, can be excluded for the 12 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Gadwall (*Anas strepera*)

Gadwall is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), Lady's Island Lake SPA. The Lady's Island Lake SPA is located 180.3 km from the Project.

Foraging

Gadwall are resident at wetlands mainly in the south and east of Ireland. Gadwall feed on a mixed diet of seeds, insects and aquatic vegetation[34]. The maximum foraging range of gadwall is unknown, therefore foraging ranges of bird species within the same duck family are used for comparison. The maximum foraging range of eider as described by Woodward *et al.* (2019) is 22 km, which is the largest foraging range of the duck species assessed in this report. Therefore, a presumed maximum foraging range of 22 km has been adopted for gadwall as a precautionary approach. As such, there is no potential for connectivity between the Project and Lady's Island Lake SPA for which this species is designated.

Therefore, the potential for likely significant effects, can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

[33] Birdwatch Ireland: Dunlin. Available at: https://birdwatchireland.ie/birds/dunlin

[34] Birdwatch Ireland: Gadwall. Available at: https://birdwatchireland.ie/birds/gadwall/

Breeding

Gadwall nest on a variety of freshwater and brackish wetlands, especially shallow lakes with abundant emergent vegetation, slow moving rivers and marshes. There is no potential for connectivity between the Project and Lady's Island Lake SPA for which this species is designated.

Therefore, the potential for likely significant effects, can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Goldeneye (*Bucephala clangula*)

Goldeneye is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4), Wexford Harbour and Slobs SPA and Lough Swilly SPA. The closest is Lough Swilly SPA, located 141.8 km from the Project.

Foraging

Most goldeneye are present in Ireland between November and April. This species winters on coastal estuaries and inland lakes. Goldeneye feed on invertebrates, mostly crustaceans, but also molluscs and occasionally small fish. Insects, especially caddis-fly and chironomid larvae, dominate the diet of birds occurring on inland waters.[35] The maximum foraging range of goldeneye is unknown, therefore foraging ranges of bird species within the same duck family are used for comparison. The maximum foraging range of eider as described by Woodward *et al.* (2019) is 22 km, which is the largest foraging range of the duck species assessed in this report. Therefore, a presumed maximum foraging range of 22 km has been adopted for goldeneye as a precautionary approach. As such, there is no potential for connectivity between the Project and the two SPAs for which this species is designated, which are both located > 140 km from the Project.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Goldeneye nest in holes in trees and nest boxes, and occasionally in rabbit burrows, usually near water. One pair bred at Lough Neagh in 2000, which was the first breeding record in Ireland.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Golden plover (*Pluvialis apricaria*)

Golden Plover is a SCI of ten European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA is the closest, located 0.7 km from the Project. Of the remaining SPAs, one is located within the foraging range of this species, Boyne Estuary SPA, located 10.2 km from the Project.

Foraging

Golden plover feed on a variety of soil and surface-living invertebrates, principally beetles and earthworms, but also on plant material such as berries, seeds and grasses[36]. The maximum foraging range during breeding season for this designated species is 11 km (NatureScot, 2016). Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA populations associated with Dundalk Bay SPA and Boyne Estuary SPA will be present in the Project area. The remaining designated sites are outside the maximum foraging range for golden plover therefore the risk of a likely significant effect for these species can be excluded in relation to these sites.

[35] Birdwatch Ireland: Goldeneye. Available at: https:/birdwatchireland.ie/birds/goldeneye

[36] Birdwatch Ireland: Golden Plover. Available at: https://birdwatchireland.ie/birds/golden-plover

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4).**

Breeding

Golden plover breed in heather moors, blanket bogs and acidic grasslands for nesting, favouring those areas with shorter vegetation (Snow and Perrins 1998). Distribution limited to the uplands of northwest counties in Ireland. This species is not a colonial nester though pairs may nest within 100 m of each other. The breeding (summer) distribution in Ireland is limited to the uplands of western and northwestern counties in Ireland (Cummins *et al.,* 2004).

Therefore, the potential for likely significant effects, can be excluded for the 10 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Great crested grebe (*Podiceps cristatus*)

Great crested grebe is a SCI of five European sites identified within the ZoI of the Project (see Table 4-4). The closest European site is Dundalk Bay SPA, located 0.7 km from the Project. The remaining SPAs (see Table 4-4), are located > 135 km from the Project.

Foraging

Great crested grebe feed primarily on fish, sometimes supplemented with aquatic invertebrates[37]. There is no published foraging range for this species, however a study in Cork Harbour found that Great Crested Grebes may travel over 3 km from roost sites to feed during the day. Primary roosts occurred in open water around 0.5-1.5 km out from the shoreline. Generally, the distribution of grebe foraging areas in relation to roost sites indicates that commuting distances of 3-5 km are not uncommon (Gittings, 2017). Therefore, a presumed maximum foraging range of 5 km is adopted for great crested grebe. Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project). There is a risk that birds from the SPA wintering populations associated with Dundalk Bay SPA will be present in the Project area during the wintering season. The remaining designated sites are all located outside this range (> 135 km from the Project) therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Great crested grebe breed on large, shallow eutrophic loughs, and along canals and slow flowing rivers – wetlands with emergent vegetation bordered by open water are generally selected. Nests are a large mound of aquatic vegetation and are usually well concealed within reeds. The Project does not interact with these habitat types and no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the five SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Greenland white-fronted goose *(Anser albifrons flavirostris)*

Greenland white-fronted goose is a SCI of four European sites identified within the ZoI of the Project (see Table 4-4). Lough Swilly SPA is the closest (see Table 4-4), located 141.8 km northwest of the Project.

Foraging

Greenland White-fronted geese forage over peat bogs, dune grassland, and occasionally salt marsh, with the use of agricultural grassland increasing in recent years. They feed on a range of plant materials, including grasses, clover, spilt grain, winter wheat and potatoes[38]. The maximum foraging range during

[37] Birdwatch Ireland: Great Crested Grebe. Available at: https://birdwatchireland.ie/birds/great-crested-grebe

[38] Birdwatch Ireland: Greenland White-fronted Goose. Available at: https://birdwatchireland.ie/birds/greenland- white-fronted-goose/

winter season for this designated species is 8 km (NatureScot, 2016). Therefore, there is no potential for connectivity for this species between the Project and the four European Sites for which this species is designated, as they are all located outside the maximum foraging range.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the four SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Breeding

Greenland white-fronted goose do not breed in Ireland. They breed on lowland tundra, often by lakes and rivers. Nests are widely scattered, though loose colonies may be formed.

Therefore, the potential for likely significant effects, can be excluded for the four SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Greenshank (*Tringa nebularia*)

Greenshank is a SCI of one European site, Lough Swilly SPA within the ZoI of the Project (see Table 4-4). The Lough Swilly SPA is located 141.8 km from the Project.

Foraging

Greenshank feed in deep water sites, channels, brackish pools and lakes, predominantly on invertebrates, including shrimps, crabs and small fish. They mostly feed by pecking at the mud, water or vegetation, and catch fish by using a dash-and-lunge technique[39]. The maximum foraging range during breeding season for this designated species is 3 km (NatureScot, 2016). Therefore, there is no potential for connectivity for this species between the Project and the Lough Swilly SPA, which is located outside the maximum foraging range for greenshank.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for Lough Swilly SPA (see Table 4-4) for which this bird is designated.

Breeding

There have been occasional sightings of birds in suitable habitat (Birds of Conservation Concern in Ireland (BoCCI) listing), and one pair was confirmed to have bred in Co. Mayo on at least two occasions during the early 1970's[2]. The main breeding range in Europe extends from pool-dominated and boulder-strewn bogland areas of Scotland to Scots Pine woods in Scandinavia.

Therefore, the potential for likely significant effects, can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Grey plover (*Pluvialis squatarola*)

Grey Plover is a SCI of nine European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA and Boyne Estuary SPA are the closest, located 0.7 km and 10.2 km from the Project. The remaining SPAs (see Table 4-4), are located between 63 km and 234.1 km from the Project.

Foraging

Grey plover feed on a variety of burrowing intertidal invertebrates, including polychaete worms, molluscs and crustaceans[40]. This species will largely remain along coastlines when foraging and commuting, so it is likely that grey plover associated with Dundalk Bay SPA and Boyne Estuary SPA will occur within the Project area. As the maximum foraging range of grey plover is unknown, that of golden plover is used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016). Therefore, a presumed maximum foraging range of 11 km has been adopted for grey plover as a precautionary approach. Therefore, there is potential for connectivity for this species with the Project and a risk that birds

[39] Birdwatch Ireland: Greenshank. Available at: https://birdwatchireland.ie/birds/greenshank

[40] Birdwatch Ireland: Grey Plover. Available at: https://birdwatchireland.ie/birds/grey-plover

from the SPA wintering populations associated with Dundalk Bay SPA and Boyne Estuary SPA will be present in the Project area during the wintering season. The remaining designated sites are located >63 km from the Project, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4).**

Breeding

Grey plover do not breed in Ireland. They breed across the high arctic regions of Russia and North America.

Therefore, the potential for likely significant effects, can be excluded for the nine SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Greylag goose *(Anser anser)*

Greylag Goose is a SCI of seven European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA and Stabannan-Braganstown SPA, are the closest, located 0.7 and 1.8 km from the Project, respectively. The remaining SPAs for which this species is designated are located > 40 km from the Project.

Foraging

Greylag geese feed mostly on cereal stubble and grassland in their wintering areas[41]. The maximum foraging range during winter season for this designated species is 20 km (NatureScot, 2016). Therefore, there is potential for connectivity for this species and a risk that birds from the SPA wintering populations associated with Dundalk Bay SPA (located 0.7 km from the Project) and Stabannan-Braganstown SPA (located 1.8 km from the Project) will be present in the Project area during the wintering season. The remaining designated sites are outside the maximum foraging range for greylag goose (> 40 km from the Project) therefore the risk of a likely significant effect for these sites can be excluded.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Stabannan-Braganstown SPA (see Table 4-4).**

Breeding

Greylag goose breed by lakes and reservoirs, with the nest site often close to water and hidden in reeds or other waterside vegetation. They nest in pairs, but locally colonially. The resident population is widespread, occurring in smaller numbers (usually less than 10) at sites throughout the country. The most recent count stands at 82 locations (Boland and Crowe 2012). At the last comprehensive all-Ireland count, 1,555 were believed to be resident breeding birds (Boland and Crowe 2008). Ground-based disturbances associated with wind installations may affect feeding and roosting behaviour. For example, substantial avoidance of roads by greylag geese has been recorded in Scotland (Keller, 1991) where flocks were found at a mean distance of 400 m to roads but not within 100 m. The Project does not interact with these breeding habitat types, and no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the seven SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Knot (*Calidris canutus*)

Knot is a SCI of 13 European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA, Boyne Estuary SPA and River Nanny Estuary and Shore SPA are the closest, located 0.7 km, 10.2 km and 16.6 km from the Project. The remaining designated sites are located between 49.4 km and 224.3 km from the Project.

[41] Birdwatch Ireland: Greylag Goose. Available at: https://birdwatchireland.ie/birds/greylag-goose

Foraging

Knot are a wading species and feed predominantly on bivalve mussels and crustaceans[42]. The maximum foraging range of knot is unknown, therefore foraging ranges of similar waders are used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for knot as a precautionary approach. Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA wintering populations associated with Dundalk Bay SPA and Boyne Estuary SPA will be present in the Project area during the wintering season. The remaining designated sites are located > 16.6 km from the Project, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4).**

Breeding

Knot breed at low density, and often close to the coast, nesting on well concealed and sparsely vegetated gravel and rocky slopes. The Project does interact with these breeding habitat types and there is potential for likely significant effects.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4).**

Lapwing (*Vanellus vanellus*)

Lapwing is a SCI of six European sites identified within the ZoI of the Project (see Table 4-4). The closest sites are Dundalk Bay SPA and Boyne Estuary SPA, located 0.7 km and 10.2 km from the Project, respectively.

Foraging

In winter, lapwings are widely distributed across a multitude of habitats in Ireland, including most major wetlands, pasture and rough land adjacent to bogs where large flocks are regularly recorded (McGuinness *et al.,* 2015). The greatest numbers occur in Ireland between September and April. This species displays high site fidelity and are reliant on site but are also highly likely to utilise alternative habitats at certain times (e.g., high tide) (NPWS, 2011a). Lapwing have a varied diet, feeding on a variety of soil and surface-living invertebrates, particularly small arthropods and earthworms. They will also will readily exploit temporary food sources, such as ploughed fields and on the edge of floodwaters[43].

As the maximum foraging range of lapwing is unknown, that of golden plover is used for comparison as these waders are in the same plover family. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016). Therefore, a presumed maximum foraging range of 11 km has been adopted for lapwing as a precautionary approach. Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA wintering populations associated with Dundalk Bay SPA and Boyne Estuary SPA will be present in the Project area during the wintering season. The remaining sites for which this species is designated are located > 136 km from the Project, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4).**

Breeding

Lapwing breed on open farmland and appear to prefer nesting in fields that are relatively bare (particularly when cultivated in the spring) and adjacent to grass. In Ireland, this species breeds in an increasingly limited number of sites. Strongholds include the Shannon Callows, Lough Boora parklands and suitable sites

[42] Birdwatch Ireland: Knot. Available at: https://birdwatchireland.ie/birds/knot/

[43] Birdwatch Ireland: Lapwing. Available at: https://birdwatchireland.ie/birds/lapwing

(predominantly based around machair grassland) on the coast of Mayo, Sligo and Donegal. It is also found at low densities on a range of other habitats in the wider countryside, including cutaway bogs and arable farmland, where it breeds in solitary pairs or loose colonies.

Therefore, the potential for likely significant effects, can be excluded for the six SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Light-bellied brent goose (*Branta bernicla hrota*)

Light-bellied brent goose is a SCI of 13 European sites identified within the ZoI of the Project (see Table 4-4). Dundalk Bay SPA is the closest, located 0.7 km west of the Project and supports nationally important populations of this winter migrant. Ireland is home to the largest wintering population of this species in Europe. The remaining SPAs (see Table 4-4), are located > 18 km from the Project.

Foraging

Light-bellied Brent geese are winter migrants from high-Arctic Canada. Most occur in Ireland between October and April. This species is mostly found on coastal estuaries during the autumn and early winter, and also on grasslands from mid-winter, until departure for the breeding grounds begins in late April. Light-bellied brent geese feed mostly on eel-grass on muddy estuaries, and also on grasslands, usually when coastal supplies have been depleted at estuarine sites[44]. Light-bellied brent goose have been noted to have an average foraging range of 53 km and a maximum foraging range of up to 77 km (Clausen *et al.,* 2013).

