Offshore Wind Power Limited

West of Orkney Windfarm

Offshore HRA Screening Report

ASSIGNMENT L100632-S09

DOCUMENT L-100632-S09-A-REPT-001

XODUS

West of Orkney Windfarm

REVISIONS & APPROVALS

This report has been prepared by Xodus Group exclusively for the benefit and use of Offshore Wind Power Limited. Xodus Group expressly disclaims any and all liability to third parties (parties or persons other than Offshore Wind Power Limited) which may be based on this report.

The information contained in this report is strictly confidential and intended only for the use of Offshore Wind Power Limited. This report shall not be reproduced, distributed, quoted or made available – in whole or in part – to any third party other than for the purpose for which it was originally produced without the prior written consent of Xodus Group.

The authenticity, completeness and accuracy of any information provided to Xodus Group in relation to this report has not been independently verified. No representation or warranty express or implied, is or will be made in relation to, and no responsibility or liability will be accepted by Xodus Group as to or in relation to, the accuracy or completeness of this report. Xodus Group expressly disclaims any and all liability which may be based on such information, errors therein or omissions therefrom.

			Jane Gordon Digitally signed by Jane Gordon Date: 2022.09.07 16:49:11 +01'00'	David Bloxsom Digitally signed by David Bloxsom Date: 2022.09.07 16:45:48 +01'00'	David Bloxsom Digitally signed by David Bloxsom Date: 2022.09.07 16:46:01 +01'00'	
A01	07/09/2022	Issued for Use	JG	DB	DB	OWPL
R03	06/09/2022	Re-issued for Review	JG	DB	DB	OWPL
R02	25/08/2022	Re-issued for Review	JG	DB	DB	OWPL
R01	02/08/2022	Issued for Review	JG	DB	DB	OWPL
REV	**DATE**	**DESCRIPTION**	**ISSUED**	**CHECKED**	**APPROVED**	**CLIENT**

CONTENTS

1 INTRODUCTION

1.1 Background

The applicant, Offshore Wind Power Limited (OWPL) is proposing the development of the West of Orkney Windfarm ('the Project'), an Offshore Wind Farm (OWF), located at least 23 km from the north coast of Scotland and 28 km from the west coast of Hoy, Orkney. Crown Estate Scotland (CES) awarded OWPL the Option Agreement Area (OAA) in January 2022 for the development of the proposed Project following the ScotWind offshore wind leasing round.

The Project lies wholly within the "N1" Plan Option (PO), which is one of 15 PO areas around Scotland, which the Scottish Government considered suitable for the development of commercial scale OWFs. The Scottish Government published the Sectoral Marine Plan for Offshore Wind Energy in October 2020 following over 2 years of extensive analysis, consideration, and engagement with a wide range of stakeholders.

1.2 Project overview

The Project has a grid connection agreement with National Grid for a connection to the existing network at or near Spittal, Caithness. OWPL are responsible for the consenting of the OWF and transmission infrastructure, with the exception of the construction and operation of the grid infrastructure, for which Scottish Hydro Electric Transmission plc (SHET-L) will be responsible.

OWPL also have an exclusive partnership for the Project to power the Flotta Hydrogen Hub (Flotta, Orkney) through a Power Purchase Agreement (PPA). However, this Offshore Habitats Regulations Appraisal (HRA) Screening Report only considers the connection to Spittal, Caithness. The Marine Licence applications for the offshore transmission infrastructure associated with the connection of the Project to the proposed Flotta Hydrogen Hub will be submitted at a later date and will be the subject of a separate HRA Screening Report.

This Offshore HRA Screening Report considers only the offshore components (seaward of Mean High Water Springs (MHWS)) ('the offshore Project') for a connection to Spittal, Caithness. The key components of the offshore Project will include:

- Up to 125 Wind Turbine Generators (WTGs) with the option of fixed and/or floating foundations and associated support structures;
- Up to 5 Offshore Substation Platforms (OSPs);
- Up to 750 km of inter-array cables; and
- Up to 5 offshore export cables to landfall(s) at Caithness.

The offshore Project area, as known at the time of the preparation of this Offshore HRA Screening Report, is displayed in Figure 1-1. Further refinement of the offshore Project area is currently ongoing and may result in a refined red line boundary ahead of the Section 36 consent and Marine Licence applications.

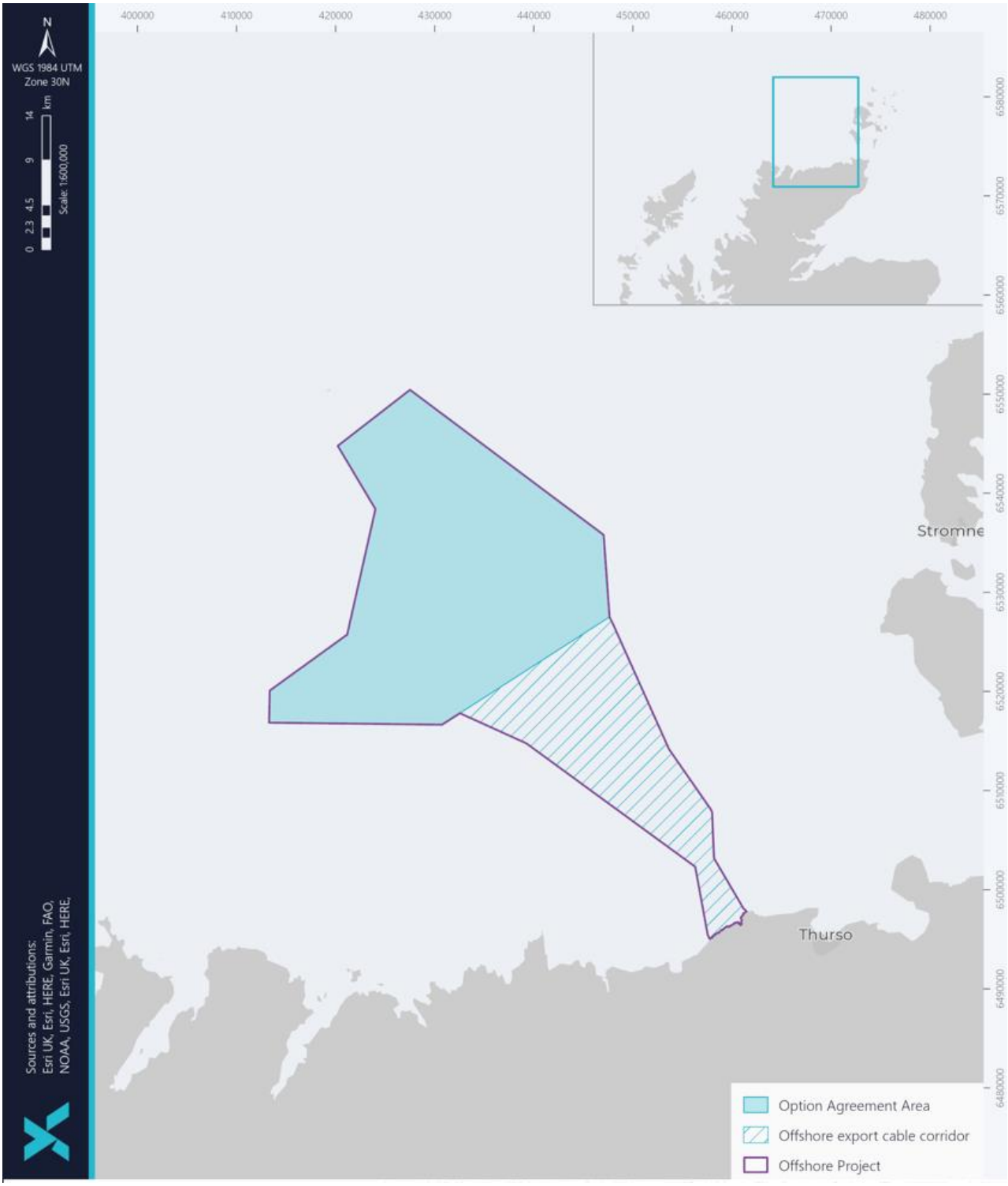

Figure 1-1 Offshore Project Overview

The offshore Project design overview presented in, and used to inform this Offshore HRA Screening Report, is consistent with that presented in the Scoping Report submitted to MS-LOT, The Highland Council (THC) and Orkney Islands Council (OIC) in March 2022. Design work is ongoing, which will refine some of the options within the Project Design Envelope (PDE) ahead of consent application. Some refinement of the potential cable landfall options in Caithness has already taken place and this is reflected in the offshore Project area used to inform the HRA screening (see Figure 1-1).

1.3 Purpose of this report

This Offshore HRA Screening Report informs the HRA process for the offshore Project. Specifically, the Offshore HRA Screening Report provides the supporting information to enable HRA Screening with respect to the Likely Significant Effects (LSEs) associated with the offshore Project on European sites. Where no potential LSE is predicted on a European site, the European site has been screened out and no further assessment will be carried out. Where LSE cannot be ruled out, a more detailed assessment will be carried out over the coming months and reported within the full Report to Inform Appropriate Assessment (RIAA), that will be issued alongside the Marine Licence and Section 36 applications for the offshore Project.

Only the potential effects from the offshore Project during pre-construction, construction, operation, and decommissioning are considered within this Offshore HRA Screening Report. As the Project is submitting separate applications for onshore and offshore to different regulatory bodies, the onshore HRA screening associated with the onshore infrastructure of the Project will be considered separately in the Onshore HRA Screening Report. Any onshore designated sites where there is potential connectivity to the offshore Project have been considered in this Offshore HRA Screening Report, and where any offshore designated site has potential connectivity with the onshore infrastructure of the Project, this will be considered in the Onshore HRA Screening Report associated with the onshore planning applications. A summary of the Onshore RIAA will be included within the Offshore RIAA.

The assessment within this report is based on the existing understanding of the baseline environment and the offshore Project activities. Further assessments, surveys, stakeholder engagement and offshore Project design amendments may change this assessment. Any such changes will be considered within the RIAA.

2 THE HRA PROCESS

2.1 Legislative context

The requirement to consider the potential effects of plans and projects on European sites falls under the following pieces of legislation ('The Habitats Regulations')[1]:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) – applicable to Marine Licence applications out to the 12 Nautical Mile (NM) limit;
- The Conservation of Offshore Marine Habitats and Species Regulations 2017 – applicable to Marine Licence applications between the 12 and 200 NM limits; and
- The Conservation of Habitats and Species Regulations 2017 (as amended) – applicable to Section 36 Consent applications.

The Habitats Regulations require for the consideration of potential effects from projects and plans on European sites, including Special Areas of Conservation (SACs), candidate SACs (cSACs), Special Protection Areas (SPAs), potential SPAs (pSPAs), Sites of Community Importance (SCI) and Ramsar sites[2]. An HRA must be carried out to determine the potential for a development to result in a LSE on European sites, either individually or in-combination with other plans or projects. Sites of Special Scientific Interest (SSSIs) are not protected under the Habitats Regulations and do not form part of the HRA process.

The Habitat Regulations are in place to protect European sites. As the UK is no longer part of the EU, amendments were made to the Habitats Regulations in Scotland to ensure that they continue to work in the same manner in Scotland's inshore and offshore waters. The amendments made are minor and technical in nature, for example references to European Economic Area (EEA) states are corrected to exclude the UK and the European sites located within the UK now form part of the UK's National Site Network and are no longer part of the Natura 2000 network. The policies and procedures under the HRA Regulations remain unchanged. These amendments were made through The Conservation (Natural Habitats, &c.) (EU Exit) (Scotland) (Amendment) Regulations 2019 and the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 (the "EU Exit Regulations"). Guidance on the implications of EU Exit on the HRA regulations is available through the Scottish Government website (Scottish Government, 2020a).

The Habitats Regulations contain the procedural requirements to undertake HRAs in order to assess the potential implications of plans/ projects for European sites (Scottish Government, 2020a). The objectives in relation to the UK Site Network include:

- To maintain or restore habitats and species listed in the Habitats Directive to favourable conservation status; and

[1] *The Habitats Regulations transpose the European Union (EU) Habitats Directive (Council Directive 92/43 /EEC) and the EU Birds Directive (Council Directive 2009/147/EC) into Scottish law.*

[2] *It is Scottish Government policy to consider Ramsar sites as part of the HRA. However, Ramsar sites are not considered separately if they overlap with SACs and/or SPAs.*

- To contribute to ensuring the survival and reproduction of certain species of wild bird in their area of distribution and to maintaining their populations at levels which correspond to ecological, scientific, and cultural requirements, while taking account of economic and recreational requirements.

2.2 HRA process

The European Commission's (2021) guidance identifying a staged process for the assessment of plans or projects is relevant for this assessment. The four stages are commonly categorised as the following:

- Stage One: HRA Screening;
- Stage Two: Appropriate Assessment (AA) carried out by the Competent Authority and informed by the RIAA;
- Stage Three: Assessment of Alternative Solutions; and
- Stage Four: Assessment of 'Imperative Reasons of Overriding Public Interest' (IROPI).

This Offshore HRA Screening Report has been prepared to address Stage One of the HRA process. Stage Two of the HRA process will take place in parallel with the Offshore EIA, with the results presented within the full RIAA.

2.2.1 Stage one: HRA screening

The purpose of HRA Screening is to identify aspects of the offshore Project for which it is not possible to rule out the potential risk of significant effects on a European site (referred to as potential LSE), either alone or in-combination with other projects. An LSE is one that cannot be ruled out on the basis of objective information.

2.2.2 Stage two: Appropriate Assessment (AA)

European sites and features subject to an AA are those for which a potential LSEs could not be ruled out during the screening exercise. A European site is progressed to *Stage Two: Appropriate Assessment*, where it is not possible to exclude potential LSE to one or more qualifying features of that site in view of the Conservation Objectives. A project is required to provide a RIAA, which considers the effects of a project, alone and in-combination with other plans and projects, on the integrity of a designated site, with regard to the European site's structure and function and its Conservation Objectives. The Competent Authority is then required to carry out an AA on the implications for a European site with respect of that site's Conservation Objectives, before deciding to undertake or give any consent, permission, or other authorisation for, a plan or project.

The need for an AA extends to plans or projects out with the boundary of a European site in order to determine the implications for the features for which the site is designated.

2.2.3 Stage three: assessment of alternative solutions

If the competent authority cannot conclude no adverse effect on the integrity of a European site, alternative solutions should be identified and assessed (e.g. changes to project design, location, or the option of not developing the project at all i.e. the 'do nothing' scenario).

2.2.4 Stage four: assessment of 'imperative reasons of overriding public interest' (IROPI)

If there are no alternative solutions to the development that would result in the conclusion of no adverse effect on the integrity of a European site, the development may not proceed unless it satisfies the principles of IROPI, relating to: human health, public safety or beneficial consequences of primary importance to the environment, or any other reasons, provided that the competent authority has had regard to the opinion of the Scottish Ministers in satisfying itself that there are such reasons.

Where a development satisfies the principles of IROPI, compensatory measures must be implemented to maintain the coherence of the UK site network. These measures should be developed to offset the adverse effects caused to the European site.

2.2.5 Mitigation

Following the judgement of the European Court of Justice in the People Over Wind and Sweetman case in 2018 (Case C323/17), NatureScot (NS) (then Scottish Natural Heritage (SNH)) provided guidance to clarify what stage mitigation can be considered in the HRA process for Scottish developments (SNH, n.d.).

NS interpreted the judgement from the European Court of Justice as stating that mitigation measures that intend to avoid or reduce harmful effects to a European site cannot be considered at the screening stage. However, embedded mitigation measures which are not specifically designed to avoid or reduce effects on a European site, but do so incidentally, can be considered. Therefore, there must be a distinction between these two types of mitigation.

In response to this guidance, this Offshore HRA Screening Report does not consider mitigation measures that are specifically implemented to reduce or avoid effects on a European site. Embedded mitigation measures, that incidentally reduce or avoid effects on European sites are considered for undertaking Screening for no potential LSE. These include post-consent plans for accidental release of hazardous substances, such as the Environmental Management Plan and Shipboard Oil Pollution Emergency Plans, that would be in place regardless of the possible effects on European sites.

2.3 Guidance

Relevant guidance documents for conducting HRA's for offshore wind developments in Scotland include:

- Habitats Regulations Appraisal: Guidance for Plan-making Bodies in Scotland (Tyldesley *et al.*, 2015);
- The handling of mitigation in Habitats Regulations Appraisal – the People Over Wind CJEU judgement (SNH, n.d.);
- Marine Scotland Consenting and Licensing Guidance for Offshore Wind, Wave and Tidal Energy Applications (Scottish Government, 2018); and
- EU Exit: habitats regulations in Scotland (Scottish Government, 2020a).

These documents have been considered throughout this Offshore HRA Screening Report.

3 PROJECT DESCRIPTION

3.1 Introduction

This section provides a description of the current project parameters for the offshore Project. In accordance with best practice, the Project will utilise a Design Envelope approach, and therefore, the offshore Project parameters will be further refined / defined as the Project progresses. The Design Envelope approach enables a range of parameter values to be presented for each Project aspect, maintaining some flexibility in Project design which recognises rapid and frequent advances in the offshore renewable industry.

As stated in section 1.2, the offshore Project design used to inform this Offshore HRA Screening Report is consistent with that presented in the Scoping Report submitted to MS-LOT, THC and OIC in March 2022. Design work is ongoing which will refine some of the options within the PDE ahead of consent application. Some refinement of the potential cable landfall options in Caithness has already taken place and this is reflected in the offshore Project area used to inform the HRA screening.

3.2 Offshore Project boundary

The offshore Project boundary, within which the offshore wind farm and associated offshore transmission infrastructure will be located, is presented in Figure 1-1. This boundary will continue to be refined as the offshore Project design progresses, ahead of the Section 36 and Marine Licence applications. The offshore Project boundary includes:

- The OAA; and
- An offshore export cable corridor to the north coast of Caithness with potential landfall options at Cling Glang and Crosskirk.

3.3 Offshore infrastructure

The key offshore Project design parameters are outlined in Table 3-1.

Table 3-1 Anticipated Key Offshore Project Parameters

AREA	PROJECT ASPECT	DESCRIPTION
OAA	WTGs	Up to 125 WTGs with a total installed capacity of 2 Gigawatt (GW) No. of WTGs – up to 125 Hub height – up to 200 m Maximum tip height – up to 370 m Rotor diameter – up to 330 m

AREA	PROJECT ASPECT	DESCRIPTION
	WTG foundations and substructures	WTGs will be supported by either fixed-bottom or floating substructures. Three fixed-bottom foundation options: monopile, jacket and gravity based. Three floating substructure options: barge, semi-submersible and tension leg.
	Offshore substation platforms (OSPs)	Up to five OSPs within the OAA. OSPs will be supported by piled jacket foundations.
	Inter-array and interconnector cables	Up to 750 km of inter-array cable and 150 km of interconnector cable.
Offshore Export Cable Corridor	Export cable characteristics	Up to five offshore export cables to landfall(s) at Crosskirk and Cling Glang.
	Landfall infrastructure	The installation of offshore export cables at landfalls will either be through horizontal directional drilling (HDD), open-cut trench, or rock pinning.

3.4 Project stages

3.4.1 Construction

It is anticipated that the construction of the offshore Project will take approximately 4 years (subject to change) between 2028 to 2031. Pre-construction surveys and site investigations may occur ahead of this timeline; however, the timelines are yet to be confirmed. Construction works would typically be undertaken 24 hours a day, 7 days a week offshore, dependent upon weather conditions. The general series of activities includes:

1. Pre-construction surveys and site investigations;
2. Site preparation, foundation and substructure installation;
3. OSP installation;
4. Offshore export cable – landfall and offshore installation;
5. Foundation or substructure installation;
6. Inter-array and interconnector cable installation; and
7. WTG installation/commissioning.

3.4.2 Operations and maintenance

During the operation and maintenance period, the following classifications of maintenance may be required:

- Routine maintenance: activities that are carried out on a regular basis based on the Original Equipment Manufacturer (OEM) recommendations and good industry practice, for example inspections, testing investigation of minor faults;

- Unscheduled maintenance: activities that may be required to carry out repairs or remedial works to return the asset to serviceable condition; and
- Major component replacement/repair: Faults that could trigger emergency repairs requiring large component replacements and extensive remedial works.

All offshore infrastructure, including WTGs, foundations, cables, and offshore substation platforms will be included in monitoring and maintenance programmes.

3.4.3 Decommissioning

The Energy Act 2004 and the Scotland Act 2016 contain statutory requirements in relation to the decommissioning of Offshore Renewable Energy Installations (OREI) and require the Project to provide a Decommissioning Programme, supported by appropriate financial security, prior to construction. Decommissioning activities will comply with all relevant legislation at that time and relevant stakeholders will be consulted during the development of the Decommissioning Programme.

Best practice will be followed when developing a Decommissioning Programme. It is expected that WTGs and OSPs will be removed in a reverse order of their installation, with surface infrastructure likely to be fully removed. The decommissioning options for the cables will be discussed with stakeholders and regulators, however, sections of the cable may be left *in situ* to avoid unnecessarily disturbing the seabed.

4 SCREENING METHODOLOGY

4.1 Screening process

4.1.1 Overview

This section outlines the HRA screening process which has been used throughout the report. The approach follows a stepwise approach and has been used consistently throughout the below receptor specific topic assessments:

- Section 5 – Annex I habitats;
- Section 6 – Diadromous fish features;
- Section 7 – Marine mammals; and
- Section 8 – Offshore ornithology features.

4.1.2 Identification of European sites and features with connectivity

This first step identifies European sites and features with connectivity to the offshore Project. The identification of European sites is undertaken with reference to the qualifying interests / features in line with the following process:

- Identifying the range of effects that the offshore Project could have on qualifying feature(s) of a site (pathways for LSE); and
- Determining connectivity with the sites (e.g. if a qualifying interest / feature of the European site may overlap with the boundary of the offshore Project or the wider zone of influence).

Effect identification has been informed by the Sectoral Marine Plan for Offshore Wind and the supporting Strategic Environmental Assessment (particularly Appendix C), as well as industry experience and scientific research. It has also taken into account feedback received through the Scottish Ministers Scoping Opinion (MS-LOT, 2022).

Connectivity depends on a number of factors including life cycle, foraging, behavioural, breeding, and migratory characteristics of these qualifying features associated with a particular site and the characteristics and potential effects of the project. Each particular receptor topic has defined the relevant criteria used to determine connectivity. The outcome of this step is a list of European sites and features for which there is connectivity with the offshore Project. It should be noted that any distances measured between the offshore Project and European sites to determine connectivity have been measured from the outer boundary of the offshore Project (as shown in Figure 1-1) to the outer boundary of the European site.

4.1.3 Determination of no Likely Significant Effect (LSE)

Where it is identified that there is connectivity between the offshore Project and the qualifying interests of a site, further appraisal is required to determine whether, as a result of this connectivity, no potential LSE can be concluded.

In order to determine no potential LSE, it is necessary to:

- Determine whether that qualifying feature(s) would, by virtue of its behavioural and foraging characteristics, be affected by a particular effect (species sensitivity); and
- Where a qualifying feature is likely to be affected by an effect, identify whether or not this is likely to have a significant effect on the conservation objectives for the site (conclusion of no potential LSE or not).

The assessment of no potential LSE combines information on effect pathways and characteristics of qualifying interests as part of a high-level appraisal to determine whether or not there is potential for any of the conservation objectives relating to the qualifying interests of a site to be undermined on the basis of the potential effects. Where there is no potential for the conservation objective to be undermined, no potential LSE is concluded.

4.2 Stakeholder consultation to date

An Environmental Impact Assessment (EIA) Scoping Report for the Project was submitted to MS-LOT, THC and OIC in March 2022. Consultation responses on the EIA Scoping Report that are relevant to this Offshore HRA Screening Report (e.g. requests to consider effects on specific European sites) have been considered and taken into account when identifying connectivity and determining no potential LSE.

Through meetings with consultees to discuss specific details of the approach to EIA and HRA, in particular with NS, further advice has been provided on the approach to HRA Screening and taken into account within this report.

5 EUROPEAN SITES DESIGNATED FOR ANNEX I HABITATS

5.1 Initial screening criteria

This section outlines the results of the stepwise process to identify European sites with relevant Annex I habitats to be taken forward to the assessment and determination of no potential LSE. The initial screening criteria utilised to identify European sites with relevant Annex I habitats are outlined below:

- The site boundaries of the offshore Project overlap with one or more European sites;
- The European site is located within the zone of influence of effects associated with the offshore Project, which is considered as extending up to a maximum of 10 km from the boundaries of the offshore Project. In the context of Annex I habitats the majority of effects occur within the offshore Project footprint, however sediment disturbance generated during offshore works may result in adverse effects on water quality and generate smothering effects where sediments resettle. These effects may extend beyond the boundaries of the offshore Project.

5.2 Identification of sites and features with connectivity

The nearest European sites to the offshore Project (i.e. those located in the West of Orkney and Orkney region) have been listed in Table 5-1 and potential pathways for LSE on these sites has been discussed further in this section. Figure 5-1 shows the location of these sites in the context of the offshore Project.

Based on the criteria described in section 5.1, there are no European sites with relevant Annex I habitats that have a connectivity to the offshore Project, due to the distance to these sites (i.e. located > 10 km from the offshore Project, which is considered as the Zone of Influence (ZOI) for potential LSE).

Table 5-1 Summary of the European sites Designated for Annex I Habitats Located Within the West of Orkney Region and Orkney Region

SITE NAME	QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 5-1 ID
Sanday SAC	• Annex I Reefs; and • Annex I Sandbanks slightly covered by seawater all the time • Annex I Mudflats and sandflats not covered by seawater at low tide	79.7	82.3	1

SITE NAME	QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 5-1 ID
Loch of Stenness SAC	• Annex I Coastal lagoons	36.2	37.8	2
Solan Bank Reef SAC	• Annex I Reefs	25.0	43.1	3
North Rona SAC	• Annex I Reefs; and • Annex I Submerged or partially submerged sea caves	81.4	100.6	4

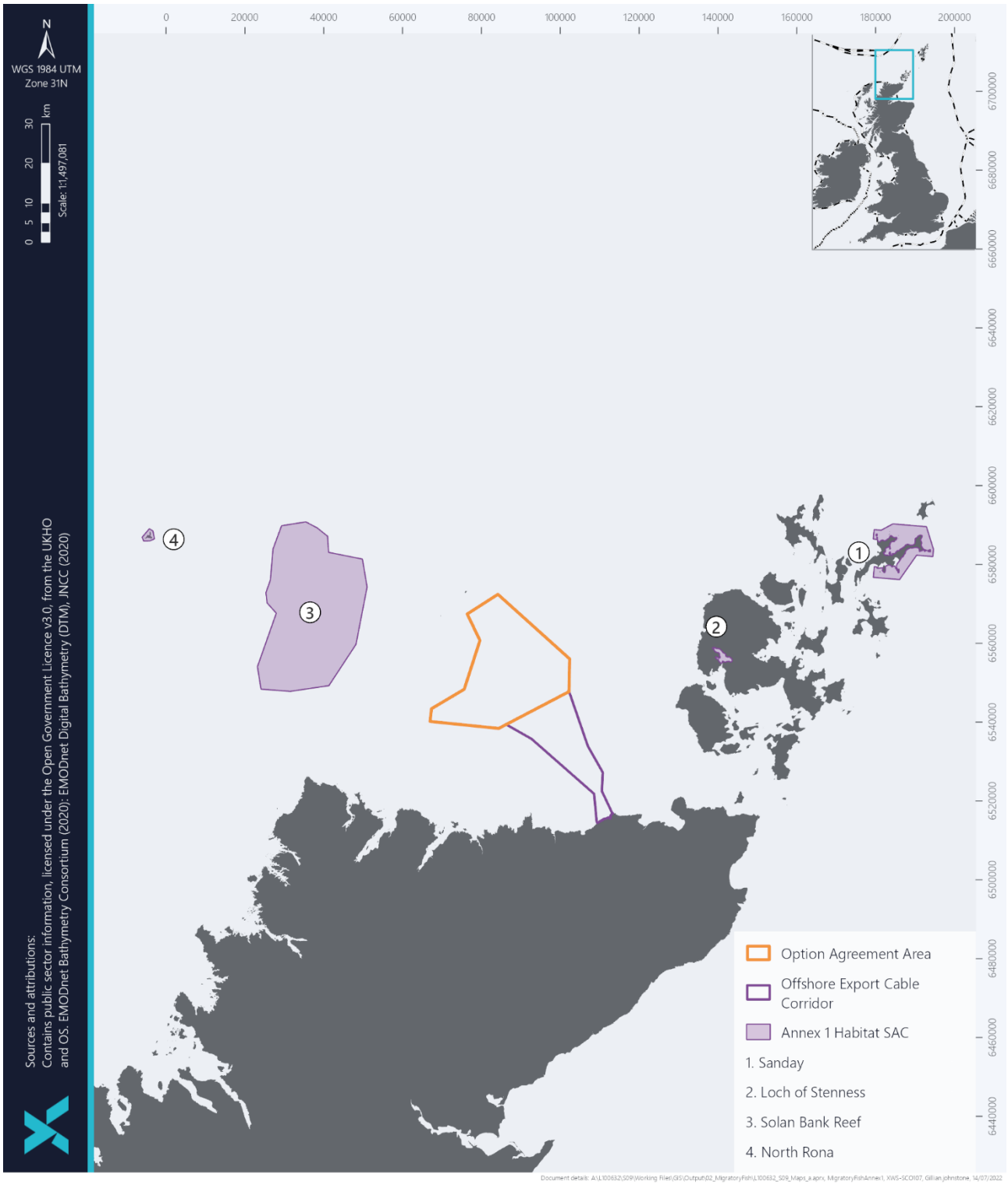

Figure 5-1 Location of European sites designated for Annex I habitats with potential connectivity to the offshore Project