Therefore, there is potential for connectivity for this species and a risk that birds from the SPA wintering populations associated with Dundalk Bay SPA, Carlingford Lough SPA (IE), Carlingford Lough SPA (UK), Skerries Island SPA, South Dublin Bay and Tolka Estuary SPA, Strangford Lough SPA and Outer Ards SPA, located within the maximum foraging range of 77 km, will be present in the Project area during the wintering season.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA, Carlingford Lough SPA (IE), Carlingford Lough SPA (UK), Skerries Island SPA, South Dublin Bay and Tolka Estuary SPA, Strangford Lough SPA and Outer Ards SPA (see Table 4-4).**

Breeding

Light-bellied Brent goose does not breed in Ireland. They nest in small, loose colonies by coastal tundra, with pools and small inlets.

Therefore, the potential for likely significant effects, can be excluded for the 13 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Little egret (*Egretta garzetta*)

Little egret is a SCI of one European site identified within the ZoI of the Project (see Table 4-4). Morecambe Bay and Duddon Estuary SPA is located 170.8 km northeast of the Project.

Foraging

Little egret forage across a range of wetland habitats from lakes to flooded grassland. They feed on a wide variety of animals including small fish, frogs, snails and insects[45]. A study of this species in Hong Kong found that the maximum home range was 20.6 km (Pang *et al.,* 2020). Therefore, there is no potential for connectivity between the Project and Morecambe Bay and Duddon Estuary SPA, as it is located 170.8 km from the Project, which is beyond the maximum home range for little egret.

[44] Birdwatch Ireland: Brent Goose (Light-bellied). Available at: https://birdwatchireland.ie/birds/brent-goose-light-bellied/

[45] Birdwatch Ireland: Little Egret. Available at: https://birdwatchireland.ie/birds/little-egret

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for Morecambe Bay and Duddon Estuary SPA (see Table 4-4) for which this bird is designated.

Breeding

Little egret breed in lakes, marshes, flooded fields and estuaries.

Therefore, the potential for likely significant effects, can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Little Grebe (*Tachybaptus ruficollis*)

Little Grebe is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), Wexford Harbour and Slobs SPA. The Wexford Harbour and Slobs SPA is located 150.8 km from the Project.

Foraging

Little grebe is resident on ponds and lakes throughout Ireland. Little Grebes extend their wintering habitat to include ephemeral wetlands and are often encountered on sheltered coasts, estuaries and coastal lakes and lagoons at this time of the year. Little grebe have an unknown site fidelity and are considered totally reliant on wetland habitats due to unsuitable surrounding habitats and/or the species limited habitat requirements (NPWS, 2012e). They feed on a range of invertebrates (particularly insect larvae), small fish and molluscs[46]. As the maximum foraging range of little grebe is unknown, that of great-crested grebe is used for comparison. A maximum foraging range of 5 km has been adopted for great crested grebe and as such, a presumed maximum foraging range of 5 km is also applied for little grebe as a precautionary approach, despite the differences (e.g., size) between these two species. Therefore, there is no potential for connectivity for this species between the Project and the Wexford Harbour and Slobs SPA, which is located 150.8 km from the Project and considered to be outside the foraging range for this species.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the Wexford Harbour and Slobs SPA (see Table 4-4).

Breeding

Breeding sites are relatively widely scattered with slightly higher densities in the northeast of Ireland. Pairs are highly territorial, nesting mostly on floating plant material hidden in dense vegetation at the margins of shallow, freshwater rivers, streams, loughs and ponds. They are typically shy and skulking when breeding. Some pairs occupy breeding territories throughout the years, while at some sites birds disperse from their inland breeding sites over the winter. No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects, can be excluded for the one SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Mallard (*Anas platyrhynchos*)

Mallard is a SCI of five European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA is the closest, located 0.7 km from the Project. The remaining SPAs (see Table 4-4), are located between a range of 136.7 km and 158.6 km from the Project.

Foraging

Mallard is both resident in Ireland, but also a winter migrant from Iceland, Fennoscandia, Russia, Poland, Denmark, Germany, The Netherlands, Belgium and France. The species is widespread. Mallard has a highly variable diet but plant material, particularly seeds, predominate. It will also feed on animal material including molluscs and crustaceans. Mallard will also feed on grain and stubble as well as a variety of food items presented by humans[47]. A meta-analysis of distances flown (flight distance) between roost site and feeding

[46] Birdwatch Ireland: Little Grebe. Available at: https://birdwatchireland.ie/birds/little-grebe

[47] Birdwatch Ireland: Mallard. Available at: https://birdwatchireland.ie/birds/mallard

site for mallards during migration and winter identified a max mean flight distance of 15 km from surveys completed in France and the USA (Johnson *et al.,* 2014). Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project). There is a risk that birds from the SPA wintering population associated with Dundalk Bay SPA will be present in the Project area during the wintering season. The remaining designated sites are all located outside this range (> 136 km from the Project) therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Mallard nest sites vary, mostly in ground where hidden in vegetation. They occur in almost all available wetland habitats in Ireland. The Project does not interact with these breeding habitat types, and significant effects are not deemed likely.

Therefore, the potential for likely significant effects, can be excluded for the five SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Oystercatcher (*Haematopus ostralegus*)

Oystercatcher is a SCI of 11 European sites identified within the ZoI of the Project (see Table 4-4). The Dundalk Bay SPA, Boyne Estuary SPA and River Nanny Estuary and Shore SPA are the closest, located 0.7 km, 10.2 km and 16.6 km from the Project. The remaining SPAs (see Table 4-4), are located between 63 km and 224.3 km from the Project.

Foraging

This resident and winter visitor (from Iceland and the Faeroes) has its largest numbers in Ireland between September and March. Oystercatchers use all coastal habitats, and particularly favour open sandy coasts. Oystercatcher feed primarily on larger invertebrates, particularly mussels and cockles that proliferate along sandy coasts. They also forage occasionally on grasslands, where they prey on tipulid larvae and earthworms[48]. A German study of foraging behaviours found the maximum distance to be 6 km (Schwemmer *et al.,* 2016). Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project). There is a risk that oystercatcher from the wintering population associated with Dundalk Bay SPA will occur within the Project area during the wintering season. The remaining designated sites are all located outside the foraging range (> 10 km from the Project) therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Oystercatcher nest principally on shingle beaches, dunes, salt marshes and rocky shores around the coast, but also on some large inland lakes.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Pink-footed goose (*Anser brachyrhynchus*)

Pink-footed goose is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4). Morecambe Bay and Duddon Estuary SPA is the closest, located 170.8 km northeast of the Project.

[48] Birdwatch Ireland: Oystercatcher. Available at: https://birdwatchireland.ie/birds/oystercatcher

Foraging

Pink-footed geese feed mainly on grasses, similar to other geese species[49]. The maximum foraging range during winter season for this designated species is 20 km (NatureScot, 2016). Therefore, there is no potential for connectivity for this species between the Project and the two SPAs for which this species is designated, as they are both located > 170 km from the Project, which is outside the maximum foraging range for this species.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the Morecambe Bay and Duddon Estuary SPA and the Ribble and Alt Estuaries SPA (see Table 4-4).

Breeding

Pink-footed goose does not breed in Ireland. They breed on the open tundra of Greenland, Iceland and Svalbard.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Pintail (*Anas acuta*)

Pintail is an SCI of five European sites identified within the ZoI of the Project (see Table 4-4). The closest is Dundalk Bay SPA, located 0.7 km from the Project. The remaining SPAs (see Table 4-4), are located between a range of 150.8 km and 224.3 km from the Project.

Foraging

Pintail are a local winter visitor to wetlands throughout Ireland from October to March. They feed primarily on plant seeds and underwater plants; however they will also consume insects, crustaceans and stubble on farmlands[50]. A meta-analysis of distances flown (flight distance) between roost site and feeding site for pintails during migration and winter identified a max mean flight distance of 18.5 km from surveys completed in France and the USA (Johnson *et al.,* 2014). Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project). There is a risk that birds from the SPA wintering population associated with Dundalk Bay SPA will be present in the Project area during the wintering season. The remaining designated sites are all located outside this range (> 150 km from the Project) therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Pintail nest in shallow freshwater marshes, small lakes and rivers, preferably with dense vegetation cover. Small breeding population of between 30 and 40 pairs in Britain, and there have been a few breeding records in Ireland, with one pair in County Down in 1994. No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects, can be excluded for the five SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Purple sandpiper (*Calidris maritima*)

Purple Sandpiper is a SCI of three European sites identified within the ZoI of the Project (see Table 4-4). The closest SPAs are Rockabill SPA and Skerries Island SPA, located 26.9 km and 30.1 km south of the Project, respectively. The remaining SPAs (see Table 4-4), are located >240 km from the Project.

[49] Birdwatch Ireland: Pink-footed Goose. Available at: https://birdwatchireland.ie/birds/pink-footed-goose

[50] Birdwatch Ireland: Pintail. Available at: https://birdwatchireland.ie/birds/pintail

Foraging

Purple sandpiper is primarily found at lower intertidal zones on bedrock platforms or tidal flats (Gutowsky *et al.,* 2019). Purple sandpiper forage in areas overgrown by seaweed, feeding primarily on gastropods and other molluscs[51]. During the breeding season, the home range in which purple sandpiper forage does not exceed a 2 km radius around their nest. Winter home ranges are larger and more variable in size, but most birds return to the same one each year (Payne and Pierce, 2002). Given the lack of information available on foraging ranges for this species during the winter, the maximum foraging ranges of similar waders are used for comparison. The maximum foraging range during the breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for purple sandpiper as a precautionary approach. Therefore, there is no potential for connectivity for this species between the Project and the three SPAs for which this species is designated, as they are all located > 26 km from the Project.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the Rockabill SPA, Skerries Island SPA and Inishkea Islands SPA (see Table 4-4).

Breeding

Purple sandpiper do not breed in Ireland. They breed in tundra habitat, mountains and rocky shores in Iceland and Scandinavia.

Therefore, the potential for likely significant effects, can be excluded for the three SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Red-breasted merganser (*Mergus serrator*)

Red-breasted Merganser is a SCI of six European sites identified within the ZoI of the Project (see Table 4-4). The closest is Dundalk Bay SPA, located 0.7 km from the Project. The remaining SPAs (see Table 4-4), are located between 136.7 km and 215.16 km from the Project.

Foraging

Red-breasted merganser feed primarily on fish, with preference for small cod, hake and plaice. During the breeding season, they feed on freshwater fish such as roach, trout and salmon[52]. The species is resident in Ireland and a winter visitor from the European continent. This species winters exclusively in brackish and marine waters, particularly in shallow protected estuaries and bays and lagoons, and also offshore. Population numbers have been progressively increasing at Dundalk Bay (NPWS, 2011a). The maximum foraging range of red-breasted merganser is unknown, therefore foraging ranges of bird species within the same duck family are used for comparison. The maximum foraging range of eider as described by Woodward *et al.,* (2019) is 22 km, which is the largest foraging range of the duck species assessed in this report. Therefore, a presumed maximum foraging range of 22 km has been adopted for red-breasted merganser as a precautionary approach. Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project). The remaining designated sites are all located outside this range (> 136 km from the Project) therefore, the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Red-breasted merganser nest on sheltered lakes and large rivers throughout the west and north of the country, though they are largely absent from Clare and a few pairs have been recorded in Wexford. They use a variety of nesting habitats, usually located beside fast-flowing rivers, large and small lakes, also along

[51] Birdwatch Ireland: Purple Sandpiper. Available at: https://birdwatchireland.ie/birds/purple-sandpiper

[52] Birdwatch Ireland: Red-breasted Merganser. Available at: https://birdwatchireland.ie/birds/red-breasted-merganser/

the coast, on islands and sea-loughs. No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects, can be excluded for the six SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Redshank (*Tringa totanus*)

Redshank is a SCI of 12 European sites identified within the ZoI of the Project (see Table 4-4). The closest is Dundalk Bay SPA, located 0.7 km from the Project.

Foraging

Redshank feed mostly along the upper shore of estuaries and along muddy river channels. Their prey consists mostly of *Hydrobia* sp., *Corophium* sp. and nereid worms[53]. A study found that in up to 20% of tagged redshank, the maximum foraging range was 4 km (Burton, 2000). In addition, results from the Dublin Bay Birds Project[54] highlighted that no redshank ringed on Dublin's north-side has ever been resighted south of the Liffey and only 2 redshanks ringed on Dublin's south-side have been resighted north of the river. This indicated that the foraging range of redshank is small and likely to be less than several kilometres (assumed a maximum of 5 km as precaution). Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA wintering population associated with Dundalk Bay SPA will be present in the Project area during the wintering season. The remaining designated sites are located > 10 km from the Project and outside the maximum foraging range for redshank, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Redshank breeding range extends across suitable habitat of the midlands (especially the Shannon Callows) and northern half of the country. This species also breeds in selected coastal areas, notably in areas of coastal machair, especially that of islands off the west coast (Suddaby *et al.,* 2010). Currently, Irish estimates of breeding populations of Redshank reflect these EU and UK declines, lying at 500 pairs (Lauder and Donaghy 2008). The Redshank is a ground-nesting wader, predominantly nesting in grassy tussocks of grass marshes, river valleys, coastal marshes and heathland, where they lie concealed within tussocks until incubation is complete (Nairn *et al.,* 2004). Machair is also considered an increasingly important breeding habitat for this species in Ireland (Suddaby *et al.,* 2010). No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects, can be excluded for the 12 SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Ringed plover (*Charadrius hiaticula*)

Ringed Plover is a SCI of nine European sites identified within the ZoI of the Project (see Table 4-4). The closest are Dundalk Bay SPA and River Nanny Estuary and Shore SPA, located 0.7 km and 16.6 km from the Project. The remaining SPAs (see Table 4-4), are located between a range of 63 km and 266.5 km from the Project.

[53] Birdwatch Ireland: Redshank. Available at: https://birdwatchireland.ie/birds/redshank/

[54] Birdwatch Ireland online article - All your birds coming home to roost: an overview of roosting waterbirds in Dublin Bay. Available online at: https://birdwatchireland.ie/all-your-birds-coming-home-to-roost-an-overview-of-roosting-waterbirds-in-dublin-bay/. Accessed 16/12/2021.

Foraging

Ringed plover are small waders, feeding on a variety of invertebrates, particularly polychaete worms and crustaceans[55]. This species winters around the entire coastline of Ireland but are quite sparse along the north and southeast coasts. It has mostly been recorded along sandy stretches or along the upper shores of estuaries and non-estuarine coastline. As the maximum foraging range of ringed plover is unknown, that of golden plover is used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016). Therefore, a presumed maximum foraging range of 11 km has been adopted for ringed plover as a precautionary approach. Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA wintering populations associated with the Dundalk Bay SPA will be present in the Project area during the wintering season. The remaining designated sites are located > 16.6 km from the Project, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Ringed plover have mostly coastal breeding distribution, preferring to nest on exposed wide sandy or shingle beaches. Some breed inland, particularly in the west, where their preferred nesting habitat is on short-grazed pasture beside rivers and along lakes.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Ruddy turnstone (*Arenaria interpres*)

Ruddy turnstone (often referred to as turnstone) is a SCI of six European sites identified within the ZoI of the Project (see Table 4-4). The closest sites are Boyne Estuary SPA and Skerries Island SPA, located 10.2 km and 30.1 km from the Project. The remaining SPAs (see Table 4-4), are located between a range of 72.5 km and 266.5 km.

Foraging

Ruddy turnstone is a winter visitor from northeast Canada and northern Greenland and is present from late July to late April. This species winters all around the Irish coast. Turnstones feed on sandhoppers and other marine invertebrates, as well as fish carrion washed up on shore[56]. This species prefers shallow water and shoreline habitats. The maximum foraging range of ruddy turnstone is unknown, therefore foraging ranges of similar waders are used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for ruddy turnstone as a precautionary approach. Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA wintering populations associated with the Boyne Estuary SPA will be present in the Project area during the wintering season. The remaining designated sites are located > 30.1 km from the Project, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Boyne Estuary SPA (see Table 4-4).**

Breeding

Ruddy turnstone do not breed in Ireland. They breed around shores of Scandinavia.

[55] Birdwatch Ireland: Ringed Plover. Available at: https://birdwatchireland.ie/birds/ringed-plover

[56] Birdwatch Ireland: Turnstone. Available at: https://birdwatchireland.ie/birds/turnstone

Therefore, the potential for likely significant effects, can be excluded for the six SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Ruff (*Philomachus pugnax*)

Ruff is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4). Morecambe Bay and Duddon Estuary SPA is the closest, located 170.8 km northeast of the Project.

Foraging

Ruff forage primarily on mudflats, feeding on invertebrates[57]. This bird prefers shallow water and shoreline habitats. The maximum foraging range of ruff is unknown, therefore foraging ranges of similar waders are used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for ruff as a precautionary approach. Therefore, there is no potential for connectivity for this species between the Project and the two SPAs for which this species is designated, as they are both located > 170 km from the Project.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the Morecambe Bay and Duddon Estuary SPA and Ribble and Alt Estuaries SPA (see Table 4-4).

Breeding

Ruff do not breed in Ireland. Passage birds seen in Ireland breed in meadows and bogs in Scandinavia and Russia.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Sanderling (*Calidris alba*)

Sanderling is a SCI of ten European sites identified within the ZoI of the Project (see Table 4-4). The closest are Dundalk Bay SPA and River Nanny Estuary and Shore SPA, located 0.7 km and 16.6 km from the Project respectively. The remaining SPAs (see Table 4-4), are located between a range of 63 km and 266.5 km from the Project.

Foraging

Sanderling are a small wader that feed predominantly on small invertebrates, including polychaete worms and shrimp-like crustaceans[58]. The maximum foraging range of sanderling is unknown, therefore foraging ranges of similar waders are used for comparison. The maximum foraging range during breeding season for golden plover is 11 km (NatureScot, 2016), which is the largest foraging range of the waders assessed in this report. Therefore, a presumed maximum foraging range of 11 km has been adopted for sanderling as a precautionary approach. Therefore, there is potential for connectivity for this species with the Project and a risk that birds from the SPA wintering populations associated with Boyne Estuary SPA will be present in the Project area during the wintering season. The remaining designated sites are located > 16.6 km from the Project, therefore the risk of a likely significant effect for this species can be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Boyne Estuary SPA (see Table 4-4).**

Breeding

Sanderling do not breed in Ireland. They breed across Arctic tundra, preferring small patches of vegetation.

[57] Birdwatch Ireland: Ruff. Available at: https://birdwatchireland.ie/birds/ruff/

[58] Birdwatch Ireland: Sanderling. Available at: https://birdwatchireland.ie/birds/sanderling/

Therefore, the potential for likely significant effects, can be excluded for the ten SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Scaup (*Aythya marila*)

Scaup is a SCI of two European sites identified within the ZoI of the Project (see Table 4-4), Wexford Harbour and Slobs SPA and Lough Swilly SPA. The closest is Lough Swilly SPA, located 141.8 km from the Project.

Foraging

Scaup are a winter visitor, mostly occurring between November and April. Scaup occur around coastal estuaries and bays, on brackish lagoons and in shallow marine waters, usually less than 10 m in depth. During winter, their diet consists largely of animal matter, primarily crustaceans and molluscs[59]. Scaup have a foraging and migratory preference for shallow water and shoreline habitats. The maximum foraging range of scaup is unknown, therefore foraging ranges of bird species within the same duck family are used for comparison. The maximum foraging range of eider as described by Woodward *et al.* (2019) is 22 km, which is the largest foraging range of the duck species assessed in this report. Therefore, a presumed maximum foraging range of 22 km has been adopted for scaup as a precautionary approach. Therefore, there is no potential for connectivity for this species between the Project and the two SPAs for which this species is designated, as they are both located > 140 km from the Project.

As such, likely significant effects upon this SCI species can be excluded at the screening stage for Lough Swilly SPA and Wexford Harbour and Slobs SPA (see Table 4-4).

Breeding

Scaup do not breed in Ireland. The breeding range includes Greenland, Iceland, northern Scandinavia and Siberia, as well as North America. Scaup nest beside shallow tundra pools and lakes.

Therefore, the potential for likely significant effects, can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Shelduck (*Tadorna tadorna*)

Shelduck is a SCI of nine European sites identified within the ZoI of the Project (see Table 4-4). The closest are Dundalk Bay SPA and Boyne Estuary SPA, located 0.7 km and 10.2 km from the Project, respectively. The remaining SPA's (see Table 4-4), are located between a range of 136.7 km and 224.3 km.

Foraging

Shelduck is a resident and winter migrant. They breed in open areas along seashores, larger lakes and rivers. Their wintering supporting habitat are intertidal mud and sand flats. Foraging distribution of shelduck is related to their favoured prey, *Hydrobia ulvae* (a type of mudsnail), which is present in almost all estuaries, and often in large numbers (Bryant and Leng 1975; Murphy *et al.,* 2006). The maximum foraging range of shelduck is unknown, therefore foraging ranges of bird species within the same duck family are used for comparison. The maximum foraging range of eider as described by Woodward *et al.* (2019) is 22 km, which is the largest foraging range of the duck species assessed in this report. Therefore, a presumed maximum foraging range of 22 km has been adopted for shelduck as a precautionary approach. Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project) and Boyne Estuary SPA (located 10.2 km from the Project). There is a risk that birds from the SPA wintering populations associated with these sites will be present in the Project area during the wintering season. The remaining designated sites are all located outside this range (> 136 km from the Project) therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA and Boyne Estuary SPA (see Table 4-4).**

[59] Birdwatch Ireland: Scaup. Available at: https://birdwatchireland.ie/birds/scaup

Breeding

Shelduck breed in open areas along seashores, larger lakes and rivers. They nest in holes in banks, trees, occasionally straw stacks or buildings. There has been a recent expansion in the range of the northwest European population, and birds in Ireland and Britain have been displaced from coastal breeding sites and are increasingly using inland sites. No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects, can be excluded for the nine SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated

Shoveler (*Anas clypeata*)

Shoveler is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), Lough Swilly SPA. The Lough Swilly SPA is located 141.8 km from the Project.

Foraging

This resident and winter migrant occurs mostly between October and March. During winter, shoveler prefer shallow eutrophic waters rich in plankton, and occur on a variety of habitats while wintering in Ireland, including coastal estuaries, lagoons and inland lakes and callows. They feed primarily on zooplankton, found mostly on ephemeral wetlands. They also feed on small molluscs, insects and larvae, seeds and plant material[60]. A meta-analysis of distances flown (flight distance) between roost site and feeding site for shoveler during migration and winter identified a max mean flight distance of 2.5 km from surveys completed in France (Johnson *et al.,* 2014). Therefore, there is no potential for connectivity for this species between the Project and Lough Swilly SPA, as it is located 141.8 km from the Project and considered to be outside the foraging range for this species.

As such, likely significant effects upon this SCI species can therefore be excluded at the screening stage Lough Swilly SPA (see Table 4-4).

Breeding

Shoveler nest on the ground among waterside vegetation, often many nests in close proximity. Breeding in Ireland is centred around Lough Neagh and the mid- Shannon basin. No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects, can be excluded for the one SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Slavonian grebe (*Podiceps auratus*)

Slavonian Grebe is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), Blacksod Bay/Broad Haven SPA. The Blacksod Bay/Broad Haven SPA is located 215.6 km west of the Project.

Foraging

Slavonian grebe have a preference for shoreline habitats. They feed mainly on fish and smaller species of crustaceans, as with other grebe species [61]. As the maximum foraging range of Slavonian grebe is unknown, that of great-crested grebe is used for comparison. A maximum foraging range of 5 km has been adopted for great crested grebe and as such, a presumed maximum foraging range of 5 km is also applied for Slavonian grebe as a precautionary approach, despite the differences (e.g., size) between these two species. Consequently, there is no potential for connectivity for this species between the Project and the Blacksod Bay/Broad Haven SPA, which is located 215.6 km from the Project and considered to be outside the foraging range for this species.

[60] Birdwatch Ireland: Shoveler. Available at: https://birdwatchireland.ie/birds/shoveler

[61] Birdwatch Ireland: Slavonian Grebe. Available at: https://birdwatchireland.ie/birds/slavonian-grebe

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for Blacksod Bay/Broad Haven SPA (see Table 4-4).

Breeding

Slavonian Grebe has not been recorded breeding in Ireland. They breed on well vegetated lakes and ponds in northwest Scotland and Iceland, as well as from Scandinavia east to Asia and North America.

Therefore, the potential for likely significant effects, can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Teal (*Anas crecca*)

Teal is a SCI of nine European sites identified within the ZoI of the Project (see Table 4-4). The closest is Dundalk Bay SPA, located 0.7 km from the Project. The remaining SPAs (see Table 4-4), are located between a range of 82.7 km and 249.3 km from the Project.

Foraging

Teal feed predominantly on small seeds, but Enteromorpha sp. and molluscs are also frequently consumed. They occasionally feed on chironomid larvae where available, though usually during the summer months[62]. A meta-analysis of distances flown (flight distance) between roost site and feeding site for teal during migration and winter identified a max mean flight distance of 8.4 km from surveys completed in France (Johnson *et al.,* 2014). Consequently, there is potential for connectivity for this species between the Project and Dundalk Bay SPA (located 0.7 km from the Project). There is a risk that birds from the SPA wintering population associated with Dundalk Bay SPA will be present in the Project area during the wintering season. The remaining designated sites are all located outside this range (> 82 km from the Project) therefore the risk of a likely significant effect for these species can also be excluded in relation to these sites.

Therefore, the potential for **likely significant effects has been identified for Dundalk Bay SPA (see Table 4-4).**

Breeding

Teal usually nest near small freshwater lakes or pools and small upland streams away from the coast, and also in thick cover.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the nine SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Wigeon (*Anas penelope*)

Wigeon is a SCI of seven European sites identified within the ZoI of the Project (see Table 4-4). The closest is The Murrough SPA, located 82.7 km from the Project.

Foraging

Wigeon graze on coastal seagrass and algae, particularly on Zostera spp. and Enteromorpha spp., and also feeds regularly on grasslands and cereal crops[63]. A meta-analysis of distances flown (flight distance) between roost site and feeding site for wigeon during migration and winter identified a max mean flight distance of 2.8 km from surveys completed in France (Johnson *et al.,* 2014). Therefore, there is no potential for connectivity for this species between the Project and The Murrough SPA, Lough Foyle SPA (IE), Lough Swilly SPA, Lough Foyle SPA (UK), Wexford Harbour and Slobs SPA, Ribble and Alt Estuaries SPA and

[62] Birdwatch Ireland: Teal. Available at: https://birdwatchireland.ie/birds/teal/

[63] Birdwatch Ireland: Wigeon. Available at: https://birdwatchireland.ie/birds/wigeon

Ballymacoda Bay SPA, as they are all located > 82 km from the Project and considered to be outside the foraging range for this species.

On this basis, likely significant effects upon this SCI species can therefore be excluded at the screening stage for the seven SPAs for which this species is designated (see Table 4-4). This is in the absence of mitigation measures.

Breeding

Wigeon breed on shallow freshwater marshes, under tussocks adjacent to lakes and lagoons or on lake islands.

As the Project does not interfere with breeding locations associated with the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects, can be excluded for the seven SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

4.4.7.3 Birds of inland and coastal SPAs

Birds of inland and coastal SPAs are potentially at risk from the construction, operation and maintenance, and decommissioning of the Project. Potential impact(s) include:

- Disturbance and displacement;

The following species of SCI birds are a feature of SPAs considered relevant for the Project:

Bewick's swan (*Cygnus columbianus bewickii*)

Bewick's swan is a SCI of four European sites identified within the ZoI of the Project (see Table 4-4). The closest is Lough Foyle SPA (UK), located 136.7 km from the Project.

Foraging

Bewick's swan has a high site fidelity. In winter the species traditionally occupies and forages on pond weed tubers, rhizomes, grasses, herbs along shallow tidal water; inland freshwater lakes; marshes; flooded or seasonally flooded grassland (Beekman *et al.,* 1991, Dirksen *et al.,* 1991). The maximum foraging range of Bewick's swan is unknown; therefore the foraging range of whooper swan is used for comparison. The maximum foraging range during winter season for whooper swan is < 5 km (NatureScot, 2016). Therefore, a presumed maximum foraging range of 5 km has been adopted for Bewick's swan as a precautionary approach. Therefore, there is no potential for connectivity between the Project and the relevant European sites by virtue of distance.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the Lough Foyle SPA (UK), Lough Foyle SPA (IE), Wexford Harbour and Slobs SPA and the Ribble and Alt Estuaries SPA (see Table 4-4).

Breeding

Bewick's swan does not breed in Ireland. They breed across low-lying open grassy or swampy tundra of Arctic Siberia adjacent to pools, lakes or rivers.

Therefore, the potential for likely significant effects can be excluded for the four SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Chough (*Pyrrhocorax pyrrhocorax*)

Nine coastal European sites have chough as a SCI within the ZoI of the Project (see Table 4-4). The closest site is Glannau Aberdaron ac Ynys Enlli SPA, which is located 139.6 km from the Project.

Foraging

Chough is a year round resident species in Ireland, often found in coastal locations. This species feeds primarily on insects and their larvae, worms and other subterranean invertebrates, using their curved bills to dig them out of the soil. They will also eat berries, grain, small mammals and birds and, similar to other crow species, anything else they can find[64]. A study in southwest Ireland found that birds spent 95% of their time foraging within 1.3 km of the nest (Gray *et al.,* 2003). It does not forage far or winter from its breeding location. Therefore, there is no potential for connectivity for this species between the Project and the nine European sites for which it is designated, as they are all considered to be outside the foraging range for this species (all sites are located > 139.6 km from the Project).