The European sites across the North coast of Scotland and Orkney region, that are the closest to the offshore Project, are designated for reefs, coastal lagoons, sandbanks slightly covered by seawater all the time, mudflats and sandflats not covered by seawater at low tide and submerged or partially submerged sea caves, all listed as Annex I Habitat by the European Habitats Directive. Consideration has been given to the potential pathways for LSE to protected Annex I habitats from the offshore Project, including:

- Pre-construction, construction and decommissioning:
  - Temporary habitat loss/ disturbance;
  - Long-term loss or damage to benthic habitats and species;
  - Increases to Suspended Sediment Concentrations (SSC) and associated deposition;
  - Changes in water and sediment quality from accidental release of pollutants;
  - Increased risk of introduction and spread of Invasive Non-Native Species (INNS);
  - Removal of hard substrate during decommissioning; and
  - Effects from the release of sediment bound contaminants.
- Operation and maintenance:
  - Changes in physical processes;
  - Seabed abrasion associated with Project infrastructure (e.g. anchor chains if floating structures are progressed);
  - Changes in water and sediment quality due to pollution from accidental discharges from vessels during operation and maintenance;
  - Increases to SSC and associated deposition;
  - Temporary habitat loss/ disturbance from maintenance activities;
  - Colonisation of hard structures;
  - Effects from the release of sediment bound contaminants;
  - Effects from any thermal load or Electromagnetic Fields (EMF) arising from the cables during operation; and
  - Increased risk of introduction and spread of INNS.

However, there are no European sites that meet the screening criteria outlined in section 5.1. All European sites designated for Annex I habitat are located beyond 10 km from the offshore Project. The nearest European sites is the Solan Bank Reef SAC located 25 km from the offshore Project. Given these distances, there is not expected to be any potential for LSE from increased suspended sediments, sediment abrasion, and smothering to the Annex I reef features. The predominant current in the Pentland Firth runs west to east, and the volumes of resuspended sediments will be limited.

As such it is concluded that there is no connectivity between the offshore Project and Annex I habitats protected within designated European sites and therefore no potential LSE.

6 EUROPEAN SITES DESIGNATED FOR DIADROMOUS FISH AND ASSOCIATED FEATURES

6.1 Initial screening criteria

This section outlines the results of the stepwise process to identify European sites with relevant diadromous fish (i.e. fish that migrate between freshwater and marine environments) species and associated species (e.g. freshwater pearl mussel) to be taken forward to the assessment and determination of no potential LSE. The initial screening criteria utilised to identify European sites with relevant diadromous fish species are outlined below:

- European sites that overlap with the offshore Project boundary; and
- European sites designated for diadromous fish with migratory routes that are likely to cross the offshore Project or the ZOI of the offshore Project.

6.2 Identification of sites and features with connectivity

6.2.1 Atlantic salmon

There are no European sites with Atlantic salmon (*Salmo salar*) features that overlap with the offshore Project boundary. However, the River Naver, Thurso and Borgie SACs discharge in the vicinity of the offshore Project, along the North coast of Caithness. Due to the proximity of these SACs to the offshore Project, connectivity with the offshore Project cannot be ruled out.

Atlantic salmon life stages

The life cycle of Atlantic salmon is displayed in Figure 6-1. Atlantic salmon spawn in riverine environments, where adult females release eggs which adult males fertilise. The eggs then hatch and become alevins that feed from a yolk sac. Once the yolk sac is absorbed, the alevins are known as fry. Fry then become parr when the salmon are over a year old and vertical parr markings have developed. When the parr reach approximately 12 cm, the salmon goes through a transformation to enable survival in the marine environment and becomes a smolt that undertakes the migration to the marine environment to become an 'adult' (NS, 2020a; Atlantic Salmon Trust, 2016).

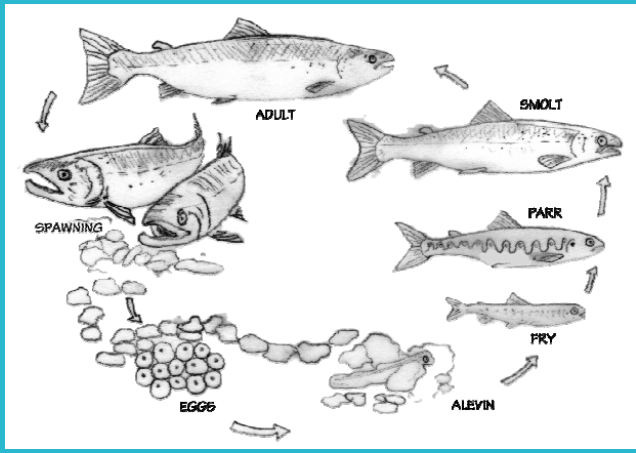

Figure 6-1 Atlantic salmon life cycle (Atlantic Salmon Trust, 2016)

Adults can either spend a single winter (i.e. 1 sea-winter (1SW) or grilse) or multiple winters at sea (MSW) and their migration back to freshwater is dictated by hormones and this usually occurs between April and November (Atlantic Salmon Trust, 2016). Grilse tend to occupy the smaller rivers on the west coast, whereas MSW salmon dominate the rivers on the north and east coasts of Scotland (Malcom *et al.*, 2010). Once adult salmon have spawned, they are known as kelts and may or may not migrate back out to sea again (Atlantic Salmon Trust, 2016).

There is also the potential for European sites, which have Atlantic salmon as qualifying features, to have connectivity with the offshore Project despite being located a large distance away. This is due to the mobile nature of migrating

fish, either migrating as smolts from rivers to at-sea feeding grounds, or as adults returning to natal rivers to spawn (Malcom *et al.*, 2010; Downie *et al.*, 2018). Limited information is currently available on diadromous fish at-sea migratory routes, both as post-smolts and returning adults. However, available tracking and tagging data for Atlantic salmon (*Salmo salar*) indicates that the Pentland Firth may be an important migratory route for returning adults and smolts to / from the north and east coasts of Scotland (Malcom *et al.*, 2010; Youngson, 2017).

Tagging studies suggest a west-to-east migration of returning Atlantic salmon across the Pentland Firth (Figure 6-2) (Malcom *et al.*, 2010; Youngson, 2017). Furthermore, a combination of genetic assignment and tracking studies show that adults returning to rivers along the north coast of Scotland are not only from local river stocks but also from rivers hundreds of kilometres away (Downie *et al.*, 2018). This may result from some individuals taking a convoluted route for migration, entering multiple rivers before selecting the final river to spawn (Cauwelier *et al.*, 2015; Downie *et al.*, 2018; Armstrong *et al.*, 2018). Early tagging studies, summarised in Malcom *et al.*, (2010), indicate that the movements of returning salmon from rivers south of the Aberdeenshire coast may primarily travel in a northerly direction. It is acknowledged that there may be some interaction between salmon returning to the rivers of the south of the River Dee. However, based on available information no potential LSE is predicted in this respect.

Information on smolt at-sea migration routes is currently limited. However, recent tracking data for smolts from the River Wick (Caithness) and the Cromarty Firth suggest that smolts could utilise tidal currents for at least part of their migration, and therefore, the strong tidal currents within the Pentland Firth may act as a low energy migration route for smolts migrating towards offshore feeding grounds (Newton *et al.*, 2021; McIlvenny *et al.*, 2021). Ounsley *et al.*, (2020) postulated in a modelling exercise that post-smolts are likely to utilise a number of different cues whilst migrating, including current following or compass driven behaviours. The study indicated that smolts from different locations may have to adopt differing trajectories and behaviours to reach their feeding grounds and explored the potential that smolts originating from east coast rivers performed their most 'successful' migration when migrating in northern compass-driven direction (also influenced by local currents), with an offshore route which passed west of the Shetland Islands. A north-west compass-driven migration, which passes through the Pentland Firth, and therefore potentially overlapping with the offshore Project, was also deemed potentially successful to reach offshore feeding grounds, albeit to a lesser extent (Ounsley *et al.*, 2020). However, the authors clearly acknowledge the limitations of such modelled scenarios and the requirement for further, validatory research. The offshore migration of smolts from east coast rivers is also consistent with recent evidence from smolt tagging studies indicating that smolts from the Cromarty Firth and the River Dee head rapidly in an easterly direction, suggesting an offshore migratory route across the North Sea (Newton *et al.*, 2017; Newton *et al.*, 2021; Main, 2021). McIlvenny *et al.*, (2021) also suggest that smolts rapidly enter the North Sea after a relatively short coastal migration, and may or may not re-enter coastal areas on their migration towards their feeding grounds. It is acknowledged that this is an area of further research and that it is possible for some smolts from east coast rivers to utilise the Pentland Firth on their migrations. However, given the available data described above, the offshore Project area is not expected to be significant migratory route for post-smolts from rivers on the east coast of Scotland.

It is therefore proposed that no potential LSE is predicted for European sites further south of the River Dee SAC. However, the limitations of the available supporting literature are recognised, along with the remaining research questions posed by many authors in the field.

Returning adults from Scottish west coast SACs are also considered to be less likely to utilise the Pentland Firth, although east-to-west migrations do occur (Youngson, 2017). Returning adults from west coast SACs may run off course and then adjust their route to return to their natal river in an east-to-west direction (Malcom *et al*., 2010; Youngson, 2017). The only European site located on the south-west of Scotland that is designated for Atlantic salmon is the Bladnoch SAC, approximately 400 km from the offshore Project. Considering this distance, and the fact migrations across the Pentland Firth are mainly east to west, no potential LSE is concluded. This SAC has therefore been screened out for further assessment.

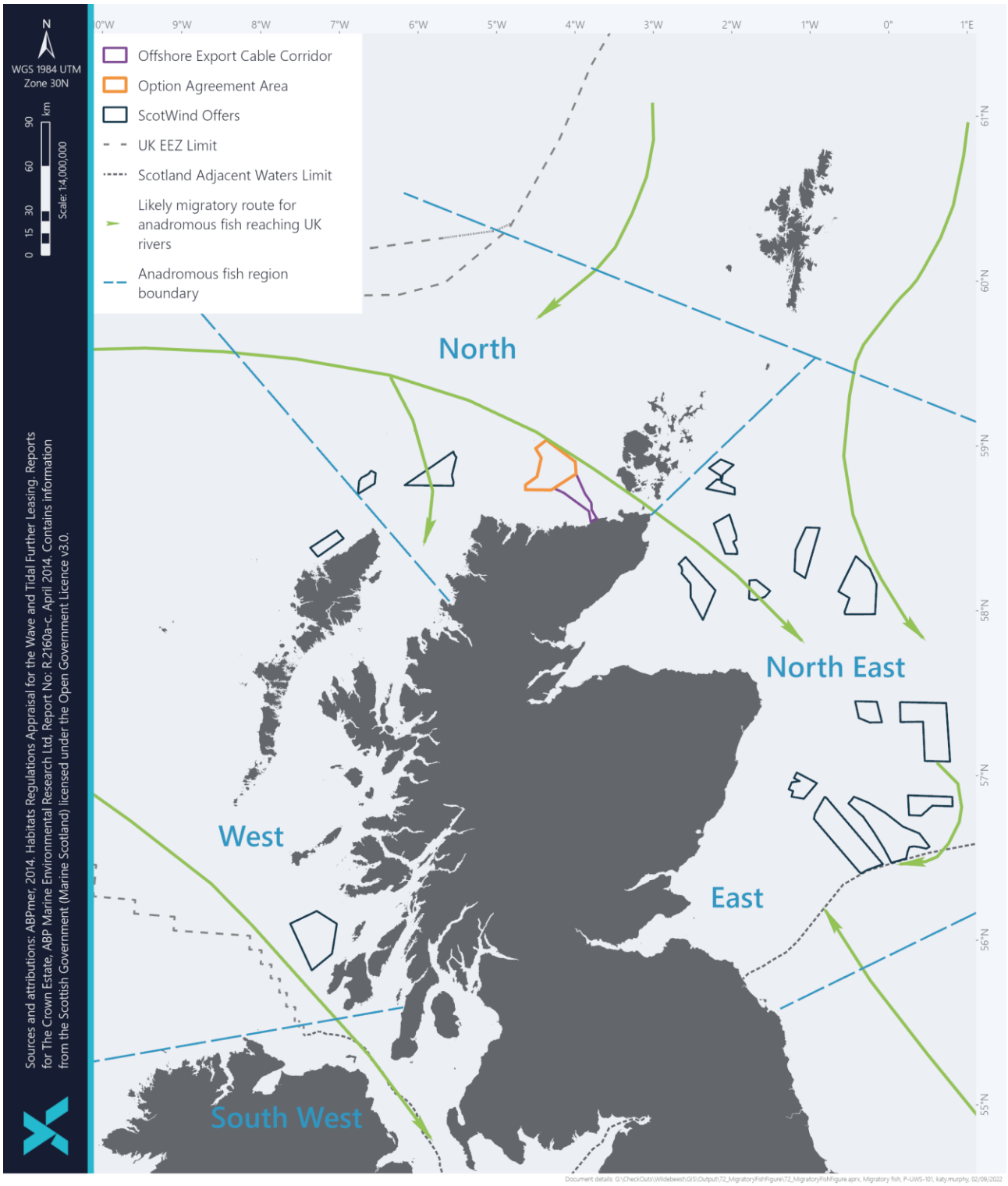

Figure 6-2 Potential migration routes of homing adult Atlantic salmon (ABPmer, 2014, reproduced in Scottish Government, 2020b)

6.2.2 Sea lamprey and river lamprey

With regards to sea lamprey (*Petromyzon marinus*), once they enter the sea from their rivers their movements are not known, making it difficult to determine connectivity between sea lamprey sites and the offshore Project. The closest European site designated for sea lamprey is River Spey SAC, approximately 108 km from the offshore Project. Considering this distance, it is unlikely that the offshore Project will have an LSE on European sites designated for this species. Therefore, sea lamprey have been screened out of the HRA and will instead be considered fully within the EIA.