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the nine European sites for which this species is designated (see Table 4-4).

Breeding

Chough nest in caves or crevices along coasts and, less frequently, in old buildings. They require isolated coastal areas for breeding, surrounded by enough suitable, short-sward, foraging territory. This includes a relatively wide variety of habitats, from cultivated land and highly fertilised pasture to semi-natural habitats such as heath and coastal dune systems (Carroll *et al.,* 2010; Robertson *et al.,* 1995).

The closest designated site is Glannau Aberdaron ac Ynys Enlli SPA, located approximately 140 km from the Project. Studies of breeding chough in north Wales have found that most of their foraging flights (95%) are within 1 km of the nest (Whitehead *et al.,* 2005).

Therefore, the potential for likely significant effects can be excluded for the nine SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Corncrake (*Crex crex*)

Corncrake is a SCI of three European sites identified within the ZoI of the Project (see Table 4-4), all of which are located over 180 km from the Project.

Foraging

Corncrake forage primarily on animal matter, with about one fifth of their diet from plant matter. They mainly consume insects, but also eat slugs, snails and earthworms, while the plant part of their diet includes seeds of grasses and sedges[65]. Corncrake forage close to their roosting sites. Bright *et al.* (2008) identified a foraging buffer zone of only 1.5 km around roosting zones of corncrakes. Therefore, there is no potential for connectivity sites for this species or for birds from the SPA breeding populations associated with the three European sites for which this species is designated (all located > 180 km from the Project) to be present in the Project area during the breeding season.

As such, likely significant effects upon this SCI species can be excluded at the screening stage for the Inishbofin, Inishdooey and Inishbeg SPA, West Donegal Islands SPA and Tory Island SPA (see Table 4-4) for which this bird is designated.

Breeding

Corncrake is found only in Donegal, Galway, Mayo and Sligo, with just a couple of pairs on the Shannon Callows. They are mostly found in grassland habitats near to the coast and on offshore islands. The current population is probably between 150 and 200 pairs (NPWS, unpublished data). The essential characteristic of preferred vegetation is that it is tall enough throughout the breeding cycle to conceal the birds (>20 cm in height from mid-April onwards) and that it retains an open structure as the season progresses (Tyler 1996; Green 1996).

[64] Birdwatch Ireland: Chough. Available at: https://birdwatchireland.ie/birds/chough/

[65] Birdwatch Ireland: Corncrake. Available at: https://birdwatchireland.ie/birds/corncrake

The three SPAs identified in Table 4-1, as sites designated for Corncrake, all support breeding colonies for this species. However, as the Project is not within the foraging range of these SPAs, no likely significant effects are predicted for the breeding colonies.

Therefore, the potential for likely significant effects can be excluded for the three SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Golden eagle (*Aquila chrysaetos*)

Golden eagle is a SCI of one European site identified within the ZoI of the Project (see Table 4-4), Rum SPA. The Rum SPA is located 338.1 km from the Project.

Foraging

Golden eagle is Ireland's largest raptor, which, after becoming extinct in the state, was reintroduced into County Donegal in 2001. It actively hunts a wide variety of larger birds including grouse, crows and gulls, as well as mammals such as rabbits and young foxes. It will also eat carrion[66]. The maximum foraging range during breeding season for this designated species is 9 km (NatureScot, 2016). Consequently, there is no potential for connectivity for this species and for birds from the SPA breeding population associated with Rum SPA (located 338.1 km from the Project) to be present in the Project area during the breeding season.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for Rum SPA (see Table 4-4).

Breeding

Golden eagle has been re-introduced into County Donegal to re-establish an Irish breeding population. However, there is currently no known breeding population in Ireland. Around 400 pairs breed in Scotland.

Therefore, the potential for likely significant effects can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Grey heron (*Ardea cinerea*)

Grey Heron is a SCI of two European Sites identified within the ZoI of the Project (see Table 4-4), Wexford Harbour and Slobs SPA and Lough Swilly SPA. The closest is Lough Swilly SPA, located 141.8 km from the Project.

Foraging

Grey heron are found in wetlands, estuaries and along rivers throughout Ireland. They feed on fish, amphibians, small mammals, insects and reptiles[67]. Studies have found that grey herons regularly forage at distance ranges of up to 20 km, particularly if distant foraging areas offer profitable prey species (Manikowska-Ślepowrońska *et al.,* 2016). Therefore, there is no potential for connectivity for this species and for birds from the SPA wintering populations associated with the two European sites for which this species is designated to be present in the Project area during the wintering season.

As such, likely significant effects upon this SCI species can be excluded at the screening stage for Wexford Harbour and Slobs SPA and Lough Swilly SPA (see Table 4-4).

Breeding

Grey heron are resident at wetlands, estuaries and along rivers throughout Ireland and are widely distributed. They breed in large trees and can form large heronries, some of which have been in use for over 100 years. They are found in the same wetland habitats during the winter as in the breeding season.

[66] Birdwatch Ireland: Golden eagle. Available at: https://birdwatchireland.ie/birds/golden-eagle

[67] Birdwatch Ireland: Grey heron. Available at: https://birdwatchireland.ie/birds/grey-heron

As this species is not designated for breeding, no likely significant effects are predicted.

Therefore, the potential for likely significant effects can be excluded for the two SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Hen harrier (*Circus cyaneus*)

Hen Harrier is a SCI of one European Site identified within the ZoI of the Project (see Table 4-4), Wexford Harbour and Slobs SPA. The Wexford Harbour and Slobs SPA is located 150.8 km from the Project.

Foraging

Hen harrier feed on small birds and mammals, which are caught by surprise. They will sometimes use cover, such as woodland edges and bushes, to surprise their prey[68]. The maximum foraging range during breeding season for this designated species is 10 km (NatureScot, 2016). Therefore, there is no potential for connectivity for this species with the Project and for birds from the SPA post-breeding/roosting population associated with Wexford Harbour and Slobs SPA (located 150.8 km from the Project) to be present in the Project area as this SPA is considered to be outside the foraging range of this species.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for Wexford Harbour and Slobs SPA (see Table 4-4).

Breeding

There are currently an estimated maximum of 106 breeding pairs (i.e., 85 confirmed, 21 possible) in the Republic of Ireland (Ruddock *et al.,* 2024) with a further 59 in Northern Ireland (Hayhow *et al.,* 2013). Hen harrier breeding birds are confined largely to heather moorland and young forestry plantations, where they nest on the ground. Hen Harrier are found mainly in counties Laois, Tipperary, Cork, Clare, Limerick, Galway, Monaghan, Cavan, Leitrim, Donegal and Kerry. Hen Harriers mainly hunt over moorland whilst breeding where they take small ground nesting birds and mammals. No pathway for impacts are deemed likely between the Project and the relevant SPA.

Therefore, the potential for likely significant effects can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Peregrine falcon (*Falco peregrinus*)

Peregrine is a SCI of six European sites identified within the ZoI of the Project (see Table 4-4). Rathlin Island SPA is the closest, located 145.4 km north of the Project.

Foraging

Peregrine falcon is a raptor that preys mainly upon birds, including pigeons, thrushes, waders, gulls and seabirds, usually taken in the air and sometimes on the ground or on water[69]. The maximum foraging range during breeding season for this designated species is 18 km (NatureScot, 2016). Therefore, there is no potential for connectivity for this species and for birds from the SPA populations associated with the six European sites for which this species is designated (all located > 145.4 km from the Project) to be present in the Project area during the breeding or wintering season.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the six European sites for which this species is designated (see Table 4-4).

[68] Birdwatch Ireland: Hen harrier. Available at: https://birdwatchireland.ie/birds/hen-harrier

[69] Birdwatch Ireland: Peregrine. Available at: https://birdwatchireland.ie/birds/peregrine

Breeding

Peregrine falcon breed on coastal and inland cliffs. Most birds on the coast breed on the south, west and north coasts, coastal breeding on the east coast is limited by the availability of suitable nesting cliffs. Most inland birds breed on mountain cliffs but will also breed at lower levels.

As the Project does not interfere with breeding locations on the cliffs of the SPAs listed in Table 4-4, no likely significant effects are predicted.

Therefore, the potential for likely significant effects can be excluded for the six SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Short-eared owl (*Asio flammeus*)

Short-eared owl is a SCI of one European sites identified within the ZoI of the Project (see Table 4-4); Skomer, Skokholm and the Seas off Pembrokeshire SPA, which is located over 235 km from the Project, in Wales.

Foraging

Short-eared owl favour uplands and coastal lowlands. They hunt during the day and forage on small mammals, frogs and birds[70]. The maximum foraging range during breeding season for this species is 5 km (NatureScot, 2016). Therefore, there is no potential for connectivity for the species and for birds from the SPA breeding population associated with Skomer, Skokholm and the Seas off Pembrokeshire SPA (located 236.9 km from the Project) to be present in the Project area during the breeding season.

As such, likely significant effects upon this SCI species can be excluded at the screening stage for Skomer, Skokholm and the Seas off Pembrokeshire SPA (see Table 4-4).

Breeding

Short-eared owl breeding sites are rare and sporadic in uplands throughout Ireland. The majority of the European population breeds in Scandinavia and Russia.

Therefore, the potential for likely significant effects can be excluded for the one SPA within the ZoI of the Project (see Table 4-4) for which this bird is designated.

Whooper swan (*Cygnus cygnus*)

Whooper swan is a SCI of six European sites identified within the ZoI of the Project (see Table 4-4). The closest is Lough Foyle SPA (UK), located 136.7 km from the Project.

Foraging

Whooper swan forage primarily on aquatic vegetation in wetlands, however they are also commonly found grazing on agricultural grasslands and fields where there is spilled grain or potatoes from cultivated land[71]. The maximum foraging range during winter season for this species is < 5 km (NatureScot, 2016). Therefore, there is no potential for connectivity for this species and for birds from the SPA wintering populations associated with the six SPAs for which this species is designated to be present in the Project area during the wintering season.

On this basis, likely significant effects upon this SCI species can be excluded at the screening stage for the six SPAs for which this species is designated (see Table 4-4).

[70] Birdwatch Ireland: Short-eared owl. Available at: https://birdwatchireland.ie/birds/short-eared-owl

[71] Birdwatch Ireland: Whooper swan. Available at: https://birdwatchireland.ie/birds/whooper-swan

Breeding

The whooper swans that are present in Ireland each winter nest in Iceland during the summer. Each year a small number of whooper swans stay in Ireland for the summer and there have been occasional breeding records on lakes in the midlands and northwest.

Therefore, the potential for likely significant effects can be excluded for the six SPAs within the ZoI of the Project (see Table 4-4) for which this bird is designated.

4.4.7.4 Wetland and Waterbirds

Wetland and Waterbirds [A999] is a feature of four of the SPAs screened within 50 km of the Project and is a feature of six SPAs >50 km from the Project. The CO for these wetlands is to maintain the favourable conservation condition of the wetland habitat in the respective SPA sites as a resource for the regularly occurring migratory waterbirds that utilise it. Table 4-2 lists the SPAs which have the 'Wetland and Waterbirds [A999]' as a SCI in ascending order of distance from the Project.

Table 4-2: SPAs with wetland habitat potentially susceptible to water quality effects.

Site name (code)	Closest Distance from the Project (km)
Dundalk Bay SPA (IE000455)	0.7
Carlingford Lough SPA (IE004078)	5.7
Boyne Estuary SPA (IE004080)	10.2
River Nanny Estuary and Shore SPA (IE004158)	16.6
Lough Swilly SPA (IE004075)	142.2
Lough Foyle SPA (IE004087)	142.7
Wexford Harbour and Slobs SPA (IE004076)	150.8
The Raven SPA (IE004019)	156.5
Blacksod Bay/Broad Haven SPA (IE004037)	215.6
Ballymacoda Bay SPA (IE004023)	234

In relation to the CO for wetland habitat, NPWS CO supporting documents for SPAs note that for the wetland to be in favourable condition, the permanent area occupied by the wetland habitat should be stable and not significantly less than the target area cited for each SPA, other than that occurring from natural patterns of variation. Whilst the maintenance of the 'quality' of wetland habitat lies outside the scope of the wetland habitat objective (as stated by NPWS in site specific CO supporting documents for wetland SPA sites), for the species of SCI the scope of the population trend and distribution objective covers the need to maintain, or improve where appropriate, the different properties of the wetland habitats contained within the SPA.

The wetland habitats can be categorised into three broad types: subtidal; intertidal and supratidal, and that over time and though natural variation these sub-components of the overall wetland complex may vary due to factors such as changing rates of sedimentation, erosion etc. Many waterbird species will use more than one of the habitat types for different reasons throughout the tidal cycle.

Upon assessment, a pathway has been identified between wetland habitat and the Project. Therefore, likely significant effects as a result of water pollution (marine) upon wetland habitats which occur at or below the HWM, cannot be excluded at the screening stage, in the absence of mitigation.

4.5 In-combination Assessment

The in-combination assessment considers the impact associated with the Project together with other projects and plans. The projects and plans selected as relevant to the in-combination assessment have been considered on a case-by-case basis based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.

The approach to in-combination examines the potential for likely significant effects of the Project alongside the following projects if they fall within the ZoI for relevant European sites (see Table 4-3 and Table 4-4) considered in this Stage 1 appraisal:

- Other projects with consent but not yet constructed/construction not completed:
- Other projects in a consent application process but not yet determined (including planning applications, foreshore lease/licence applications, Dumping at Sea Permit applications;
- Other projects currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact;
- Projects, which satisfy the definition of 'relevant maritime usage' under the Maritime Area Planning Act (2021) (i.e., wind farm projects designated as 'Relevant Projects' or 'Phase 1 Projects') including Arklow Bank II, Bray Bank and Kish Bank; North Irish Sea Array, Codling Wind Park (I and II); and
- Other projects that the Applicant is partner in developing or projects that the Applicant has knowledge of proposals for development.

4.5.1 Plans

The following plans were deemed relevant to the Project. Plans identified include:

- Third Cycle Draft River Basin Management Plan 2022-2027;
- National Development Plan 2018-2027;
- Climate Action Plan 2023 (and Draft Climate Action Plan 2024);
- National Energy and Climate Plan 2021-2030;
- Offshore Renewable Energy Development Plan (OREDP) I (and draft OREDP II);
- Designated Maritime Area Plan (DMAP) Proposal for Offshore Renewable Energy (and Draft DMAP);
- Marine Plan for Northern Ireland;
- Project Ireland 2040 – National Planning Framework;
- National Marine Planning Framework (NMPF) 2021;
- National Biodiversity Action Plan 2023-2030; and
- Louth County Development Plan 2021-2027.

Plans do not generally identify specifics of arising development, therefore it is difficult to identify LSEs. The above listed plans will encompass the offshore environment. However, these plans identify several protective measures for the management of the marine area and contain either policies or frameworks that are considered development proposals. For this reason, they have been listed due to the potential for spatial conflict with the Project. As such, it is therefore not possible to rule out in-combination impacts at the Stage 1 Screening Appraisal.

4.5.2 Projects

A search was conducted of planning applications (projects) which were deemed relevant to the Project. Several consented and proposed projects within the vicinity of the Project have the potential to result in in-combination impacts such as, other offshore wind farm projects, residential developments and agricultural developments. These projects have the potential for in-combination effects due to the potential for overlap or sequence either temporally or spatially as a result of construction and operational periods. These projects

therefore have the potential to result in disturbances and water pollution (particularly within the marine environment) which provide connectivity to European sites; however, such applications either were or will be subject to statutory processes and commitments required in the specific grant of planning permission. As LSEs for the Project cannot be ruled out at this stage (see Table 5-1 and Table 5-2), it is therefore not possible to rule out in-combination impacts at the Stage 1 Screening Appraisal.

4.5.3 In-combination conclusion

It is not possible at this stage to conclude no in combination effects with other plans or projects, therefore potential LSEs associated with Project and other plans and projects, cannot be ruled out.

4.6 Key findings

4.6.1 Summary of stage 1 screening appraisal for SACs

From the findings of the screening stage appraisal presented, the possibility of Likely Significant Effects could not be excluded for 20 QIs of 16 European sites. Table 4-3 summarises the result of the screening appraisal for SACs.

Table 4-3: Summary of Stage 1 Screening Appraisal for SACs.

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Annex I Habitats					
Alkaline fens [7230]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
	River Boyne And River Blackwater SAC (IE002299)	Out	No connectivity		14.6/12.3/23.4
Alpine and Boreal heaths [4060]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Annual vegetation of drift lines [1210]	Carlingford Shore SAC (IE002306)	In	-	Water pollution (marine)	26.3/14.8/4.4
Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]	Dundalk Bay SAC (IE0000455)	In	-	Water pollution (marine)	10.1/3.3/9.3
	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
	Murlough SAC (UK0016612)	In	-	Water pollution (marine)	50.0/37.9/22.0
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Calcareous rocky slopes with chasmophytic vegetation [8210]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Embryonic shifting dunes [2110]	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
	Murlough SAC (UK0016612)	In	-	Water pollution (marine)	50.0/37.9/22.0
Estuaries [1130]	Dundalk Bay SAC	In	-	Water pollution (marine)	10.1/3.3/9.3
	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
	Slaney River Valley SAC (IE000781)	Out	No connectivity		94.4/93.4/102.1
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
European dry heaths [4030]	Clogher Head SAC (IE00145)	Out	No connectivity		19.5/5.3/13.1
	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	Boyne Coast and Estuary SAC (IE001957)	Out	No connectivity		20.0/8.6/17.3
	Murlough SAC (UK0016612)	Out	No connectivity		50.0/37.9/22.0
Mediterranean salt meadows (*Juncetalia maritimae*) [1410]	Dundalk Bay SAC (IE0000455)	In	-	Water pollution (marine)	10.1/3.3/9.3
	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
Mudflats and sandflats not covered by seawater at low tide [1140]	Dundalk Bay SAC (IE0000455)	In	-	Water pollution (marine)	10.1/3.3/9.3
	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
	Murlough SAC (UK0016612)	In		Water pollution (marine)	50.0/37.9/22.0
	Slaney River Valley SAC (IE000781)	Out	No connectivity		94.4/93.4/102.1
	Saltee Islands SAC (IE00070)	Out	No connectivity		190.3/188.9/196.3
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Northern Atlantic wet heaths with *Erica tetralix* [4010]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Perennial vegetation of stony banks [1220]	Dundalk Bay SAC (IE0000455)	Out	No connectivity		10.1/3.3/9.3
	Carlingford Shore SAC (IE002306)	Out	No connectivity		26.3/14.8/4.4
Salicornia and other annuals colonising mud and sand [1310]	Dundalk Bay SAC (IE0000455)	In	-	Water pollution (marine)	10.1/3.3/9.3
	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]	Boyne Coast and Estuary SAC (IE001957)	In	-	Water pollution (marine)	20.0/8.6/17.3
	Murlough SAC (UK0016612)	In	-	Water pollution (marine)	50.0/37.9/22.0
Siliceous rocky slopes with chasmophytic vegetation [8220]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Transition mires and quaking bogs [7140]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	Clogher Head SAC (IE00145)	Out	No connectivity		19.5/5.3/13.1
	Lambay Island SAC (000204)	Out	No connectivity		50.9/40.9/43.1
	Saltee Islands SAC (IE00070)	Out	No connectivity		190.3/188.9/196.3
Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* Vegetation [3260]	Slaney River Valley SAC (IE000781)	Out	No connectivity		94.4/93.4/102.1
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	Slaney River Valley SAC (IE000781)	Out	No connectivity		94.4/93.4/102.1
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]	Slaney River Valley SAC (IE000781)	Out	No connectivity		94.4/93.4/102.1
	River Boyne And River Blackwater SAC (IE002299)	Out	No connectivity		14.6/12.3/23.4
Blanket bogs [7130]	Carlingford Mountain SAC (IE000543)	Out	No connectivity		22.9/17.3/9.9
Reefs [1170]	Rockabill to Dalkey Island SAC (IE003000)	In	-	Water pollution (marine)	39.9/28.4/30.6

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Lambay Island SAC (000204)	In	-	Water pollution (marine)	50.9/40.9/43.1
	Saltee Islands SAC (IE00070)	Out	No connectivity		190.3/188.9/196.3
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	Out	No connectivity		208.5/198.8/196.5
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Large shallow inlets and bays [1160]	Saltee Islands SAC (IE00070)	Out	No connectivity		190.3/188.9/196.3
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Submerged or partially submerged sea caves [8330]	Saltee Islands SAC (IE00070)	Out	No connectivity		190.3/188.9/196.3
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	Out	No connectivity		208.5/198.8/196.5
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)	Murlough SAC (UK0016612)	Out	No connectivity		50.0/37.9/22.0
Dunes with Salix repens ssp. Argentea (*Salicion arenariae*) [2170]	Murlough SAC (UK0016612)	Out	No connectivity		50.0/37.9/22.0
Sandbanks which are slightly covered by sea water all the time [1110]	Murlough SAC (UK0016612)	In	-	Water pollution (marine)	50.0/37.9/22.0
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	Out	No connectivity		208.5/198.8/196.5
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Coastal lagoons [1150]	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Large shallow inlets and bays [1160]	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	No connectivity		157.9/145.3/139.3
Annex II Flora					
Shore dock (*Rumex rupestris*) [1441]	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Annex II Marine Mammal Species					
Bottlenose Dolphin (*Tursiops truncatus*) [1349]	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	In	-	Injury and/or disturbance from underwater noise during pile-driving; Injury and/or disturbance from vessel and other construction activities; and Changes in the fish and shellfish community affecting prey resources	157.9/145.3/139.3
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	In	-		208.5/198.8/196.5
Grey Seal (*Halichoerus grypus*) [1364]	Lambay Island SAC (IE000204)	In	-	Injury and/or disturbance from underwater noise during pile-driving; Injury and/or disturbance from vessel and other construction activities; and Changes in the fish and shellfish community affecting prey resources	50.9/40.9/43.1
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	In	-		157.9/145.3/139.3
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	In	-		208.5/198.8/196.5
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	In	-		223.4/216.8/219.3
	Saltee Islands SAC (IE00070)	Out	No connectivity		190.3/188.9/196.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Harbour porpoise (*Phocoena phocoena*) [1351]	Rockabill to Dalkey Island SAC (IE003000)	In	-	Injury and/or disturbance from underwater noise during pile-driving; Injury and/or disturbance from vessel and other construction activities; and Changes in the fish and shellfish community affecting prey resources	39.9/28.4/30.6
	Lambay Island SAC (IE000204)	In	-		50.9/40.9/43.1
	North Channel SAC (UK0030399)	In	-		79.2/64.6/47.8
	North Anglesey Marine/Gogledd Môn Forol SAC (UK0030398)	In	-		83.5/67.0/56.0
	Codling Fault Zone SAC (IE003015)		-		78.1/65.8/63
	West Wales Marine/Gorllewin Cymru Forol SAC (UK0030397)	In	-		155.2/142.0/136.0
	Blackwater Bank SAC (IE002953)	In	-		149.3/145.3/151
Harbour Seal (*Phoca vitulina*) [1365]	Murlough SAC (UK0016612)	In	-	Injury and/or disturbance from underwater noise during pile-driving; Injury and/or disturbance from vessel and other construction activities; and Changes in the fish and shellfish community affecting prey resources	50.0/37.9/22.0
	Lambay Island SAC (000204)	In	-		50.9/40.9/43.1
	Slaney River Valley SAC (IE000781)	In	-		94.4/93.4/102.1
Annex II terrestrial and freshwater mammal species					
Otter *(Lutra lutra)* [1355]	River Boyne And River Blackwater SAC (IE002299)	In	-	Water pollution (freshwater) Disturbance (noise, vibration and human presence) Prey resources available	14.6/12.3/23.4
	Slaney River Valley SAC (IE000781)	Out	Distance greater than 40 km foraging range.		94.4/93.4/102.1
	Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)	Out	Distance greater than 40 km foraging range.		157.9/145.3/139.3
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	Distance greater than 40 km foraging range.		223.4/216.8/219.3
Annex II Fish Species					

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Atlantic Salmon (*Salmo salar*) [1106]	Slaney River Valley SAC (IE000781)	In	-	Water pollution (i.e., suspended sediments); Injury and/or disturbance (i.e., noise, vibration and electromagnetic fields); Temporary and long-term subtidal habitat loss/disturbance	94.4/93.4/102.1
	River Boyne And River Blackwater SAC (IE002299)	In	-		14.6/12.3/23.4
River Lamprey (*Lampetra fluviatilis*) [1099]	River Boyne And River Blackwater SAC (IE002299)	In	-	Water pollution (i.e., suspended sediments); Injury and/or disturbance (i.e., noise, vibration and electromagnetic fields); Temporary and long-term subtidal habitat loss/disturbance	14.6/12.3/23.4
	Slaney River Valley SAC (IE000781)	In	-	Water pollution (i.e., suspended sediments); Injury and/or disturbance (i.e., noise, vibration and electromagnetic fields); Temporary and long-term subtidal habitat loss/disturbance	94.4/93.4/102.1
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	Out	No connectivity		208.5/198.8/196.5
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Sea Lamprey (*Petromyzon marinus*) [1095]	Slaney River Valley SAC (IE000781)	In	-	Water pollution (i.e., suspended sediments); Injury and/or disturbance (i.e., noise, vibration and electromagnetic fields); Temporary and long-term subtidal habitat loss/disturbance	94.4/93.4/102.1
	Cardigan Bay/Bae Ceredigion SAC (UK0012712)	Out	No connectivity		208.5/198.8/196.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway (s)	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Twaite Shad (*Alosa fallax fallax*) [1103]	Slaney River Valley SAC (IE000781)	In	-	Water pollution (i.e., suspended sediments); Injury and/or disturbance (i.e., noise, vibration and electromagnetic fields); Temporary and long-term subtidal habitat loss/disturbance	94.4/93.4/102.1
	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Brook Lamprey (*Lampetra planeri*) [1096]	Slaney River Valley SAC (IE000781)	Out	No connectivity		94.4/93.4/102.1
Allis shad (*Alosa alosa*) [1102]	Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)	Out	No connectivity		223.4/216.8/219.3
Annex II Invertebrates					
Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]	Slaney River Valley SAC (IE000781)	In	-	Effects on host species (Atlantic salmon) as a result of water pollution and injury and/or disturbance	94.4/93.4/102.1
Marsh Fritillary (*Euphydryas aurinia*) [1065]	Murlough SAC (UK0016612)	Out	Outside 5-20 km foraging and dispersal range		50.0/37.9/22.0

4.6.2 Summary of stage 1 screening appraisal for SPAs

From the findings of the screening stage appraisal presented, the possibility of Likely Significant Effects could not be excluded for 47 SCIs (including wetlands and waterbirds) of 54 European sites. As detailed in section 4.4.7, all migrating birds are being scoped in for further assessment without specifying the SPAs for which they are an SCI feature. Table 4-4 summarises only, the result of the screening appraisal for SPAs in relation to foraging and breeding and/or wintering behaviour of SCI birds.

Table 4-4: Summary of Stage 1 Screening Appraisal for SPAs.

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Birds Directive Special Conservation Interest					
Arctic Tern (*Sterna paradisaea*) [A194]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Rockabill SPA (IE004014)	In	-	Foraging	38.9/26.9/28.5
	Deenish Island and Scariff Island SPA (IE004175)	Out	Outside foraging range; no interference with breeding locations.	-	342.6/342.8/365.8
	South Dublin Bay and Tolka Estuary SPA (IE004024)	Out	Outside foraging range; no interference with breeding locations.	-	58.3/52.8/59.0
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Inishbofin, Inishdooey and Inishbeg SPA (IE004083)	Out	Outside foraging range; no interference with breeding locations.	-	180.4/180.9/190.6
	Illancrone and Inishkeeragh SPA (IE004132)	Out	Outside foraging range; no interference with breeding locations.	-	174.8/175.2/189.6
	Inishmurray SPA (IE004068)	Out	Outside foraging range; no interference with breeding locations.	-	153.1/153.4/174.8
	Inishglora and Inishkeeragh SPA (IE004084)	Out	Outside foraging range; no interference with breeding locations.	-	239.2/239.6/264.1
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
	Lady's Island Lake SPA (IE004009)	Out	Outside foraging range; no interference with breeding locations.	-	182.8/180.3/186.9
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations.	-	144.1/145.9/145.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Strangford Lough SPA (UK9020111)	Out	Outside foraging range; no interference with breeding locations.	-	75.0/64.8/49.4
	Copeland Islands SPA (UK9020291)	Out	Outside foraging range; no interference with breeding locations.	-	109.8/101.5/86.8
	Outer Ards SPA (UK9020271)	Out	Outside foraging range; no interference with breeding locations.	-	84.6/72.5/56.1
	Anglesey Terns SPA (UK9013061) (breeding)	Out	Outside foraging range; no interference with breeding locations.	-	121.1/105.2/95.2
Barnacle Goose (*Branta leucopsis*) [A045]	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	Duvillaun Islands SPA (IE004111)	Out	Outside foraging range; no interference with breeding locations	-	238.2/238.6/263.7
	Inishtrahull SPA (IE004100)	Out	Outside foraging range; no interference with breeding locations	-	180.0/180.5/179.9
	Inishbofin, Inishdooey and Inishbeg SPA (IE004083)	Out	Outside foraging range; no interference with breeding locations	-	180.4/180.9/190.6
	West Donegal Islands SPA (IE004230)	Out	Outside foraging range; no interference with breeding locations	-	180.4/180.8/192.9
	Illancrone and Inishkeeragh SPA (IE004132)	Out	Outside foraging range; no interference with breeding locations	-	174.8/175.2/189.6
	Roaninish SPA (IE004121)	Out	Outside foraging range; no interference with breeding locations	-	172.3/172.7/188.1
	Inishmurray SPA (IE004068)	Out	Outside foraging range; no interference with breeding locations	-	153.1/153.4/174.8
	Ardboline Island and Horse Island SPA (IE004135)	Out	Outside foraging range; no interference with breeding locations	-	151.1/151.5/173.9