River lamprey (*Lampetra fluviatilis*) migrate from their coastal feeding grounds into freshwater to spawn during the autumn and spring (NS, 2020b). The closest European site designated for this species is approximately 187 km from the offshore Project. The rivers (and river mouths) designated for river lamprey do not overlap with the offshore Project, and therefore, connectivity is not anticipated with river lamprey and this species will not be assessed further.

6.2.3 Freshwater pearl mussel

There is a direct relationship between salmonids and freshwater pearl mussels (*Margaritifera margaritifera*) as they are reliant on salmonids for population sustainability and juvenile recruitment. Therefore, this will be considered in parallel with the test for no potential LSE on European sites with Atlantic salmon listed as a qualifying feature, as the only potential pathway for LSE to freshwater pearl mussel will be indirect effects from effects to Atlantic salmon. It is acknowledged that some European sites designated for freshwater pearl mussel only (and not Atlantic salmon) were recommended for consideration through the Scottish Ministers Scoping Opinion (MS-LOT, 2022). For European sites designated for freshwater pearl mussel where Atlantic salmon are not listed as a qualifying feature / interest, due to the direct relationship between Atlantic salmon and freshwater pearl mussel, indirect effects as a result of effects to Atlantic salmon will also be assessed.

6.2.4 Initial screening results

Based on the criteria outlined in section 6.1, the SACs designated for diadromous fish for which potential connectivity with the offshore Project cannot be ruled out are listed in Table 6-1 and are shown in Figure 6-3. This has taken into account feedback from the Scottish Ministers Scoping Opinion, which recommended consideration of Berriedale and Langwell Waters, Foinaven, Little Gruinard River, River Spey, River Oykel, River Moriston and River Evelix SACs, in addition to the River Thurso, Naver and Borgie SACs that were identified within the Scoping Report for the Project.

There are no SACs designated for diadromous fish that overlap with the offshore Project, and therefore no SACs have been taken forward for determination of no potential LSE on this basis. However, connectivity with 13 river SACs designated for Atlantic salmon on the west, north and north east coasts of Scotland cannot be ruled out, as described in section 6.2.1. The Foinaven and River Evelix SACs, designated for freshwater pearl mussel were also identified as having potential connectivity with the offshore Project in the Scottish Ministers Scoping Opinion (MS-LOT, 2022).

SACs designated for sea lamprey or river lamprey have been screened out of this Offshore HRA Screening Report.

Table 6-1 Summary of the European sites designated for diadromous fish taken forward for determination of no potential LSE

SITE NAME	DIADROMOUS FISH QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 6-1 ID
River Thurso SAC	Atlantic salmon (*Salmo salar*).	39.5	8.6	1
River Borgie SAC	Atlantic salmon (*Salmo salar*); and Freshwater pearl mussel (*Margaritifera margaritifera*).	28.4	28.9	2
River Naver SAC	Atlantic salmon (*Salmo salar*); and Freshwater pearl mussel (*Margaritifera margaritifera*).	30.5	29.0	3
Foinaven SAC	Freshwater pearl mussel (*Margaritifera margaritifera*).	39.2	52.4	4
Berriedale and Langwell Waters SAC	Atlantic salmon (*Salmo salar*).	63.5	36.6	5
Langavat SAC	Atlantic salmon (*Salmo salar).*	147.4	165.3	6
North Harris SAC	Atlantic salmon (*Salmo salar*); and Freshwater pearl mussel (*Margaritifera margaritifera).*	161.3	178.7	7
River Oykel SAC	Atlantic salmon (*Salmo salar*); and Freshwater pearl mussel (*Margaritifera margaritifera*).	68.0	77.0	8

SITE NAME	DIADROMOUS FISH QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 6-1 ID
River Evelix SAC	Freshwater pearl mussel (*Margaritifera margaritifera*).	95.4	79.4	9
Little Gruinard River SAC	Atlantic salmon (*Salmo salar*).	118.0	136.9	10
River Spey SAC	Atlantic salmon (*Salmo salar*); Freshwater pearl mussel (*Margaritifera margaritifera*); and Sea lamprey (*Petromyzon marinus*).	138.7	108.2	11
River Moriston SAC	Atlantic salmon (*Salmo salar*); and Freshwater pearl mussel (*Margaritifera margaritifera*).	174.0	162.1	12
River Dee SAC	Atlantic salmon (*Salmo salar*); and Freshwater pearl mussel (*Margaritifera margaritifera).*	193.6	166.9	13

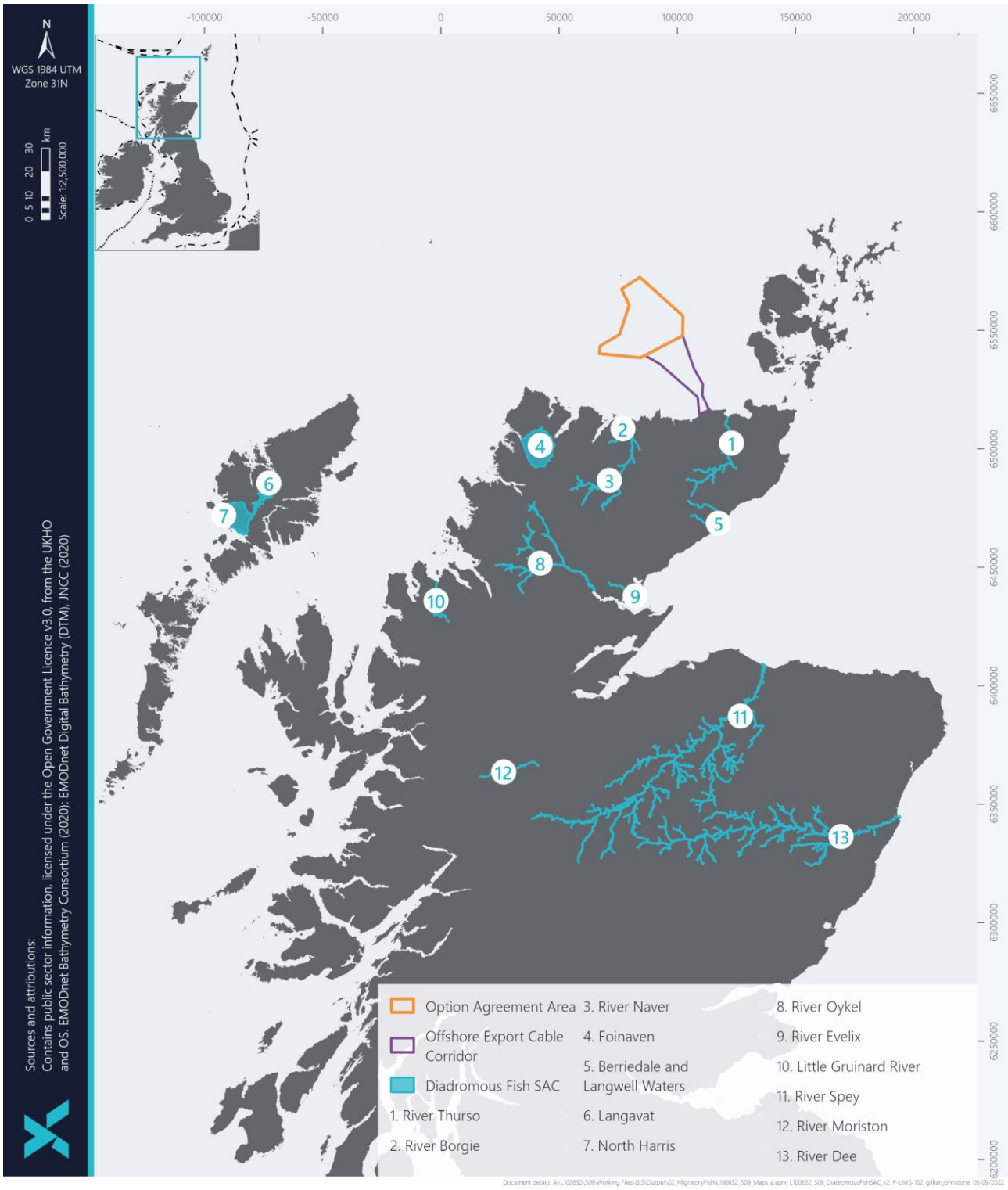

Figure 6-3 Location of European sites designated for diadromous fish with connectivity to the offshore Project

6.3 Potential pathways for LSE

A number of potential pathways for LSE on diadromous fish designated within SACs with potential connectivity with the offshore Project have been identified. These pathways may occur during the pre-construction, construction, operation and maintenance, and decommissioning stages of the offshore Project, and are as follows:

- Pre-construction, construction and decommissioning:
  - Temporary habitat disturbance, change or loss;
  - Temporary increases in Suspended Sediment Concentration (SSC) and associated sediment deposition;
  - Mortality, injury or disturbance from underwater noise;
  - Accidental release of pollutants; and
  - Indirect effects related to changes in availability or distribution of prey species.
- Operation and maintenance:
  - Long-term habitat loss, change and disturbance;
  - Introduction of new hard substrate and potential for fish or predator aggregation;
  - Electromagnetic (EMF) effects;
  - Accidental release of pollutants;
  - Underwater noise associated with fixed foundations and associated operation and maintenance activities;
  - Underwater noise associated with floating foundations and associated operation and maintenance activities;
  - Barrier effects to diadromous fish from the presence of fixed foundations or floating platforms and associated infrastructure, visual effects underwater noise and EMF;
  - Ghost fishing due to lost fishing gear becoming entangled in floating infrastructure; and
  - Indirect effects related to changes in availability or distribution of prey species.

For European sites designated for freshwater pearl mussel, indirect effects resulting from effects to Atlantic salmon have been assessed.

6.4 Determination of no potential LSE

Table 6-2 presents the results of the assessment to determine no potential LSE as a result of the offshore Project on European sites designated for diadromous fish features. Justification for whether no potential LSE can be concluded is also provided. Where no potential LSE is concluded, the particular feature / pathway for LSE has been greyed out. Where all potential pathways for LSE in a Project stage have been screened out then the Project stage column has also been greyed out and when all potential pathways for LSE across all Project stages have been screened out, then the European site has been greyed out as well.

Each possible site where no potential LSE cannot be objectively concluded is discussed and appraised to determine whether:

- There is no potential LSE upon the SAC or qualifying feature (and so screening out of any future RIAA can take place); or
- It is likely that no potential LSE cannot be concluded and hence further consideration within a RIAA is required to assess affects upon the integrity of the SAC site.

Table 6-2 Determination of no LSE for SACs designated for diadromous fish

DIADROMOUS FISH QUALIFYING INTEREST / FEATURE	EUROPEAN SITE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Atlantic salmon	River Thurso SAC; River Naver SAC; River Borgie SAC; Berriedale and Langwell Waters SAC; Little Gruinard River SAC; River Spey SAC; River Oykel SAC; River Moriston SAC; River Dee SAC; Langavat SAC; and North Harris SAC.	Pre-construction, construction and decommissioning	Temporary habitat disturbance or loss	No potential LSE concluded	There will be no direct habitat disturbance or loss within any of the SAC's designated for Atlantic salmon. However, there is the potential for Atlantic salmon from these SACs to utilise the habitats that could be disturbed during the construction or decommissioning of the offshore Project as feeding grounds. Atlantic salmon forage over very large areas, with similar habitats available across the North Sea and Atlantic Ocean (Atlantic Salmon Trust, 2022). Atlantic salmon are pelagic species, feeding in the water column. Therefore, seabed disturbance is not likely to affect this species. Considering this, Atlantic salmon are unlikely to be significantly affected by any temporary habitat disturbance or loss as a result of the offshore Project. Therefore, there is considered to be no potential for LSE on European sites designated for Atlantic salmon as a result of temporary habitat loss or disturbance.
			Temporary increases in SSC and associated sediment deposition	No potential LSE concluded	Due to the mobile nature of Atlantic salmon, there is the potential for them to be present in areas affected by increased SSCs or sediment deposition as a result of the offshore Project. Increased SSC and associated sediment deposition will not affect any SAC directly, but could affect the habitats utilised by this species, and therefore, result in an indirect effect. However, as described above Atlantic salmon utilise very large feeding areas and considering the temporary and localised nature of this effect in conjunction with the fact that the sediments are expected to be rapidly dispersed by the strong tidal currents present in the Pentland Firth and Scottish North coast, no potential for LSE on European sites designated for Atlantic salmon as a result of temporary increases in SSC and associated sediment deposition are expected.
			Mortality, injury or disturbance from underwater noise	No potential LSE cannot be concluded	There is the potential for underwater noise associated with the construction of the offshore Project, in particular the piling activities, to result in mortality, injury or disturbance to Atlantic salmon and effect migratory patterns. However, the effects of underwater noise from piling and other sources on Atlantic salmon remain poorly understood (Gilson *et al.*, 2022). Atlantic salmon are potentially sensitive to underwater noise, although to a lesser extent than some marine fish (e.g. herring) (Harding *et al.*, 2016). Harding *et al* (2016) showed no significant behavioural or physiological response by adult Atlantic salmon to piling activities. However, this study was conducted in a laboratory environment and the relevance to wild salmon is not clear (Harding *et al.*, 2016). Considering the limited understanding on the effect of underwater noise from pile-driving on Atlantic salmon and that underwater noise modelling has yet to be carried out for the offshore Project, LSE on European sites designated for Atlantic salmon from underwater noise cannot be ruled out.
			Accidental release of pollutants	No potential LSE concluded	Accidental releases of pollutants may arise as a result of accidental spills from vessels or other equipment and have detrimental effects on Atlantic salmon. However, the risk and effect of accidental releases of hazardous substances will be reduced through the implementation of the Environmental Management Plan, including measures for compliance with international requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL) convention, as well as best practice for works in the marine environment (e.g. preparation of Shipboard Oil Pollution Emergency Plans (SOPEP)). In this manner, accidental release of potential contaminants from construction vessels will be strictly controlled and procedures will be in place to minimise the effect of any accidental release if it occurs. Therefore, there is considered to be no potential for LSE on European sites designated for Atlantic salmon as a result of the accidental release of pollutants during the construction and decommissioning stage.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	There is the potential for Atlantic salmon to be indirectly affected by changes in prey abundance or distribution. However, Atlantic salmon utilise very large feeding grounds, with similar habitats available across the North Sea and Atlantic Ocean, and any effects during construction and decommissioning will be temporary and spatially limited.