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Inishglora and Inishkeeragh SPA (IE004084)	Out	Outside foraging range; no interference with breeding locations	-	239.2/239.6/264.1
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations	-	241.2/241.6/266.5
	Shiant Isles SPA (UK9001041)	Out	Outside foraging range; no interference with breeding locations	-	445.3/445.4/435.8
Bar-tailed Godwit (*Limosa lapponica*) [A157]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Mersey Narrows and North Wirral Foreshore SPA (UK9020287)	Out	Outside foraging range; no interference with breeding locations.	-	223.4/206.8/194.7
Bewick's Swan (Cygnus columbianus bewickii) [A037]	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE 004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	North-west Irish Sea SPA (IE004236)	In	-	Foraging Breeding	16.6/0/3.4
	Dundalk Bay SPA (IE0004026)	In	-	Foraging Breeding	10.1/0.7/8.0
	Wexford Harbour and Slobs SPA (IE004076)	In	-	Breeding	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	In	-	Breeding	141.8/142.2/148.3
	Greers Isle SPA (IE004082)	In	-	Breeding	169.1/169.5/175.2
	Ballymacoda Bay SPA (IE004023)	In	-	Breeding	234.0/234.1/249.3
	Lady's Island Lake SPA (IE004009)	In	-	Breeding	182.8/180.3/186.9
	Dalkey Islands SPA (IE004172)	In	-	Breeding	69.9/63.0/67.6
	The Murrough SPA (IE004186)	In	-	Breeding	89.2/82.7/86.9
	Lough Foyle SPA (IE004087)	In	-	Breeding	142.3/142.7/145.1
	Seas off Wexford SPA (IE004237)	In	-	Breeding	144.1/145.9/145.0
	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Black-tailed Godwit (*Limosa limosa*) [A156]	Boyne Estuary SPA (IE004080)	In	-	Foraging	19.6/10.2/18.5
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Chough (*Pyrrhocorax pyrrhocorax*) [A346]	Glannau Aberdaron ac Ynys Enlli SPA (UK9013121)	Out	Outside foraging range; no interference with breeding locations.	-	156.5/144.2/139.6
	West Donegal Coast SPA (IE004150)	Out	Outside foraging range; no interference with breeding locations.	-	158.7/159.0/177.9
	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	Mid-Waterford Coast SPA (IE004193)	Out	Outside foraging range; no interference with breeding locations.	-	195.9/195.9/207.2
	Helvick Head to Ballyquin SPA (IE004192)	Out	Outside foraging range; no interference with breeding locations.	-	211.7/211.7/225.4
	Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)	Out	Outside foraging range; no interference with breeding locations.	-	243.9/236.9/238.9
	North Colonsay and Western Cliffs SPA (UK9003171)	Out	Outside foraging range; no interference with breeding locations	-	247.4/247.1/236.8

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Iveragh Peninsula SPA (IE004154)	Out	Outside foraging range; no interference with breeding locations	-	308.0/308.3/331.9
	Beara Peninsula SPA (IE004155)	Out	Outside foraging range; no interference with breeding locations	-	332.4/332.6/354.6
Common Gull (*Larus canus*) [A182]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Inishtrahull SPA (IE004100)	Out	Outside foraging range; no interference with breeding locations.	-	180.0/180.5/179.9
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Greers Isle SPA (IE004082)	Out	Outside foraging range; no interference with breeding locations.	-	169.1/169.5/175.2
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Inishbofin, Inishdooey and Inishbeg SPA (IE004083)	Out	Outside foraging range; no interference with breeding locations.	-	180.4/180.9/190.6
	West Donegal Islands SPA (IE004230)	Out	Outside foraging range; no interference with breeding locations.	-	180.4/180.8/192.9
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
Common Scoter (*Melanitta nigra*) [A065]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	The Raven SPA (IE004019)	Out	Outside foraging range; no interference with breeding locations.	-	159.4/156.5/162.9
	Liverpool Bay SPA (UK9020294)	Out	Outside foraging range; no interference with breeding locations.	-	154.7/138.5/127.7
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations.	-	144.1/145.9/145.0
Common Tern (*Sterna hirundo*) [A193]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Rockabill SPA (IE004014)	In	-	Foraging Breeding	38.9/26.9/28.5
	Carlingford Lough SPA (UK9020161)	In	-	Foraging Breeding	31.6/20.6/7.4
	South Dublin Bay and Tolka Estuary SPA (IE004024)	Out	Outside foraging range; no interference with breeding locations.	-	58.3/52.8/59.0
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Illancrone and Inishkeeragh SPA (IE004132)	Out	Outside foraging range; no interference with breeding locations.	-	174.8/175.2/189.6
	Lady's Island Lake SPA (IE004009)	Out	Outside foraging range; no interference with breeding locations.	-	182.8/180.3/186.9
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Strangford Lough SPA (UK9020111)	Out	Outside foraging range; no interference with breeding locations.	-	75.0/64.8/49.4
	Anglesey Terns SPA (UK9013061)	Out	Outside foraging range; no interference with breeding locations.	-	121.1/105.2/95.2
	Glas Eileanan SPA (UK9003211)	Out	Outside foraging range; no interference with breeding locations.	-	297.5/295.8/284.5
	Liverpool Bay SPA (UK9020294)	Out	Outside foraging range; no interference with breeding locations.	-	154.7/138.5/127.7
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
	Mersey Narrows and North Wirral Foreshore SPA (UK9020287)	Out	Outside foraging range; no interference with breeding locations.	-	223.4/206.8/194.7
	Larne Lough SPA (UK9020221)	Out	Outside foraging range; no interference with breeding locations.	-	113.3/107.3/94.0
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
Coot (*Fulica atra*) [A125]	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
Cormorant (*Phalacrocorax carbo*) [A017]	North-west Irish Sea SPA (IE004236)	In	-	Foraging Breeding	16.6/0/3.4
	Skerries Island SPA (IE004122)	In	-	Foraging Breeding	40.6/30.1/33.1
	Lambay Island SPA (IE004069)	Out	Outside foraging range; no interference with breeding locations.	-	50.5/40.4/42.7

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Ireland's Eye SPA (IE004117)	Out	Outside foraging range; no interference with breeding locations.	-	57.3/48.9/52,7
	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	Helvick Head to Ballyquin SPA (IE004192)	Out	Outside foraging range; no interference with breeding locations.	-	211.7/211.7/225.4
	West Donegal Coast SPA (IE004150)	Out	Outside foraging range; no interference with breeding locations.	-	158.7/159.0/177.9
	The Raven SPA (IE004019)	Out	Outside foraging range; no interference with breeding locations.	-	159.4/156.5/162.9
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Keeragh Islands SPA (IE004118)	Out	Outside foraging range; no interference with breeding locations.	-	184.8/184.0/192.4
	Mid-Waterford Coast SPA (IE004193)	Out	Outside foraging range; no interference with breeding locations.	-	195.9/195.9/207.2
	Sovereign Islands SPA (IE004124)	Out	Outside foraging range; no interference with breeding locations.	-	275.6/275.7/292.9
	Ardboline Island and Horse Island SPA (IE004135)	Out	Outside foraging range; no interference with breeding locations.	-	151.1/151.5/173.9
	Inishglora and Inishkeeragh SPA (IE004084)	Out	Outside foraging range; no interference with breeding locations.	-	239.2/239.6/264.1
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations		144.1/145.9/145.0
	Sheep Island SPA (UK9020021)	Out	Outside foraging range; no interference with breeding locations.	-	154.5/154.5/145.6

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Puffin Island SPA (UK9020285)	Out	Outside foraging range; no interference with breeding locations.	-	174.5/158.4/147.8
Corncrake (*Crex crex*) [A122]	Inishbofin, Inishdooey and Inishbeg SPA (IE004083)	Out	Outside foraging range; no interference with breeding locations.		180.4/180.9/190.6
	West Donegal Islands SPA (IE004230)	Out	Outside foraging range; no interference with breeding locations		180.4/180.8/192.9
	Tory Island SPA [IE004073];	Out	Outside foraging range; no interference with breeding locations		189.1/189.6/198.6
Curlew (*Numenius arquata*) [A160]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Dunlin (*Calidris ariti*) [A149]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Eider (*Somateria mollissima*) [A063]	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.		142.3/142.7/145.1
Fulmar (*Fulmarus glacialis*) [A009]	North-west Irish Sea SPA (IE004236)	In	-	Breeding	16.6/0/3.4
	Lambay Island SPA (IE004069)	In	-	Breeding	50.5/40.4/42.7

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Seas off Wexford SPA (IE004237)	In	-	Breeding	144.1/145.9/145.0
	Saltee Islands SPA (IE004002)	In	-	Breeding	190.3/188.9/196.3
	Horn Head to Fanad Head SPA (IE004194)	In	-	Breeding	161.9/162.4/167.1
	Tory Island SPA (IE004073)	In	-	Breeding	189.1/189.6/198.6
	West Donegal Coast SPA (IE004150)	In	-	Breeding	158.7/159.0/177.9
	Beara Peninsula SPA (IE004155)	In	-	Breeding	332.4/332.6/354.6
	Duvillaun Islands SPA (IE004111)	In	-	Breeding	238.2/238.6/263.7
	Deenish Island and Scariff Island SPA (IE004175)	In	-	Breeding	342.6/342.8/365.8
	Iveragh Peninsula SPA (IE004154)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	308.0/308.3/331.9
	Skelligs SPA (IE004007)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	354.1/354.4/378.0
	Mingulay and Berneray SPA (UK9001121)	In	-	Breeding	329.6/330.0/326.8
	Shiant Isles SPA (UK9001041)	In	-	Breeding	445.3/445.4/435.8
	St Kilda SPA (UK9001031)	In	-	Breeding	450.0/450.5/448.6
Gadwall (*Anas strepera*) [A051]	Lady's Island Lake SPA (IE004009)	Out	Outside foraging range; no interference with breeding locations.	-	182.8/180.3/186.9
Gannet (*Morus bassanus*) [A016]	Ailsa Craig SPA (UK9003091)	In	-	Foraging Breeding	175.5/168.3/153.8
	Saltee Islands SPA (IE004002)	In	-	Foraging Breeding	190.3/188.9/196.3
	Seas off Wexford (IE004237)	In	-	Foraging	144.1/145.9/145.0
	The Bull and The Cow Rocks SPA (IE004066)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	357.7/357.9/380.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Skelligs SPA (IE004007)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	354.1/354.4/378.0
	Grassholm SPA (UK9014041)	In	-	Foraging Breeding	244.2/237.9/240.6
	St Kilda SPA (UK9001031)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	450.0/450.5/448.6
Golden eagle (*Aquila chrysaetos*) [A091]	Rum SPA (UK9001341)	Out	Outside foraging range; no interference with breeding locations.	-	338.1/338.2/328.6
Goldeneye (*Bucephala clangula*) [A067]	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
Golden Plover (*Pluvialis apricaria*) [A140]	Dundalk Bay SPA (IE0004026)	In	-	Foraging Breeding	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	In	-	Foraging Breeding	19.6/10.2/18.5
	River Nanny Estuary and Shore SPA (IE004158)	Out	Outside foraging range; no interference with breeding locations.	-	25.6/16.6/24.2
	Outer Ards SPA (UK9020271)	Out	Outside foraging range; no interference with breeding locations.	-	84.6/72.5/56.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
Great black-backed gull (*Larus marinus*) [A187]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Isles of Scilly SPA (UK9020288)	Out	Outside foraging range; no interference with breeding locations.	-	430.8/428.2/434.3
Great Crested Grebe (*Podiceps cristatus*) [A005]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE 004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
Great Northern Diver (*Gavia immer*) [A003]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
Great skua (*Catharacta skua*)	St Kilda SPA (UK9001031)	In	-	Foraging	450.0/450.5/448.6
Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	The Raven SPA (IE004019)	Out	Outside foraging range; no interference with breeding locations.	-	159.4/156.5/162.9

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
Greenshank (*Tringa nebularia*) [A164]	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
Grey Heron (*Ardea cinerea*) [A028]	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations	-	141.8/142.2/148.3
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations	-	152.1/150.8/158.6
Grey Plover (Pluvialis squatarola) [A141]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	In	-	Foraging	19.6/10.2/18.5
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	The Raven SPA (IE004019)	Out	Outside foraging range; no interference with breeding locations.	-	159.4/156.5/162.9
	Wexford Harbour and Slobs SPA (IE 004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Greylag Goose (*Anser anser*) [A043]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Stabannan-Braganstown SPA (IE0004091)	In	-	Foraging	3.1/1.8/21.9
	Lambay Island SPA (IE004069)	Out	Outside foraging range; no interference with breeding locations.	-	50.5/40.4/42.7
	The Murrough SPA (IE004186)	Out	Outside foraging range; no interference with breeding locations.	-	89.2/82.7/86.9
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
Guillemot (*Uria aalge*) [A199]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7
	Ireland's Eye SPA (IE004117)	In	-	Foraging	57.3/48.9/52,7
	Rathlin Island SPA (UK9020011)	In	-	Foraging	156.2/155.7/145.4
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations.	-	144.1/145.9/145.0
	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	Ailsa Craig SPA (UK9003091)	Out	Outside foraging range; no interference with breeding locations.	-	175.5/168.3/153.8
	Saltee Islands SPA (IE004002)	Out	Outside foraging range; no interference with breeding locations.	-	190.3/188.9/196.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	North Colonsay and Western Cliffs SPA (UK9003171)	Out	Outside foraging range; no interference with breeding locations.	-	247.4/247.1/236.8
	Old Head of Kinsale SPA (IE004021)	Out	Outside foraging range; no interference with breeding locations.	-	284.5/284.6/301.9
	Iveragh Peninsula SPA (IE004154)	Out	Outside foraging range; no interference with breeding locations.	-	308.0/308.3/331.9
	Mingulay and Berneray SPA (UK9001121)	Out	Outside foraging range; no interference with breeding locations.	-	329.6/330.0/326.8
	Rum SPA (UK9001341)	Out	Outside foraging range; no interference with breeding locations.	-	338.1/338.2/328.6
	Canna and Sanday SPA (UK9001431)	Out	Outside foraging range; no interference with breeding locations.	-	352.4/352.5/343.6
	Skelligs SPA (IE004007)	Out	Outside foraging range; no interference with breeding locations.	-	354.1/354.4/378.0
	Shiant Isles SPA (UK9001041)	Out	Outside foraging range; no interference with breeding locations.	-	445.3/445.4/435.8
	St Kilda SPA (UK9001031)	Out	Outside foraging range; no interference with breeding locations.	-	450.0/450.5/448.6
Hen Harrier (*Circus cyaneus*) [A082]	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations	-	152.1/150.8/158.6
Herring Gull (*Larus argentatus*) [A184]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	River Nanny Estuary and Shore SPA (IE004158)	In	-	Foraging	25.6/16.6/24.2
	Skerries Island SPA (IE004122)	In	-	Foraging	40.6/30.1/33.1
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Ireland's Eye SPA (IE004117)	In	-	Foraging	57.3/48.9/52.7
	The Murrough SPA (IE004186)	Out	Outside foraging range	-	89.2/82.7/86.9
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Seas off Wexford (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
	West Donegal Coast SPA (IE004150)	Out	Outside foraging range; no interference with breeding locations.	-	158.7/159.0/177.9
	Inishmurray SPA (IE004068)	Out	Outside foraging range; no interference with breeding locations.	-	153.1/153.4/174.8
	Roaninish SPA (IE004121)	Out	Outside foraging range; no interference with breeding locations.	-	172.3/172.7/188.1
	Ailsa Craig SPA (UK9003091)	Out	Outside foraging range; no interference with breeding locations.	-	175.5/168.3/153.8
	West Donegal Islands SPA (IE004230)	Out	Outside foraging range; no interference with breeding locations.	-	180.4/180.8/192.9
	Mid-Waterford Coast SPA (IE004193)	Out	Outside foraging range; no interference with breeding locations.	-	195.9/195.9/207.2
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	Helvick Head to Ballyquin SPA (IE004192)	Out	Outside foraging range; no interference with breeding locations.	-	211.7/211.7/225.4
	Inishglora and Inishkeeragh SPA (IE004084)	Out	Outside foraging range; no interference with breeding locations.	-	239.2/239.6/264.1
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Canna and Sanday SPA (UK9001431)	Out	Outside foraging range; no interference with breeding locations.	-	352.4/352.5/343.6
Kittiwake (Rissa tridactyla) [A188]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7
	Howth Head Coast SPA (IE004113)	In	-	Foraging	59.9/51.6/55.2
	Ireland's Eye SPA (IE004117)	In	-	Foraging	57.3/48.9/52,7
	Wicklow Head SPA (IE004127)	In	-	Foraging	103.2/97.0/101.2*
	Seas off Wexford (IE004237)	In	-	Foraging	144.1/145.9/145.0
	Ailsa Craig SPA (UK9003091)	In	-	Foraging	175.5/168.3/153.8
	Aughris Head SPA (IE004133)	Out	Outside wintering foraging range; no interference with breeding locations.	-	154.8/155.2/178.3*
	Rathlin Island SPA (UK9020011)	In	-	Foraging	156.2/155.7/145.4
	West Donegal Coast SPA (IE004150)	Out	Outside wintering foraging range; no interference with breeding locations.	-	158.7/159.0/177.9*
	Horn Head to Fanad Head SPA (IE004194)	In	-	Foraging	161.9/162.4/167.1
	Saltee Islands SPA (IE004002)	In	-	Foraging	190.3/188.9/196.3
	Helvick Head to Ballyquin SPA (IE004192)	In	-	Foraging	211.7/211.7/225.4
	North Colonsay and Western Cliffs SPA (UK9003171)	In	-	Foraging	247.4/247.1/236.8
	Old Head of Kinsale SPA (IE004021)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	284.5/284.6/301.9
	Iveragh Peninsula SPA (IE004154)	Out	Outside foraging range; no interference with breeding locations.	-	308.0/308.3/331.9

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Skelligs SPA (IE004007)	Out	Outside foraging range; no interference with breeding locations.	-	354.1/354.4/378.0
	Rum SPA (UK9001341)	Out	Outside foraging range; no interference with breeding locations.	-	338.1/338.2/328.6
	Mingulay and Berneray SPA (UK9001121)	Out	Outside foraging range; no interference with breeding locations.	-	329.6/330.0/326.8
	Canna and Sanday SPA (UK9001431)	Out	Outside foraging range; no interference with breeding locations.	-	352.4/352.5/343.6
	Shiant Isles SPA (UK9001041)	Out	Outside foraging range; no interference with breeding locations.	-	445.3/445.4/435.8
	St Kilda SPA (UK9001031)	Out	Outside foraging range; no interference with breeding locations.	-	450.0/450.5/448.6
Knot (*Calidris canutus*) [A143]	Dundalk Bay SPA (IE0004026)	In	-	Foraging Breeding	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	In	-	Foraging Breeding	19.6/10.2/18.5
	River Nanny Estuary and Shore SPA (IE004158)	Out	Outside foraging range; no interference with breeding locations.	-	25.6/16.6/24.2
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Strangford Lough SPA (UK9020111)	Out	Outside foraging range; no interference with breeding locations.	-	75.0/64.8/49.4
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Mersey Narrows and North Wirral Foreshore SPA (UK9020287)	Out	Outside foraging range; no interference with breeding locations.	-	223.4/206.8/194.7
Lapwing (*Vanellus vanellus*) [A142]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	In	-	Foraging	19.6/10.2/18.5
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
Leach's petrel (*Oceanodroma leucorhoa*) [A015]	St Kilda SPA (UK9001031)	Out	Outside foraging range; no interference with breeding locations.	-	450.0/450.5/448.6
Lesser Black-backed Gull (*Larus fuscus*) [A183]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7
	Seas off Wexford SPA (IE004237)	In	-	Foraging	144.1/145.9/145.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside wintering foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ailsa Craig SPA (UK9003091)	In	-	Foraging	175.5/168.3/153.8
	Saltee Islands SPA (IE004002)	In	-	Foraging	190.3/188.9/196.3
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	In	-	Foraging	202.9/186.4/170.8
	Inishbofin, Inishdooey and Inishbeg SPA (IE004083)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	180.4/180.9/190.6
	Inishglora and Inishkeeragh SPA (IE004084)	Out	Outside foraging range; no interference with breeding locations.	-	239.2/239.6/264.1
	Ribble and Alt Estuaries SPA (UK9005103)	In	-	Foraging	224.3/207.4/194.5
	Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)	Out	Outside foraging range; no interference with breeding locations.	-	243.9/236.9/238.9
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	234.0/234.1/249.3
	Deenish Island and Scariff Island SPA (IE004175)	Out	Outside foraging range; no interference with breeding locations.	-	342.6/342.8/365.8
	Isles of Scilly SPA (UK9020288)	Out	Outside foraging range; no interference with breeding locations.	-	430.8/428.2/434.3
Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Carlingford Lough SPA (IE004078)	In	-	Foraging	29.4/18.4/5.7
	Carlingford Lough SPA (UK9020161)	In	-	Foraging	31.6/20.6/7.4
	Skerries Island SPA (IE004122)	In	-	Foraging	40.6/30.1/33.1
	South Dublin Bay and Tolka Estuary SPA (IE004024)	In	-	Foraging	58.3/52.8/59.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Strangford Lough SPA (UK9020111)	In	-	Foraging	75.0/64.8/49.4
	Outer Ards SPA (UK9020271)	In	-	Foraging	84.6/72.5/56.1
	The Murrough SPA (IE004186)	Out	Outside foraging range; no interference with breeding locations.	-	89.2/82.7/86.9
	Larne Lough SPA (UK9020221)	Out	Outside foraging range; no interference with breeding locations.	-	113.3/107.3/94.0
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
Little egret (*Egretta garzetta*) [A026]	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations	-	202.9/186.4/170.8
Little Grebe (*Tachybaptus ruficollis*) [A004]	Wexford Harbour and Slobs SPA (IE 004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
Little Gull (*Larus minutus*) [A177]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Liverpool Bay SPA (UK9020294)	In	-	Foraging	154.7/138.5/127.7
	Mersey Narrows and North Wirral Foreshore SPA (UK9020287)	In	-	Foraging	223.4/206.8/194.7
Little Tern (*Sterna albifrons*) [A195]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Boyne Estuary SPA (IE004080)	Out	Outside foraging range; no interference with breeding locations.	-	19.6/10.2/18.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	The Murrough SPA (IE004186)	Out	Outside foraging range; no interference with breeding locations.	-	89.2/82.7/86.9
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Illancrone and Inishkeeragh SPA (IE004132)	Out	Outside foraging range; no interference with breeding locations.	-	174.8/175.2/189.6
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
	Liverpool Bay SPA (UK9020294)	Out	Outside foraging range; no interference with breeding locations.	-	154.7/138.5/127.7
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Mallard (Anas platyrhynchos) [A053]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
Manx Shearwater (*Puffinus puffinus*) [A013]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Deenish Island and Scariff Island SPA (IE004175)	In	-	Foraging	342.6/342.8/365.8
	Skelligs SPA (IE004007)	In	-	Foraging	354.1/354.4/378.0
	Irish Sea Front SPA (UK9020328)	In	-	Foraging	86.4/69.5/56.9
	Copeland Islands SPA (UK9020291)	In	-	Foraging	109.8/101.5/86.8
	Seas off Wexford SPA (IE004237)	In	-	Foraging	144.1/145.9/145.0
	Glannau Aberdaron ac Ynys Enlli SPA (UK9013121)	In	-	Foraging	156.5/144.2/139.6
	Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)	In	-	Foraging	243.9/236.9/238.9
	Rum SPA (UK9001341)	In	-	Foraging	338.1/338.2/328.6
	St Kilda SPA (UK9001031)	In	-	Foraging	450.0/450.5/448.6
Mediterranean gull (*Larus melanocephalus*) [A176]	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations	-	202.9/186.4/170.8
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
Oystercatcher (*Haematopus ostralegus*) [A130]	Dundalk Bay SPA (IE0004026)	In	-	Foraging Breeding	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	Out	Outside foraging range; no interference with breeding locations.	-	19.6/10.2/18.5
	River Nanny Estuary and Shore SPA (IE004158)	Out	Outside foraging range; no interference with breeding locations.	-	25.6/16.6/24.2
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Wexford Harbour and Slobs SPA (IE 004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Peregrine (*Falco peregrinus*) [A103]	Rathlin Island SPA (UK9020011)	Out	Outside foraging range; no interference with breeding locations.	-	156.2/155.7/145.4
	West Donegal Coast SPA (IE004150)	Out	Outside foraging range; no interference with breeding locations.	-	158.7/159.0/177.9
	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	Mid-Waterford Coast SPA (IE004193)	Out	Outside foraging range; no interference with breeding locations.	-	195.9/195.9/207.2
	Helvick Head to Ballyquin SPA (IE004192)	Out	Outside foraging range; no interference with breeding locations.	-	211.7/211.7/225.4
	Iveragh Peninsula SPA (IE004154)	Out	Outside foraging range; no interference with breeding locations.	-	308.0/308.3/331.9
Pink-footed goose (*Anser brachyrhynchus*) [A040]	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Morecombe Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
Pintail (*Anas acuta*) [A054]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Puffin (*Fratercula arctica*) [A204]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7
	Seas off Wexford SPA (IE004237)	In	-	Foraging	144.1/145.9/145.0
	Saltee Islands SPA (IE004002)	In	-	Foraging	190.3/188.9/196.3
	Tory Island SPA (IE004073)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	189.1/189.6/198.6
	Skelligs SPA (IE004007)	Out	Outside foraging range; no interference with breeding locations.	-	354.1/354.4/378.0
	Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)	In	-	Foraging	243.9/236.9/238.9
	Mingulay and Berneray SPA (UK9001121)	Out	Outside foraging range; no interference with breeding locations.	-	329.6/330.0/326.8
	Canna and Sanday SPA (UK9001431)	Out	Outside foraging range; no interference with breeding locations.	-	352.4/352.5/343.6

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	The Bull and The Cow Rocks SPA (IE004066)	Out	Outside foraging range; no interference with breeding locations.	-	357.7/357.9/380.5
	Shiant Isles SPA (UK9001041)	Out	Outside foraging range; no interference with breeding locations.	-	445.3/445.4/435.8
	St Kilda SPA (UK9001031)	Out	Outside foraging range; no interference with breeding locations.	-	450.0/450.5/448.6
Purple Sandpiper (*Calidris maritima*) [A148]	Rockabill SPA (IE004014)	Out	Outside foraging range; no interference with breeding locations.	-	38.9/26.9/28.5
	Skerries Island SPA (IE004122)	Out	Outside foraging range; no interference with breeding locations.	-	40.6/30.1/33.1
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
Razorbill (*Alca torda*) [A200]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7
	Ireland's Eye SPA (IE004117)	In	-	Foraging	57.3/48.9/52.7
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations.	-	144.1/145.9/145.0
	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	161.9/162.4/167.1
	Rathlin Island SPA (UK9020011)	In	-	Foraging	156.2/155.7/145.4
	West Donegal Coast SPA (IE004150)	Out	Outside foraging range based on marine pathway; no interference with breeding locations.	-	158.7/159.0/177.9
	Saltee Islands SPA (IE004002)	Out	Outside foraging range; no interference with breeding locations.	-	190.3/188.9/196.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Tory Island SPA (IE004073)	Out	Outside foraging range; no interference with breeding locations.	-	189.1/189.6/198.6
	Mingulay and Berneray SPA (UK9001121)	Out	Outside foraging range; no interference with breeding locations.	-	329.6/330.0/326.8
	Shiant Isles SPA (UK9001041)	Out	Outside foraging range; no interference with breeding locations.	-	445.3/445.4/435.8
	St Kilda SPA (UK9001031)	Out	Outside foraging range; no interference with breeding locations.	-	450.0/450.5/448.6
Red-breasted Merganser (*Mergus serrator*) [A069]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
Redshank (*Tringa totanus*) [A162]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	Out	Outside foraging range; no interference with breeding locations.	-	19.6/10.2/18.5
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Strangford Lough SPA (UK9020111)	Out	Outside foraging range; no interference with breeding locations.	-	75.0/64.8/49.4
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Red-throated Diver (*Gavia stellata*) [A001]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	The Murrough SPA (IE004186)	Out	Outside foraging range; no interference with breeding locations.	-	89.2/82.7/86.9
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
	The Raven SPA (IE004019)	Out	Outside foraging range; no interference with breeding locations.	-	159.4/156.5/162.9
	Rum SPA (UK9001341)	Out	Outside foraging range; no interference with breeding locations.	-	338.1/338.2/328.6