DIADROMOUS FISH EUROPEAN SITE QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
				Therefore, there is considered to be no potential for LSE as a result of indirect effects related to changes in availability or distribution of prey species.
	Operation and maintenance	Long-term habitat loss and disturbance	No potential LSE concluded	Long-term habitat loss may occur as a result of the presence of installed infrastructure (e.g. anchors, foundations, scour protection and external cable protection), as this may lead to a change in the seabed type, potentially altering the feeding habitat utilised by Atlantic salmon designated within SACs. Atlantic salmon are pelagic species, feeding in the water column. Therefore, seabed disturbance is not likely to affect this species. As described for construction and decommissioning, Atlantic salmon utilise wide feeding areas. Considering the localised areas potentially disturbed or lost, and the fact that Atlantic salmon are pelagic species, there is considered to be no potential for LSE on European sites in relation to long-term habitat loss or disturbance.
		Introduction of new hard substrate and potential for fish or predator aggregation	No potential LSE cannot be concluded	Installed infrastructure may introduce new hard substrate for colonisation by marine organisms. Offshore infrastructure may act as a fish aggregation device (FAD), providing refuge for some species and potentially attracting larger predators. As highlighted by statutory nature conservation bodies (SNCBs) in the Scottish Ministers Scoping Opinion for the EIA Scoping Report, offshore wind farm sites may alter the abundance and distribution of predators, potentially reducing post-smolt survival (e.g. Friedland *et al.*, 2017). This potential effect remains poorly understood, and considering this, the potential for LSE cannot be ruled out.
		EMF effects	No potential LSE cannot be concluded	Atlantic salmon utilise EMF during their migrations, and therefore, EMF from buried or suspended cables may alter or impede their navigational cues (Gibson *et al.*, 2022; Gill *et al.*, 2012). Evidence to date suggests that Atlantic salmon have a low sensitivity to EMF effects associated with marine renewable energy (e.g. Armstrong *et al.*, 2015). However, there is limited information available on this effect, especially in relation to cables suspended in the water column for floating foundations. Therefore, the potential for LSE cannot be ruled out.
		Accidental release of pollutants	No potential LSE concluded	As described for construction and decommissioning, accidental release of pollutants will be strictly controlled, and procedures will be in place to minimise the effect of any accidental release if it occurs. Therefore, there is considered to be no potential for LSE in relation to accidental release of pollutants during the operation and maintenance stage.
		Underwater noise associated with fixed foundations and associated operation and maintenance activities	No potential LSE concluded	The evidence base suggests that the level of operational noise is significantly less than construction noise and detectable only at short ranges from each WTG (Andersson *et al.*, 2011). Therefore, the potential for any behavioural and physiological effects as a result of the operational noise associated with fixed-bottom WTGs is considered to be low. Any potential disturbance from underwater noise associated with vessels utilised during the operation and maintenance stage is also expected to be highly localised and temporary. Therefore, there is considered to be no potential for LSE on European sites designated for Atlantic salmon in relation to underwater noise associated with fixed foundations and operation and maintenance activities. The potential for the cumulative sound source from operating WTGs to result in barrier effects is considered for barrier effects below.
		Underwater noise associated with floating foundations and associated operation and maintenance activities	No potential LSE cannot be concluded	The underwater noise from operational floating turbines remains poorly understood. It was highlighted by SNCBs in response to the EIA Scoping Report that floating turbines may act as resonating chamber for underwater noise. Therefore, the potential for LSE cannot be ruled out. As described above, underwater noise effects associated with vessels during operation and maintenance are expected to be minimal.

DIADROMOUS FISH QUALIFYING INTEREST / FEATURE	EUROPEAN SITE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effects to diadromous fish from the presence of fixed foundations or floating platforms and associated infrastructure, visual effects underwater noise and EMF	No potential LSE cannot be concluded	There is currently limited evidence indicating that the presence of fixed or floating wind turbines presents a significant barrier effect to Atlantic salmon. However, not only may the physical presence of the turbine infrastructure act as a barrier to movement (e.g. through visual disturbance from shadow flicker), but EMF, underwater noise or a combination of these effects may result in the displacement of Atlantic salmon with implications on migratory patterns (Copping *et al.*, 2021). The cumulative sound source of WTGs as static sources of constant noise is potentially of concern in areas of low ambient noise (Tougaard *et al.*, 2020). Although there is limited information available on the potential for marine renewable energy devices to act as a barrier to movement and displace Atlantic salmon from their migratory routes, the potential for LSE cannot be ruled out.
			Ghost fishing due to lost fishing gear becoming entangled in floating infrastructure	No potential LSE cannot be concluded	There is the potential for lost gear to become entangled within mooring lines and suspended cables associated with floating substructures, if this technology is utilised, leading to ghost fishing which may negatively affect Atlantic salmon migrating through the offshore Project.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	As described for construction and decommissioning, Atlantic salmon feed over wide areas. Therefore, considering the relatively small area of the feeding grounds affected by the offshore Project, there is considered to be no potential for LSE as a result of indirect effects related to changes in availability or distribution of prey species.
Freshwater pearl mussel	River Naver SAC; River Borgie SAC; River Spey SAC; River Moriston SAC; River Dee SAC; North Harris SAC; Foinaven SAC; and River Evelix SAC.	Pre-construction, construction and decommissioning	Indirect effects from effects to Atlantic salmon	No potential LSE cannot be concluded	The effects screened in as having the potential for LSE on Atlantic salmon described above will be considered in relation to their potential to indirectly effect the freshwater pearl mussel qualifying interests of European sites.
		Operation and maintenance	Indirect effects from effects to Atlantic salmon	No potential LSE cannot be concluded	

7 EUROPEAN SITES DESIGNATED FOR MARINE MAMMAL FEATURES

7.1 Initial screening criteria

There are five marine mammal species which are listed in Annex II of the Habitat's Directive, and have therefore been considered in the LSE screening assessment. These are:

- Grey seal (*Halichoerus grypus*);
- Harbour seal (*Phoca vitulina*);
- Harbour porpoise (*Phocoena phocoena*);
- Bottlenose dolphin (*Tursiops truncatus*); and
- European otter (*Lutra lutra*).

The screening criteria utilised to identify European sites with relevant Annex II marine mammal species (SACs), which have connectivity to the offshore Project are outlined below:

- Criterion 1: European sites which spatially overlap with the boundary of the offshore Project; and
- Criterion 2: European sites which are located within the range (foraging range or management unit) of the Annex II marine mammal species for which they are designated.

7.2 Identification of sites and features with connectivity

7.2.1 Pinnipeds

The spatial parameters for the Annex II pinniped species which have been used to determine the search area for European sites under Criterion 2 are outlined in Table 7-1.

Table 7-1 Search area used to identify SACs with potential connectivity to the offshore Project

SPECIES	JUSTIFICATION	SEARCH AREA
Grey seal	Grey seals have been observed to forage more than 100 km from their haul-out sites, but with localised regions of higher density generally concentrated closer to haul-out sites, especially during the breeding season (Carter *et al.*, 2020). As per the scoping advice received from NS (26 May 2022) and MS-LOT (29 June 2022), all SACs designated for grey seal within 20 km of the offshore Project have been screened in.	20 km (at sea distance)

SPECIES	JUSTIFICATION	SEARCH AREA
Harbour seal	Harbour seals typically forage around 30-50 km from the coastline, with highest densities near their haul out sites (Bailey, Hammond and Thompson, 2014), although longer travel distances do occur (e.g. Carter *et al.*, 2020 gives a maximum distance from a haul-out as 273 km). As per the scoping advice received from NS (26 May 2022) and MSS-LOT (29 June 2022), all SACs designated for harbour seal within 50 km of the offshore Project have been screened in.	50 km (at sea distance)

7.2.2 Cetaceans

Bottlenose dolphin have been scoped out of the assessment following advice from NS, based on there being very few sightings of the species on the north coast of Scotland or around Orkney, and no evidence of connectivity of individuals to Moray Firth SAC (NautreScot *pers comm*, email received 7 July 2022). The Moray Firth SAC is the closest European site designated for bottlenose dolphin, located 131.3 km from the offshore Project (measured as the nearest at-sea distance), and supports the only known semi-resident population of bottlenose dolphin in the North Sea. The bottlenose dolphins utilising the Moray Firth SAC are part of the Scottish east coast population of approximately 200 individuals (IAMMWG, 2015; 2022). There were a lack of observations of bottlenose dolphin on the north coast of Scotland during the SCANS-III surveys (Hammond *et al.*, 2021). Although there have been sightings of bottlenose dolphin by Marine Mammal Observers (MMOs) during the geophysical surveys and a single sighting during the programme of digital aerial surveys of the offshore array area, there is no evidence that these have connectivity to the Moray Firth SAC. Most likely these sightings are of individuals from the larger offshore populations that do incur onto the shelf. European sites further away than the Moray Firth SAC are also assumed to have no connectivity.

The spatial parameters for the Annex II cetacean species harbour porpoise which have been used to determine the search area for European sites under Criterion 2 are outlined in Table 7-2.

Table 7-2 Search area used to identify SACs with potential connectivity to the offshore Project

SPECIES	JUSTIFICATION	SEARCH AREA
Harbour porpoise	As recommended by NS (26 May 2022) and MS-LOT (29 June 2022), SACs within The Inter-Agency Marine Mammal Working Group (IAMMWG) Management Units (MU) (IAMMWG (2022) which overlap with the offshore Project have been screened in. As both the OAA and the offshore export cable corridor overlap the boundary between the West Scotland and North Sea IAMMWG MUs, SACs which are within either of these MUs have been screened in.	West Scotland and North Sea IAMMWG MUs

7.2.3 Otter

European otter have also been scoped out as there is considered to be no potential for effects on this species as a result of offshore works. This species will be covered by the separate HRA process for the onshore elements (landward of MLWS) of the offshore Project, should it be required.

7.2.4 Initial screening results

Based on the criteria outlined in section 7.1, the European sites designated for marine mammals for which potential connectivity with the offshore Project cannot be ruled out are listed in Table 7-3 and are shown in Figure 7-1. The initial screening process has identified 29 SACs designated for Annex II marine mammals which have potential connectivity to the offshore Project and are to be taken forward for determination of no potential LSE. This includes three SACs within UK waters and 27 transboundary European sites (including Doggersbank/Doggerbank SAC which spans across Dutch and German waters).

There are no European sites with Annex II marine mammal species as qualifying features which overlap with the offshore Project, therefore no SACs have been taken forward for determination of no potential LSE on this basis. All European sites with harbour seal or grey seal qualifying interest features are outside of the range outlined in Table 7-1, with the closest site for grey seal at 70.1 km (Faray and Holm of Faray SAC) and for harbour seal at 85.5 km (Sanday SAC) from the offshore Project. Therefore, all European sites designated for harbour seal and grey seal have been screened out, and only those designated for harbour porpoise are to be taken forward for determination of no potential LSE.

Table 7-3 Summary of the European sites designated for marine mammals taken forward for determination of no potential LSE

SITE NAME	COUNTRY	MARINE MAMMAL QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 7-1 ID
UK SACs					
Inner Hebrides and the Minches SAC	UK	Harbour Porpoise	93.9	110.9	1
Skerries and Causeway SAC	UK	Harbour Porpoise	453.3	496.0	2
Southern North Sea SAC	UK	Harbour Porpoise	506.7	491.3	3

SITE NAME	COUNTRY	MARINE MAMMAL QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 7-1 ID
Transboundary SACs					
Doggersbank SAC	Netherlands	Harbour Porpoise	568.3	551.2	4
Doggerbank SAC	Germany	Harbour Porpoise	586.9	569.9	5
Klaverbank SAC	Netherlands	Harbour Porpoise	685.3	669.8	6
Gule Rev SAC	Denmark	Harbour Porpoise	759.6	744.1	7
Store Rev SAC	Denmark	Harbour Porpoise	795.0	779.5	8
Sydlige Nordsø, SAC	Denmark	Harbour Porpoise	796.6	781.2	9
Sylter Außenriff SAC	Germany	Harbour Porpoise	814.2	798.7	10
Skagens Gren og Skagerak SAC	Denmark	Harbour Porpoise	839.5	824.0	11
Waddenzee SAC	Netherlands	Harbour Porpoise	855.4	839.9	12
Borkum-Riffgrund SAC	Germany	Harbour Porpoise	855.8	840.3	13
Vadehavet med Ribe Å og Varde Å vest for Varde SAC	Denmark	Harbour Porpoise	873.3	857.9	14
Nationalpark Niedersächsisches Wattenmeer SAC	Germany	Harbour Porpoise	900.3	884.8	15
NTP S-H Wattenmeer und angrenzende Küstengebiete SAC	Germany	Harbour Porpoise	902.6	887.2	16

SITE NAME	COUNTRY	MARINE MAMMAL QUALIFYING INTEREST / FEATURES	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 7-1 ID
Helgoland mit Helgoländer Felssockel SAC	Germany	Harbour Porpoise	940.8	925.3	17
Steingrund SAC	Germany	Harbour Porpoise	957.8	942.4	18
Voordelta SAC	Netherlands	Harbour Porpoise	980.9	965.4	19
Hamburgisches Wattenmeer SAC	Germany	Harbour Porpoise	985.2	969.8	20
Vlaamse Banken SAC	Belgium	Harbour Porpoise	1007.3	981.7	21
Oosterschelde SAC	Netherlands	Harbour Porpoise	1011.0	995.6	22
Bancs des Flandres SAC	France	Harbour Porpoise	1021.9	996.3	23
Vlakte van de Raan SAC	Netherlands	Harbour Porpoise	1023.8	998.2	24
Westerschelde & Saeftinghe SAC	Netherlands	Harbour Porpoise	1030.8	1001.8	25
Récifs Gris-Nez Blanc-Nez SAC	France	Harbour Porpoise	1044.9	1019.4	26
Ridens et dunes hydrauliques du détroit du Pas-de-Calais SAC	France	Harbour Porpoise	1060.5	1034.9	27
Baie de Canche et couloir des trois estuaires SAC	France	Harbour Porpoise	1099.1	1073.5	28
Baie de Seine orientale SAC	France	Harbour Porpoise	1283.8	1258.2	29
Baie de Seine occidentale SAC	France	Harbour Porpoise	1295.4	1269.8	30