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Liverpool Bay SPA (UK9020294)	Out	Outside foraging range; no interference with breeding locations.	-	154.7/138.5/127.7
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
Ringed Plover (*Charadrius hiaticula*) [A137]	Dundalk Bay SPA (IE0004026)	In	-	Foraging Breeding	10.1/0.7/8.0
	River Nanny Estuary and Shore SPA (IE004158)	Out	Outside foraging range; no interference with breeding locations.	-	25.6/16.6/24.2
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Outer Ards SPA (UK9020271)	Out	Outside foraging range; no interference with breeding locations.	-	84.6/72.5/56.1
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
Roseate Tern (*Sterna dougallii*) [A192]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Rockabill SPA (IE004014)	Out	Outside foraging range; no interference with breeding locations.	-	38.9/26.9/28.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	South Dublin Bay and Tolka Estuary SPA (IE004024)	Out	Outside foraging range; no interference with breeding locations.	-	58.3/52.8/59.0
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
	Lady's Island Lake SPA (IE004009)	Out	Outside foraging range; no interference with breeding locations.	-	182.8/180.3/186.9
	Larne Lough SPA (UK9020221)	Out	Outside foraging range; no interference with breeding locations.	-	113.3/107.3/94.0
	Anglesey Terns SPA (UK9013061)	Out	Outside foraging range; no interference with breeding locations.	-	121.1/105.2/95.2
Ruddy Turnstone (*Arenaria interpres*) [A169]	Boyne Estuary SPA (IE004080)	In		Foraging	19.6/10.2/18.5
	Skerries Island SPA (IE004122)	Out	Outside foraging range; no interference with breeding locations.	-	40.6/30.1/33.1
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations	-	234.0/234.1/249.3
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
	Outer Ards SPA (UK9020271)	Out	Outside foraging range; no interference with breeding locations.	-	84.6/72.5/56.1
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
Ruff (*Philomachus pugnax*) [A151]	Morecombe Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
Sanderling (*Calidris alba*) [A144]	Boyne Estuary SPA (IE004080)	In	-	Foraging	19.6/10.2/18.5
	River Nanny Estuary and Shore SPA (IE004158)	Out	Outside foraging range; no interference with breeding locations.	-	25.6/16.6/24.2
	Dalkey Islands SPA (IE004172)	Out	Outside foraging range; no interference with breeding locations.	-	69.9/63.0/67.6
	The Raven SPA (IE004019)	Out	Outside foraging range; no interference with breeding locations.	-	159.4/156.5/162.9
	Wexford Harbour and Slobs SPA (IE 004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
Sandwich Tern (*Sterna sandvicensis*) [A191]	Carlingford Lough SPA (UK9020161)	In	-	Foraging	31.6/20.6/7.4
	Strangford Lough SPA (UK9020111)	In	-	Foraging	75.0/64.8/49.4
	Larne Lough SPA (UK9020221)	Out	Outside foraging range; no interference with breeding locations.	-	113.3/107.3/94.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Anglesey Terns SPA (UK9013061)	Out	Outside foraging range; no interference with breeding locations.	-	121.1/105.2/95.2
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
	Greers Isle SPA (IE004082)	Out	Outside foraging range; no interference with breeding locations.	-	169.1/169.5/175.2
	Lady's Island Lake SPA (IE004009)	Out	Outside foraging range; no interference with breeding locations.	-	182.8/180.3/186.9
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
Scaup (*Aythya marila*) [A062]	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations	-	141.8/142.2/148.3
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
Shag (*Phalacrocorax aristotelis*) [A018]	North-west Irish Sea SPA (IE004236)	In	-	Foraging	16.6/0/3.4
	Skerries Island SPA (IE004122)	In	-	Foraging	40.6/30.1/33.1
	Lambay Island SPA (IE004069)	In	-	Foraging	50.5/40.4/42.7
	Seas off Wexford SPA (IE004237)	Out	Outside foraging range; no interference with breeding locations	-	144.1/145.9/145.0
	Saltee Islands SPA (IE004002)	Out	Outside foraging range; no interference with breeding locations.	-	190.3/188.9/196.3

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Horn Head to Fanad Head SPA (IE004194)	Out	Outside foraging range; no interference with breeding locations.	-	161.9/162.4/167.1
	West Donegal Coast SPA (IE004150)	Out	Outside foraging range; no interference with breeding locations.	-	158.7/159.0/177.9
	Inishtrahull SPA (IE004100)	Out	Outside foraging range; no interference with breeding locations.	-	180.0/180.5/179.9
	West Donegal Islands SPA (IE004230)	Out	Outside foraging range; no interference with breeding locations.	-	180.4/180.8/192.9
	Inishduff SPA (IE004115)	Out	Outside foraging range; no interference with breeding locations.	-	155.7/156.1/175.1
	Inishmurray SPA (IE004068)	Out	Outside foraging range; no interference with breeding locations.	-	153.1/153.4/174.8
	Inishglora and Inishkeeragh SPA (IE004084)	Out	Outside foraging range; no interference with breeding locations.	-	239.2/239.6/264.1
	Inishkea Islands SPA (IE004004)	Out	Outside foraging range; no interference with breeding locations.	-	241.2/241.6/266.5
	Mingulay and Berneray SPA (UK9001121)	Out	Outside foraging range; no interference with breeding locations.	-	329.6/330.0/326.8
	Shiant Isles SPA (UK9001041)	Out	Outside foraging range; no interference with breeding locations.	-	445.3/445.4/435.8
	Canna and Sanday SPA (UK9001431)	Out	Outside foraging range; no interference with breeding locations.	-	352.4/352.5/343.6
	Isles of Scilly SPA (UK9020288)	Out	Outside foraging range; no interference with breeding locations.	-	430.8/428.2/434.3
Shelduck (*Tadorna tadorna*) [A048]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	Boyne Estuary SPA (IE004080)	In	-	Foraging	19.6/10.2/18.5

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
Short-eared Owl (*Asio flammeus*) [A222]	Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)	Out	Outside foraging range; no interference with breeding locations.	-	243.9/236.9/238.9
Shoveler (*Anas clypeata*) [A056]	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
Slavonian Grebe (*Podiceps auritus*) [A007]	Blacksod Bay/Broad Haven SPA (IE004037)	Out	Outside foraging range; no interference with breeding locations.	-	215.6/215.6/239.7
Storm Petrel (*Hydrobates pelagicus*) [A014]	Duvillaun Islands SPA (IE004111)	In	-	Foraging	238.2/238.6/263.7
	Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)	In	-	Foraging	243.9/236.9/238.9
	Inishglora and Inishkeeragh SPA (IE004084)	In	-	Foraging	239.2/239.6/264.1
	Deenish Island and Scariff Island SPA (IE004175)	Out	Outside foraging range; no interference with breeding locations.	-	342.6/342.8/365.8

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Skelligs SPA (IE004007)	Out	Outside foraging range; no interference with breeding locations.	-	354.1/354.4/378.0
	The Bull and The Cow Rocks SPA (IE004066)	Out	Outside foraging range; no interference with breeding locations.	-	357.7/357.9/380.5
	Isles of Scilly SPA (UK9020288)	Out	Outside foraging range; no interference with breeding locations.	-	430.8/428.2/434.3
	St Kilda SPA (UK9001031)	Out	Outside foraging range; no interference with breeding locations.	-	450.0/450.5/448.6
Teal (*Anas crecca*) [A052]	Dundalk Bay SPA (IE0004026)	In	-	Foraging	10.1/0.7/8.0
	The Murrough SPA (IE004186)	Out	Outside foraging range; no interference with breeding locations.	-	89.2/82.7/86.9
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	The Dee Estuary SPA (UK9013011)	Out	Outside foraging range; no interference with breeding locations.	-	213.1/196.5/184.9
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3
	Dundalk Bay SPA (IE0004026)	In	-	Water pollution	10.1/0.7/8.0

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
Wetlands and Waterbirds [A999]	Carlingford Lough SPA (UK9020161)	In	-	Water pollution	31.6/20.6/7.4
	Boyne Estuary SPA (IE004080)	In	-	Water pollution	19.6/10.2/18.5
	River Nanny Estuary and Shore SPA (IE004158)	In	-	Water pollution	25.6/16.6/24.2
	Lough Swilly SPA (IE004075)	In	-	Water pollution	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	In	-	Water pollution	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	In	-	Water pollution	152.1/150.8/158.6
	The Raven SPA (IE004019)	In	-	Water pollution	159.4/156.5/162.9
	Blacksod Bay/Broad Haven SPA (IE004037)	In	-	Water pollution	215.6/215.6/239.7
	Ballymacoda Bay SPA	In	-	Water pollution	234.0/234.1/249.3
Whooper Swan (Cygnus cygnus) [A038]	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Morecambe Bay and Duddon Estuary SPA (UK9020326)	Out	Outside foraging range; no interference with breeding locations.	-	202.9/186.4/170.8
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
Wigeon (*Anas penelope*) [A050]	The Murrough SPA (IE004186)	Out	Outside foraging range; no interference with breeding locations.	-	89.2/82.7/86.9

Qualifying Interest Habitat and Species	Relevant European Site(s) (code)	QI/SCI screened in/out	Summary of reasoning for screening out	Effect pathway(s) identified	Distance (km) to onshore sub-station / onshore cable route / offshore wind farm area
	Lough Foyle SPA (UK9020031)	Out	Outside foraging range; no interference with breeding locations.	-	136.7/137.2/137.4
	Lough Swilly SPA (IE004075)	Out	Outside foraging range; no interference with breeding locations.	-	141.8/142.2/148.3
	Lough Foyle SPA (IE004087)	Out	Outside foraging range; no interference with breeding locations.	-	142.3/142.7/145.1
	Wexford Harbour and Slobs SPA (IE004076)	Out	Outside foraging range; no interference with breeding locations.	-	152.1/150.8/158.6
	Ribble and Alt Estuaries SPA (UK9005103)	Out	Outside foraging range; no interference with breeding locations.	-	224.3/207.4/194.5
	Ballymacoda Bay SPA (IE004023)	Out	Outside foraging range; no interference with breeding locations.	-	234.0/234.1/249.3

*****European sites screened out of further assessment as they are beyond the foraging distance by marine pathway.

5 CONCLUSION

This Stage 1 appraisal to inform screening for Appropriate Assessment has concluded that, having regard to the methodology employed and the findings of the appraisal, it cannot be excluded, on the basis of objective scientific information, that the Project, individually or in combination with other projects, will have a significant effect on the QIs of certain SACs and the SCIs of certain SPAs, as outlined above and summarised in Table 4-3 and Table 4-4.

It is therefore recommended that the Project is brought forward to Stage 2 – Natura Impact Assessment for consideration of adverse effects on integrity of European sites and the need for mitigation of these effects. An NIS should be prepared to provide the Competent Authority with the scientific information upon which it will base its findings and conclusions.

Where this screening report has concluded that, based on objective scientific information, likely significant effects on QIs of particular SACs and the SCIs of particular SPAs (again as detailed above) can be excluded, these interests and sites are not assessed further, as Stage 2 AA is not required.

LSEs cannot be ruled out for the following 16 SACs listed in Table 5-1 and the following 54 SPAs listed in Table 5-2:

Table 5-1: SACs screened in for Stage 2 Appraisal for Appropriate Assessment.

Special Areas of Conservation
Blackwater Bank SAC (IE002953)
Carlingford Shore SAC (IE002306)
Codling Fault Zone SAC (IE003015)
Dundalk Bay SAC (IE0000455)
Boyne Coast and Estuary SAC (IE001957)
Murlough SAC (UK0016612)
Rockabill to Dalkey Island SAC (IE003000)
Lambay Island SAC (000204)
Lleyn Peninsula and the Sarnau/Pen Llyn a`r Sarnau SAC (UK0013117)
Cardigan Bay/Bae Ceredigion SAC (UK0012712)
Pembrokeshire Marine/Sir Benfro Forol SAC (UK0013116)
North Channel SAC (UK0030399)
North Anglesey Marine/Gogledd Môn Forol SAC (UK0030398)
West Wales Marine/Gorllewin Cymru Forol SAC (UK0030397)
River Boyne And River Blackwater SAC (IE002299)
Slaney River Valley SAC (IE000781)

Table 5-2: SPAs screened in for Stage 2 Appraisal for Appropriate Assessment.

Special Protection Areas
Ailsa Craig SPA (UK9003091)
Ballymacoda Bay SPA (IE004023)
Beara Peninsula SPA (IE004155)
Blacksod Bay/Broad Haven SPA (IE004037)
Boyne Estuary SPA (IE004080)
Carlingford Lough SPA (IE004078)

Special Protection Areas
Carlingford Lough SPA (UK9020161)
Copeland Islands SPA (UK9020291)
Dalkey Islands SPA (IE004172)
Deenish Island and Scariff Island SPA (IE004175)
Dundalk Bay SPA (IE0004026)
Duvillaun Islands SPA (IE004111)
Glannau Aberdaron ac Ynys Enlli SPA (UK9013121)
Grassholm SPA (UK9014041)
Greers Isle SPA (IE004082)
Helvick Head to Ballyquin SPA (IE004192)
Horn Head to Fanad Head SPA (IE004194)
Howth Head Coast SPA (IE004113)
Inishglora and Inishkeeragh SPA (IE004084)
Ireland's Eye SPA (IE004117)
Irish Sea Front SPA (UK9020328)
Lady's Island Lake SPA (IE004009)
Lambay Island SPA (IE004069)
Liverpool Bay SPA (UK9020294)
Lough Foyle SPA (IE004087)
Lough Swilly SPA (IE004075)
Mersey Narrows and North Wirral Foreshore SPA (UK9020287)
Mingulay and Berneray SPA (UK9001121)
Morecambe Bay and Duddon Estuary SPA (UK9020326)
North Colonsay and Western Cliffs SPA (UK9003171)
North-west Irish Sea SPA (IE004236)
Outer Ards SPA (UK9020271)
Pembrokeshire SPA (UK9014051)
Rathlin Island SPA (UK9020011)
Ribble and Alt Estuaries SPA (UK9005103)
River Nanny Estuary and Shore SPA (IE004158)
Rockabill SPA (IE004014)
Rum SPA (UK9001341)
Saltee Islands SPA (IE004002)
Seas off Wexford SPA (IE004237)
Shiant Isles SPA (UK9001041)
Skelligs SPA (IE004007)
Skerries Island SPA (IE004122)
Skomer, Skokholm and the Seas off Pembrokeshire SPA (UK9014051)
South Dublin Bay and Tolka Estuary SPA (IE004024)
St Kilda SPA (UK9001031)
Stabannan-Braganstown SPA (IE0004091)
Strangford Lough SPA (UK9020111)
The Murrough SPA (IE004186)
The Raven SPA (IE004019)
Tory Island SPA (IE004073)

Special Protection Areas
West Donegal Coast SPA (IE004150)
Wexford Harbour and Slobs SPA (IE004076)
Wicklow Head SPA (IE004127)

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