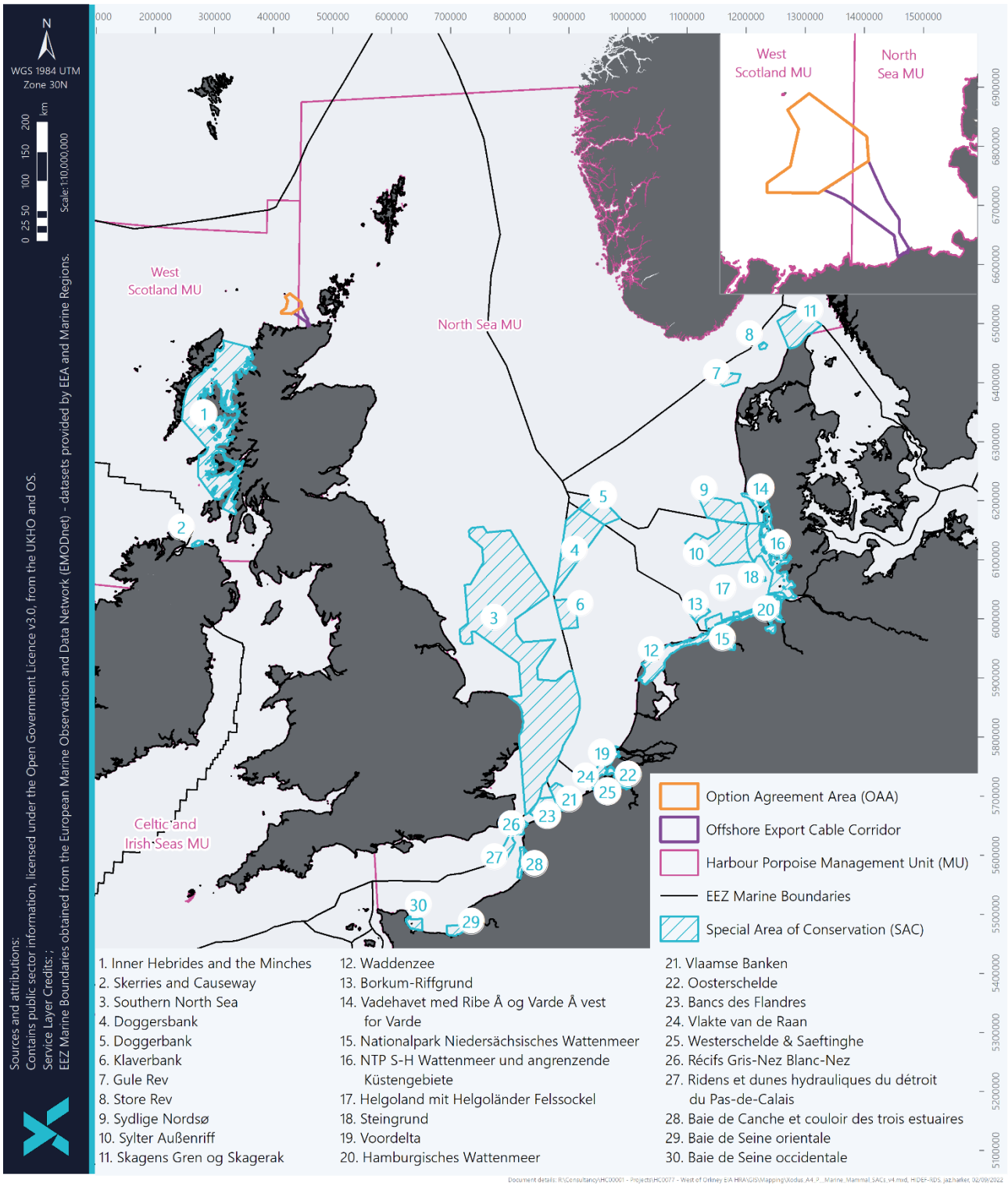

Figure 7-1 Location of SACs designated for marine mammal features with connectivity to the offshore Project

7.3 Potential pathways for LSE

A number of potential pathways for adverse effects on marine mammal qualifying features of European sites with potential connectivity with the offshore Project have been identified. These pathways may occur during the pre-construction, construction, operation and maintenance, and decommissioning stages of the offshore Project. There are also potential pathways for adverse effect on marine mammals from possible pre-construction activities (e.g. geophysical surveys and unexploded ordinance (UXO) clearance), for which a separate EPS licence and Marine Licence will also be applied for should they be required. The potential pathways for adverse effect are as follows:

- Pre-construction, construction and decommissioning:
  - Injury and disturbance from underwater noise-generating activities;
  - Disturbance due to physical presence and underwater noise from vessels;
  - Vessel collision;
  - Indirect effects related to changes in availability or distribution of prey species;
  - Effects related to decreasing marine water quality including increasing turbidity; and
  - Accidental release of pollutants.
- Operation and maintenance:
  - Underwater noise from fixed turbines (fixed WTG);
  - Underwater noise from floating turbines (floating WTG);
  - Disturbance due to physical presence and underwater noise from vessels;
  - Vessel collision;
  - Displacement or barrier effects associated with physical presence of devices and infrastructure;
  - Entanglement with moorings (floating WTG);
  - Effects related to decreasing marine water quality including increasing turbidity;
  - Risk associated with EMFs associated with subsea and midwater cabling (floating WTG);
  - Accidental release of pollutants;
  - Habitat change including foraging opportunities; and
  - Indirect effects related to changes in availability or distribution of prey species.

The scoping advice from NS (26 May 2022) recommended that disturbance due to physical presence of vessels and disturbance due to underwater noise from vessels should be considered separately given the differing sizes, types and number of vessels needed for the differing stages of development. However, these pressures are linked and occur simultaneously, unless the vessel is idle. There is insufficient evidence to support the assessment of physical presence separately, and vessel underwater noise studies are often subject to observer bias from the presence of the research vessel and cannot differentiate between the effects of vessel presence and vessel noise (Erbe *et al.*, 2019). Additionally, the magnitude of impact from underwater noise and physical presence of vessels will both increase with vessel size and number of vessels. Therefore, the assessment will consider the underwater noise and physical presence of vessels as a single pressure for each stage of the offshore Project.

In determining whether there is potential for LSE from underwater noise generating activities, European sites with harbour porpoise as a designated feature, which could be located within the ZOI of potential activities from the offshore Project has also been applied. The worst-case ZOI for marine mammals is from underwater noise generated during pile-driving activities and UXO detonation. The Effective Deterrent Range (EDR) for harbour porpoise, where the bulk of the effect on harbour porpoise is estimated to occur for pile driving and UXO detonation, is within 26km

from the activity (JNCC, DEFRA and Natural England, 2020). The worst-case ZOI from the site has been used as a highly conservative approach and the ZOI for all other activities fall within this worst-case distance.

7.4 Determination of no potential LSE

Table 7-4 presents the results of the assessment to determine no potential LSE as a result of the offshore Project on SACs designated for marine mammal features. Justification for whether no potential LSE can be concluded is also provided. Where no potential LSE is concluded, the particular site / pathway for LSE has been greyed out. Where all potential pathways for LSE in a Project stage have been screened out then the Project stage column has also been greyed out and when all potential pathways for LSE across all Project stages have been screened out, then the European site has been greyed out as well.

Each possible site where no potential LSE cannot be objectively concluded is discussed and appraised to determine whether:

- There is no potential LSE upon the European site or qualifying feature (and so screening out of any future RIAA can take place); or
- It is likely that no potential LSE cannot be concluded and hence further consideration within a RIAA is required to assess affects upon the integrity of the European site.

Table 7-4 Determination of no potential LSE for European sites designated for marine mammals

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Inner Hebrides and the Minches SAC	Harbour porpoise	Pre-construction, construction, and decommissioning	Injury and disturbance from underwater noise-generating activities;	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (93.9 km), the offshore Project is unlikely to constitute a particularly important area or foraging ground for harbour porpoise using the SAC. Harbour porpoise are wide ranging and forage over very large areas. The ZOI for underwater noise to harbour porpoise is 26km, therefore temporary disturbance from underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of this SAC. This is consistent with advice from NS which advised that due to the distance from the SAC no potential LSE can be concluded (Kim McEwen, *pers comm*, email received 20 July 2022). Therefore, there is no potential for LSE.
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the distance of the SAC from the offshore Project (93.9 km), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	Given the distance of the SAC from the offshore Project (93.9km), that the local increase in vessel traffic from the project is low when compared with existing vessel traffic around the north coast of Scotland, and that vessels will be slow moving or stationary within the offshore Project, there will not be a significant collision risk to the harbour porpoise feature of the SAC. Therefore, there is no potential for LSE.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (93.9 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using the SAC. Harbour porpoise are wide ranging and forage over very large areas. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of this SAC at such a distance. This is consistent with advice from NS which advised that due to the distance from the SAC no potential LSE can be concluded (Kim McEwen, *pers comm*, email received 20 July 2022). Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (93.9 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. Harbour porpoise are wide ranging and forage over very large areas These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Accidental release of pollutants	No potential LSE concluded	
		Operation and maintenance	Underwater noise from fixed turbines (fixed WTG)	No potential LSE concluded	Operational noise associated with fixed turbines has been screened out for Annex II marine mammal species, following scoping advice from NS (26 May 2022) and MS-LOT (29 June 2022). Noise levels generated by operational wind turbines are generally not considered significant, with behavioural responses only likely in close proximity to the wind turbines (MMO, 2014). The floating structure of floating wind turbines may act as a resonating chamber; increasing sound levels compared with fixed structures. However, given the distance
			Underwater noise from floating turbines (floating WTG)	No potential LSE concluded	

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					of the SAC from the offshore Project (93.9 km), there is unlikely to be LSE to the harbour porpoise feature of this SAC.
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the distance of the SAC from the offshore Project (93.9 km), and that the local increase in vessel traffic during operation is likely to be intermittent and low when compared with existing vessel traffic around the north coast of Scotland, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	Given the distance of the SAC from the offshore Project (93.9 km), that the local increase in vessel traffic from the offshore Project is low when compared with existing vessel traffic around the north coast of Scotland, and that vessels will be slow moving or stationary within the offshore Project, there will not be a significant increase in collision risk to the harbour porpoise feature of the SAC when compared with the current baseline. Therefore, there is no potential for LSE.
			Displacement or barrier effects associated with physical presence of devices and infrastructure	No potential LSE concluded	Given the distance of the SAC from the offshore Project (93.9 km), there will be no significant displacement of harbour porpoise from the SAC, and there will be no barrier effect to harbour porpoise transiting from/to the SAC. Therefore, there is no potential for LSE.
			Entanglement with moorings (floating WTG)	No potential LSE concluded	Given the distance of the SAC from the offshore Project (93.9 km), there is unlikely to be significant risk of entanglement to harbour porpoise that use the SAC. Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (93.9 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise that use this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Risk associated with electromagnetic fields (EMFs) associated with subsea and midwater cabling	No potential LSE concluded	
			Accidental release of pollutants	No potential LSE concluded	
			Habitat change including foraging opportunities	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (93.9 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. Harbour porpoise are wide ranging and forage over very large areas. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of this SAC at such a distance. This is consistent with advice from NS which advised that due to the distance from the SAC no potential LSEno potential LSE can be concluded (Kim McEwen, *pers comm*, email received 20 July 2022). Therefore, there is no potential for LSE.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Skerries and Causeway SAC	Harbour porpoise	Pre-construction, construction, and decommissioning	Injury and disturbance from underwater noise-generating activities;	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. Harbour porpoise are wide ranging and forage over very large areas The ZOI for underwater noise to harbour porpoise is 26km, therefore underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of this SAC. Therefore, underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of this SAC. Therefore, there is no potential for LSE.
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to the harbour porpoise feature of this SAC. Therefore, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise that use this SAC. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of harbour porpoise using this SAC at such a distance. Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder harbour porpoise using this SAC at such a distance. Therefore, there is no potential for LSE.
			Accidental release of pollutants	No potential LSE concluded	
		Operation and maintenance	Underwater noise from fixed turbines (fixed WTG)	No potential LSE concluded	Operational noise associated with fixed turbines has been screened out for Annex II marine mammal species, following scoping advice from NS (26 May 2022) and MS-LOT (29 June 2022). Noise levels generated by operational wind turbines are generally not considered significant, with behavioural responses only likely in close proximity to the wind turbines (MMO, 2014). The floating structure of floating wind turbines may act as a resonating chamber; increasing sound levels compared with fixed structures. However, given the distance of the SAC from the offshore Project (453.3 km), there is unlikely to be LSE to harbour porpoise using this SAC.
			Underwater noise from floating turbines (floating WTG)	No potential LSE concluded	
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to harbour porpoise using any transboundary European site. Therefore, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Displacement or barrier effects associated with physical presence of devices and infrastructure	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), there will be no significant displacement of harbour porpoise using this SAC, and there will be no barrier effect to harbour porpoise transiting from/to this SAC. Therefore, there is no potential for LSE.
			Entanglement with moorings (floating WTG)	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), there is unlikely to be significant risk of entanglement to harbour porpoise using this SAC. Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder harbour porpoise features of this SAC at such a distance. Therefore, there is no potential for LSE.
			Risk associated with electromagnetic fields (EMFs) associated with subsea and midwater cabling	No potential LSE concluded	
			Accidental release of pollutants	No potential LSE concluded	
			Habitat change including foraging opportunities	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (453.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of harbour porpoise from this SAC at such a distance. Therefore, there is no potential for LSE.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	
Southern North Sea SAC	Harbour porpoise	Pre-construction, construction, and decommissioning	Injury and disturbance from underwater noise-generating activities;	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. The ZOI for underwater noise to harbour porpoise 26km, therefore underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of this SAC. Therefore, underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of this SAC. Therefore, there is no potential for LSE.
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), and that the local increase in vessel traffic from the offshore Project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to harbour porpoise feature of this SAC. Therefore, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of harbour porpoise that use this SAC at such a distance. Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Accidental release of pollutants	No potential LSE concluded	
		Operation and maintenance	Underwater noise from fixed turbines (fixed WTG)	No potential LSE concluded	Operational noise associated with fixed turbines has been screened out for Annex II marine mammal species, following scoping advice from NS (26 May 2022) and MS-LOT (29 June 2022). Noise levels generated by operational wind turbines are generally not considered significant, with behavioural responses only likely in close proximity to the wind turbines (MMO, 2014). The floating structure of floating wind turbines may act as a resonating chamber; increasing sound levels compared with fixed structures. However, given the distance of the SAC from the offshore Project (491.3 km), there is unlikely to be LSE to the harbour porpoise feature of this SAC.
			Underwater noise from floating turbines (floating WTG)	No potential LSE concluded	
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to harbour porpoise that use any transboundary European site. Therefore, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	
			Displacement or barrier effects associated with physical presence of devices and infrastructure	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), there will be no significant displacement of harbour porpoise from this SAC, and there will be no barrier effect to harbour porpoise transiting from/to this SAC. Therefore, there is no potential for LSE.
			Entanglement with moorings (floating WTG)	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), there is unlikely to be significant risk of entanglement to the harbour porpoise feature of this SAC. Therefore, there is no potential for LSE.

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Risk associated with electromagnetic fields (EMFs) associated with subsea and midwater cabling	No potential LSE concluded	
			Accidental release of pollutants	No potential LSE concluded	
			Habitat change including foraging opportunities	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (491.3 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of this SAC to the offshore area (595.5 km), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to the harbour porpoise feature of this SAC. Therefore, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Accidental release of pollutants	No potential LSE concluded	
		Operation and maintenance	Underwater noise from fixed turbines (fixed WTG)	No potential LSE concluded	Operational noise associated with fixed turbines has been screened out for Annex II marine mammal species, following scoping advice from NS (26 May 2022) and MS-LOT (29 June 2022). Noise levels generated by operational wind turbines are generally not considered significant, with behavioural responses only likely in close proximity to the wind turbines (MMO, 2014). The floating structure of floating wind turbines may act as

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					a resonating chamber; increasing sound levels compared with fixed structures. However, given the distance of the SAC from the offshore Project (595.5 km), there is unlikely to be LSE to the harbour porpoise feature of this SAC.
			Underwater noise from floating turbines (floating WTG)	No potential LSE concluded	
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to the harbour porpoise feature of any transboundary European site. Therefore, there is no potential for LSE.
			Vessel collision	No potential LSE concluded	
			Displacement or barrier effects associated with physical presence of devices and infrastructure	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), there will be no significant displacement of harbour porpoise from this SAC, and there will be no barrier effect to harbour porpoise transiting from/to this SAC. Therefore, there is no potential for LSE.
			Entanglement with moorings (floating WTG)	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), there is unlikely to be significant risk of entanglement to the harbour porpoise feature of this SAC. Therefore, there is no potential for LSE.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Risk associated with electromagnetic fields (EMFs) associated with subsea and midwater cabling	No potential LSE concluded	
			Accidental release of pollutants	No potential LSE concluded	
			Habitat change including foraging opportunities	No potential LSE concluded	Given the significant distance of this SAC to the offshore Project (595.5 km), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Transboundary SACs (listed in Table 7-3)	Harbour porpoise	Pre-construction, construction, and decommissioning	Injury and disturbance from underwater noise-generating activities;	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant) the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using these SACs. The ZOI for underwater noise to harbour porpoise 26 km, therefore underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of these SACs. Therefore, underwater noise is unlikely to result in significant injury or disturbance to the harbour porpoise features of these SACs. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), and that the local increase in vessel traffic from the offshore Project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to the harbour porpoise feature of any transboundary European site. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Vessel collision	No potential LSE concluded	
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), the offshore area is unlikely to constitute an important area or foraging ground for harbour porpoise that use these SACs. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of any transboundary SAC at such a distance. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise that use this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE.
			Accidental release of pollutants	No potential LSE concluded	
		Operation and maintenance	Underwater noise from fixed turbines (fixed WTG)	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant) and low noise levels generated during wind turbine operation, there will be no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Underwater noise from floating turbines (floating WTG)	No potential LSE concluded	
			Disturbance due to physical presence and underwater noise from vessels	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), and that the local increase in vessel traffic from the project is likely to be low when compared with existing vessel traffic around the north coast of Scotland, there will be no significant disturbance or increase in collision risk to the harbour porpoise feature of any transboundary European site. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Vessel collision	No potential LSE concluded	

SAC	MARINE MAMMAL QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Displacement or barrier effects associated with physical presence of devices and infrastructure	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), there will be no significant displacement of harbour porpoise from these SACs, and there will be no barrier effect to harbour porpoise transiting from/to these SACs. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Entanglement with moorings (floating WTG)	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), there is unlikely to be significant risk of entanglement to harbour porpoise that use these SACs. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Effects related to decreasing marine water quality including increasing turbidity	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), the offshore Project is unlikely to constitute an important area or foraging ground for harbour porpoise using this SAC. These effects are also expected to be localised and are unlikely to hinder the harbour porpoise feature of this SAC at such a distance. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Risk associated with electromagnetic fields (EMFs) associated with subsea and midwater cabling	No potential LSE concluded	
			Accidental release of pollutants	No potential LSE concluded	
			Habitat change including foraging opportunities	No potential LSE concluded	Given the significant distance of the nearest transboundary SAC (Doggersbank SAC at 551.2 km distant), the offshore area is unlikely to constitute an important area or foraging ground for harbour porpoise that use these SACs. These effects are also expected to be highly localised and are unlikely to hinder the foraging ability of the harbour porpoise feature of any transboundary SAC at such a distance. Therefore, there is no potential for LSE on the harbour porpoise feature of any transboundary SAC.
			Indirect effects related to changes in availability or distribution of prey species	No potential LSE concluded	

8 EUROPEAN SITES DESIGNATED FOR ORNITHOLOGICAL FEATURES

8.1 Initial screening criteria

This section outlines the results of the stepwise process to identify European sites with relevant offshore ornithological features (SPAs and Ramsar sites) to be taken forward to the assessment and determination of no potential LSE. The initial screening criteria utilised to identify European sites with relevant offshore ornithology features are outlined below:

- European sites designated for bird features that overlaps with the offshore Project: Including physical overlap between offshore Project boundary and SPA / Ramsar site;
- European sites with breeding seabird qualifying features with a mean of the maximum foraging range (km) + one standard deviation of the mean (1SD hereafter) overlaps with the offshore Project, as requested by NS (12 July 2022). Foraging range data is from Woodward *et al*. (2019);
- European sites with qualifying bird features whose migratory range overlaps with the offshore Project based on data presented in the strategic assessment of collision risk of Scottish offshore wind farms to migrating birds (Wildfowl & Wetlands Trust and MacArthur Green, 2014); and
- European sites and / or a qualifying feature located within the potential extent of effects associated with the offshore Project: An indirect effect acting through prey or access to habitat.

8.2 Identification of sites and features with connectivity

8.2.1 Ornithology features with potential connectivity

The bird species likely to occur in the offshore Project can be grouped into a series of categories for the purposes of this high-level screening process. This categorisation is based on biological relationships related to breeding biology, feeding, habitat use and migratory pathways. The categories are:

- Breeding seabirds;
- Non-breeding seabirds;
- Migratory seabirds; and
- Migratory terrestrial birds (which includes water birds).

8.2.1.1 Breeding seabird features

During the breeding season foraging birds may travel some distance from their breeding colonies. The information available on the distances that breeding birds will forage depends on the species. Woodward *et al.* (2019) provided the most recent data on recorded foraging ranges for a wide range of species, including the mean of the maximum distances travelled across suitable studies.

Following the scoping advice received from NS (12 July 2022) the mean-maximum foraging range (i.e. the mean of the maximum foraging trips recorded across the studies selected for inclusion in the analysis) + 1SD has been used

as a criterion for establishing whether there is likely to be connectivity (and hence risk of being unable to conclude no potential LSE between an SPA breeding colony and the offshore Project).

8.2.1.2 Non-breeding seabird features

Some bird species are highly mobile and may interact with projects because they range over considerable distances. This applies to breeding seabirds in the non-breeding season as well as migratory seabirds and waterbirds.

Seabird species in general disperse widely during non-breeding seasons, so that effects to some degree may be felt on the SPA populations during these seasons. The species are not constrained by extents of central-place foraging and for that reason no potential LSE on all species that are SPA qualifying or named assemblage features cannot be concluded. It is however expected that densities of species will be lower in the non-breeding seasons or lower apportioning values to the relevant SPA will be appropriate (compared to the breeding season).

8.2.1.3 Migratory seabirds

Seabirds that breed in sites designated as SPAs in areas of the UK that are distant from the offshore Project have some potential to interact with the offshore Project during bi-annual migratory movements. At the time of writing this Offshore HRA Screening Report, not enough information is known around the presence of migratory seabirds at the offshore Project, and therefore, a conclusion of no potential LSE cannot be made. In order to determine whether there is a potential effect on migratory seabirds, the RIAA will provide further assessment. The process involves calculating the proportion of each species' migratory front represented at the offshore Project, which is then incorporated into, for example, collision risk modelling.

8.2.1.4 Migratory terrestrial birds

The movement of migratory waders, wildfowl, raptors and passerines is characterised by long distance flights, which occur as a series of flights between discrete staging areas. The majority of these movements occur across broad fronts at high altitudes when flying long distances, but when birds such as waders and wildfowl encounter unfavourable weather, are in sight of land or are flying relatively short distances, it is likely that they will they descend to lower heights following landscape features such as coastlines until they reach suitable staging areas.

Following the scoping advice received from NS (12 July 2022) the report published by Marine Scotland Science on the Strategic assessment of collision risk of Scottish offshore wind farms to migrating birds (Wildfowl & Wetlands Trust and MacArthur Green, 2014) has been used here to establish whether there is likely to be connectivity for migratory birds between SPAs and Ramsar sites and the offshore Project.

8.2.2 Initial screening results

Based on the criteria outlined in section 8.1, the SPAs and Ramsar sites for which potential connectivity with the offshore Project cannot be ruled out are listed in Table 8-1. Those sites for which there is connectivity will be taken forward for determination of no potential LSE. This has taken into account feedback from the Scottish Ministers Scoping Opinion and further consultation meetings with other statutory consultees, which recommended that

consideration would need to be given to mobile ornithological receptors from SPAs and Ramsar sites whose presence within the offshore Project's ZOI may be anticipated.

Table 8-1 Summary of European sites designated for ornithological features taken forward for determination of no potential LSE

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
North Caithness Cliffs	SPA	Breeding: Northern fulmar*, Peregrine falcon, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin*	27.2	1.7	1
Caithness and Sutherland Peatlands	SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Eurasian wigeon, Common scoter, Hen harrier, Golden eagle, Merlin, European golden plover, Common greenshank, Wood sandpiper, Short-eared owl, Dunlin	22.9	6.9	2
Caithness Lochs	SPA and Ramsar	Wintering: Whooper swan, Greylag goose, Greenland white-fronted goose	40.1	7.3	3
Hoy	SPA	Breeding: Red-throated diver, Northern fulmar*, Peregrine falcon, Arctic skua*, Great skua*, Great black-backed gull*, Black-legged kittiwake*, Common guillemot*, Atlantic puffin*	24.7	21.8	4
North Sutherland Coastal Islands	SPA	Wintering: Barnacle goose	24.5	27.6	5
Sule Skerry and Sule Stack	SPA	Breeding: European storm-petrel*, Leach's storm-petrel*, Northern gannet*, European shag*, Common guillemot*, Atlantic puffin*	1.7	29.2	6
Pentland Firth Islands	SPA	Breeding: Arctic tern	50.9	36.5	7
Switha	SPA	Wintering: Barnacle goose	46.8	36.7	8
Marwick Head	SPA	Breeding: Black-legged kittiwake*, Common guillemot*	35.0	38.6	9
Orkney Mainland Moors	SPA	Breeding: Red-throated diver, Hen harrier, Short-eared owl Wintering: Hen harrier	40.9	40.0	10
East Caithness Cliffs	SPA	Breeding: Northern fulmar*, Great cormorant*, European shag*, Peregrine falcon, Herring gull*, Great black-backed gull*, Black-legged kittiwake*, Common guillemot*, Razorbill*	70.1	40.0	11
Cape Wrath	SPA	Breeding: Northern fulmar*, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin*	25.9	41.8	12
Moray Firth	SPA	Breeding: European shag Wintering: Red-throated diver, Great northern diver, Slavonian grebe, European shag, Greater scaup, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser	79.2	48.8	13
Rousay	SPA	Breeding: Northern fulmar*, Arctic skua*, Black-legged kittiwake*, Arctic tern*, Common guillemot*	49.3	52.9	14

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Lairg and Strath Brora Lochs	SPA	Breeding: Black-throated diver	75.7	59.2	15
Copinsay	SPA	Breeding: Northern fulmar*, Great black-backed gull*, Black-legged kittiwake*, Common guillemot*	67.2	59.7	16
West Westray	SPA	Breeding: Northern fulmar*, Arctic skua*, Black-legged kittiwake*, Arctic tern*, Common guillemot*, Razorbill*	60.2	64.6	17
Strath Carnaig and Strath Fleet Moors	SPA	Breeding: Hen harrier	80.9	67.3	18
Handa	SPA	Breeding: Northern fulmar*, Arctic skua, Great skua*, Black-legged kittiwake*, Common guillemot*, Razorbill*	56.1	71.3	19
Dornoch Firth and Loch Fleet	SPA and Ramsar	Breeding: Osprey Wintering: Greylag goose*, Eurasian wigeon*, Eurasian teal*, Greater scaup*, Eurasian oystercatcher*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Dunlin*	90.0	72.4	20
Auskerry	SPA	Breeding: European storm-petrel, Arctic tern	77.6	75.1	21
Calf of Eday	SPA	Breeding: Northern fulmar*, Great cormorant*, Great black-backed gull*, Black-legged kittiwake*, Common guillemot*	72.3	75.7	22
Papa Westray (North Hill and Holm)	SPA	Breeding: Arctic skua, Arctic tern	74.0	78.6	24
East Sanday Coast	SPA and Ramsar	Wintering: Purple sandpiper, Bar-tailed godwit, Ruddy turnstone	81.5	84.3	25
Assynt Lochs	SPA	Breeding: Black-throated diver	73.5	84.7	26
Inverpolly, Loch Urigill and nearby Lochs	SPA	Breeding: Black-throated diver	81.1	88.4	27
Loch Eye	SPA and Ramsar	Wintering: Whooper swan, Greylag goose	110.7	89.5	28
Cromarty Firth	SPA and Ramsar	Breeding: Osprey, Common tern Wintering: Whooper swan*, Greylag goose*, Eurasian wigeon*, Northern pintail*, Greater scaup*, Red-breasted merganser*, Eurasian oystercatcher*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Red knot*, Dunlin*	116.1	95.7	29
North Rona and Sula Sgeir	SPA	Breeding: Northern fulmar*, European storm-petrel*, Leach's storm-petrel*, Northern gannet*, Great black-backed gull*, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin*	79.7	98.4	30

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Moray and Nairn Coast	SPA and Ramsar	Breeding: Osprey Wintering: Pink-footed goose*, Greylag goose*, Eurasian wigeon*, Red-breasted merganser*, Eurasian oystercatcher*, Bar-tailed godwit*, Common redshank*, Dunlin*	128.6	103.3	31
Loch Spynie	SPA and Ramsar	Wintering: Greylag goose	133.4	104.1	32
Beinn Dearg	SPA	Breeding: Eurasian dotterel	105.5	106.2	33
Ben Wyvis	SPA	Breeding: Eurasian dotterel	118.8	108.4	34
Inner Moray Firth	SPA and Ramsar	Breeding: Osprey, Common tern Wintering: Great cormorant*, Greylag goose*, Eurasian wigeon*, Eurasian teal*, Greater scaup*, Common goldeneye*, Red-breasted merganser*, Goosander*, Eurasian oystercatcher*, Black-tailed godwit, Eurasian curlew*, Common redshank*	131.8	111.4	35
Loch Flemington	SPA	Breeding: Slavonian grebe	138.5	117.6	36
Priest Island (Summer Isles)	SPA	Breeding: European storm-petrel	108.2	120.9	37
Lewis Peatlands	SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Golden eagle, Merlin, European golden plover, Common greenshank, Dunlin	104.6	123.1	38
Ness and Barvas, Lewis	SPA	Breeding: Corncrake	105.6	124.5	39
Troup, Pennan and Lion's Heads	SPA	Breeding: Northern fulmar*, Herring gull*, Black-legged kittiwake*, Common guillemot*, Razorbill*	160.1	127.3	40
Achanalt Marshes	SPA	Breeding: Wood sandpiper	132.6	129.1	41
Wester Ross Lochs	SPA	Breeding: Black-throated diver	119.2	130.4	42
Tips of Corsemaul and Tom Mor	SPA	Breeding: Common gull	164.4	134.3	43
Seas off Foula	SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Common guillemot, Atlantic puffin Wintering: Northern fulmar, Great skua, Common guillemot	126.9	136.9	44
Loch Ashie	SPA	Passage: Slavonian grebe	154.8	137.4	45

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Loch Maree	SPA and Ramsar	Breeding: Black-throated diver	131.4	142.4	46
Fair Isle	SPA	Breeding: Northern fulmar*, Northern gannet*, European shag*, Arctic skua*, Great skua*, Black-legged kittiwake*, Arctic tern*, Common guillemot*, Razorbill*, Atlantic puffin*, Fair Isle wren	140.1	143.2	47
North Inverness Lochs	SPA	Breeding: Slavonian grebe	157.7	144.0	48
Loch Ruthven	SPA and Ramsar	Breeding: Slavonian grebe	162.2	144.5	49
Abernethy Forest	SPA	Breeding: Osprey, Scottish crossbill Permanent: Western capercaillie	171.9	148.0	50
Loch of Strathbeg	SPA and Ramsar	Breeding: Sandwich tern Wintering: Whooper swan*, Pink-footed goose*, Greylag goose*, Barnacle goose*, Eurasian teal*, Common goldeneye*	181.9	150.0	51
Loch Vaa	SPA	Breeding: Slavonian grebe	173.5	150.7	52
Cairngorms	SPA	Breeding: Golden eagle, Osprey, Merlin, Peregrine falcon, Eurasian dotterel, Scottish crossbill Permanent: Western capercaillie	178.4	155.4	53
Shiant Isles	SPA	Breeding: Northern fulmar*, European shag*, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin* Wintering: Barnacle goose	141.7	157.4	54
River Spey - Insh Marshes	SPA and Ramsar	Breeding: Eurasian wigeon, Osprey, Spotted crake, Wood sandpiper Wintering: Whooper swan, Hen harrier	184.3	162.5	55
Loch Knockie and Nearby Lochs	SPA	Breeding: Slavonian grebe	176.9	163.1	56
West Inverness-shire Lochs	SPA	Breeding: Black-throated diver, Common scoter	171.4	165.7	57
Buchan Ness to Collieston Coast	SPA	Breeding: Northern fulmar*, European shag*, Herring gull*, Black-legged kittiwake*, Common guillemot*	199.4	167.1	58
Foula	SPA	Breeding: Red-throated diver, Northern fulmar*, Leach's storm-petrel*, European shag*, Arctic skua*, Great skua*, Black-legged kittiwake*, Arctic tern*, Common guillemot*, Razorbill*, Atlantic puffin*	160.9	167.1	59

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Ythan Estuary, Sands of Forvie and Meikle Loch	SPA and Ramsar	Breeding: Sandwich tern, Common tern, Little tern Wintering: Pink-footed goose*, Common eider*, Northern lapwing*, Common redshank*	202.3	169.1	60
Muir of Dinnet	SPA and Ramsar	Wintering: Greylag goose*	202.2	173.1	61
Glen Tanar	SPA	Breeding: Hen harrier, Osprey, Scottish crossbill Wintering: Western capercaillie	207.5	178.3	62
Loch of Skene	SPA and Ramsar	Wintering: Greylag goose, Common goldeneye, Goosander	210.5	178.4	63
Sumburgh Head	SPA	Breeding: Northern fulmar*, Black-legged kittiwake*, Arctic tern*, Common guillemot*	177.2	181.5	64
Creag Meagaidh	SPA	Breeding: Eurasian dotterel	198.4	182.4	65
Lochnagar	SPA	Breeding: Eurasian dotterel	210.0	183.3	66
West Coast of the Outer Hebrides	SPA	Breeding: Red-throated diver Wintering: Black-throated diver, Great northern diver, Slavonian grebe, Common eider, Long-tailed duck, Red-breasted merganser	166.9	183.9	67
Caenlochan	SPA	Breeding: Golden eagle, Eurasian dotterel	210.8	184.9	68
Lochs of Spiggie and Brow	SPA	Wintering: Whooper swan	181.8	186.4	69
Drumochter Hills	SPA	Breeding: Merlin, Eurasian dotterel	206.4	187.4	70
Ben Alder	SPA	Breeding: Eurasian dotterel	213.5	196.8	71
Mousa	SPA	Breeding: European storm-petrel, Arctic tern	193.2	197.8	72
Forest of Clunie	SPA	Breeding: Hen harrier, Osprey, Merlin, Short-eared owl	222.9	198.8	73
Papa Stour	SPA	Breeding: Arctic tern Passage: Ringed plover	195.9	202.0	74
Flannan Isles	SPA	Breeding: Northern fulmar*, Leach's storm-petrel*, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin*	183.9	202.8	75

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Fowlsheugh	SPA	Breeding: Northern fulmar*, Herring gull*, Black-legged kittiwake*, Common guillemot*, Razorbill*	236.8	204.9	76
Rannoch Lochs	SPA	Breeding: Black-throated diver	221.7	207.2	77
East Mainland Coast, Shetland	SPA	Breeding: Red-throated diver Wintering: Great northern diver, Slavonian grebe	204.0	209.2	78
Loch an Duin	Ramsar	Breeding: Common tern	194.255	210.458	79
North Uist Machair and Islands	SPA and Ramsar	Breeding: Corncrake, Eurasian oystercatcher, Ringed plover, Common redshank, Dunlin Wintering: Barnacle goose, Ringed plover, Purple sandpiper, Ruddy turnstone	194.2	211.1	80
Noss	SPA	Breeding: Northern fulmar*, Northern gannet*, Great skua*, Black-legged kittiwake*, Common guillemot*, Atlantic puffin*	206.3	211.1	81
Loch of Lintrathen	SPA and Ramsar	Wintering: Greylag goose	241.1	214.5	82
Seas off St Kilda	SPA	Breeding: Northern fulmar, European storm-petrel, Northern gannet, Common guillemot, Atlantic puffin	197.1	215.7	83
Loch of Kinnordy	SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose	244.3	217.0	84
Loch Shiel	SPA	Breeding: Black-throated diver	220.0	217.1	85
Montrose Basin	SPA and Ramsar	Wintering: Pink-footed goose*, Greylag goose*, Common shelduck*, Eurasian wigeon*, Common eider*, Eurasian oystercatcher*, Common redshank*, Red knot*, Dunlin*	247.1	217.3	86
Rum	SPA	Breeding: Red-throated diver, Manx shearwater*, Golden eagle, Black-legged kittiwake*, Common guillemot*	212.2	220.9	87
Mointeach Scadabhaigh	SPA	Breeding: Red-throated diver, Black-throated diver	205.4	221.6	88
Ronas Hill - North Roe and Tingon	SPA and Ramsar	Breeding: Red-throated diver, Great skua	219.2	225.5	89
Canna and Sanday	SPA	Breeding: European shag*, Herring gull*, Black-legged kittiwake*, Common guillemot*, Atlantic puffin*	221.9	233.4	90
Outer Firth of Forth and St Andrews Bay Complex	SPA	Breeding: Manx shearwater, Northern gannet, European shag, Herring gull, Black-legged kittiwake, Common tern, Arctic tern, Common guillemot, Atlantic puffin	266.0	236.6	91

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
		Wintering: Red-throated diver, Slavonian grebe, European shag, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser, Little gull, Black-headed gull, Common gull, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill			
Aird and Borve, Benbecula	SPA	Breeding: Corncrake	223.8	239.8	92
Otterswick and Graveland	SPA	Breeding: Red-throated diver	234.1	240.0	93
Firth of Tay and Eden Estuary	SPA and Ramsar	Breeding: Eurasian marsh harrier, Little tern Wintering: Great cormorant*, Pink-footed goose*, Greylag goose*, Common shelduck*, Common eider*, Long-tailed duck*, Common scoter*, Velvet scoter*, Common goldeneye*, Red-breasted merganser*, Goosander*, Eurasian oystercatcher*, Grey plover*, Sanderling*, Bar-tailed godwit*, Common redshank*, Black-tailed godwit*, Dunlin*	267.8	241.1	94
South Uist Machair and Lochs	SPA and Ramsar	Breeding: Corncrake, Eurasian oystercatcher, Ringed plover, Common redshank, Little tern, Dunlin Wintering: Ringed plover, Sanderling	229.3	244.9	95
Monach Islands	SPA	Breeding: Little tern Wintering: Barnacle goose	228.4	244.9	96
Ramna Stacks and Gruney	SPA	Breeding: Leach's storm-petrel	238.8	245.1	97
Fetlar	SPA	Breeding: Northern fulmar*, Whimbrel, Red-necked phalarope*, Arctic skua*, Great skua*, Arctic tern*, Dunlin	241.6	247.4	98
South Tayside Goose Roosts	SPA and Ramsar	Breeding: Eurasian wigeon Wintering: Pink-footed goose*, Greylag goose*	271.8	248.0	99
Bluemull and Colgrave Sounds	SPA	Breeding: Red-throated diver	242.9	248.9	100
Coll and Tiree	SPA	Wintering: Great northern diver, Common eider	253.0	260.3	101
Cameron Reservoir	SPA and Ramsar	Wintering: Pink-footed goose	288.6	261.2	102
Glas Eileanan	SPA	Breeding: Common tern	264.7	262.0	103
Hermaness, Saxa Vord and Valla Field	SPA	Breeding: Red-throated diver, Northern fulmar*, Northern gannet*, European shag*, Great skua*, Black-legged kittiwake*, Common guillemot*, Atlantic puffin*	257.7	263.7	104

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Kilpheder and Smerclate, South Uist	SPA	Breeding: Corncrake	249.5	264.3	105
Loch Leven	SPA and Ramsar	Wintering: Great cormorant, Whooper swan*, Pink-footed goose*, Gadwall, Eurasian teal, Northern shoveler*, Common pochard, Tufted duck, Common goldeneye	289.3	264.8	106
Firth of Forth	SPA and Ramsar	Wintering: Red-throated diver*, Great crested grebe*, Slavonian grebe*, Great cormorant*, Pink-footed goose*, Common shelduck*, Eurasian wigeon*, Mallard*, Greater scaup*, Common eider*, Long-tailed duck*, Common scoter*, Velvet scoter*, Common goldeneye*, Red-breasted merganser*, Eurasian oystercatcher*, Ringed plover*, European golden plover*, Grey plover*, Northern lapwing*, Red knot*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Ruddy turnstone*, Dunlin* Passage: Sandwich tern	295.1	266.6	107
Coll	SPA and Ramsar	Wintering: Barnacle goose, Greenland white-fronted goose	261.4	268.2	108
St Kilda	SPA	Breeding: Northern fulmar*, Manx shearwater*, European storm-petrel*, Leach's storm-petrel*, Northern gannet*, Great skua*, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin*	249.8	268.3	109
Forth Islands	SPA	Breeding: Northern gannet*, Great cormorant*, European shag*, Lesser black-backed gull*, Herring gull*, Black-legged kittiwake*, Sandwich tern*, Roseate tern*, Common tern*, Arctic tern*, Common guillemot*, Razorbill*, Atlantic puffin*	301.9	273.5	110
Eoligarry, Barra	SPA	Breeding: Corncrake	259.4	274.0	111
Coll (corncrake)	SPA	Breeding: Corncrake	271.9	279.3	112
Treshnish Isles	SPA	Breeding: European storm-petrel Wintering: Barnacle goose	275.6	280.0	113
Loch Lomond	SPA and Ramsar	Wintering: Greenland white-fronted goose Permanent: Western capercaillie	299.4	283.2	114
Sléibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast)	SPA and Ramsar	Breeding: Eurasian oystercatcher, Ringed plover, Ringed plover, Common redshank, Dunlin Wintering: Barnacle goose, Ruddy turnstone, Greenland white-fronted goose	281.9	290.0	115
Slamannan Plateau	SPA	Wintering: Taiga bean goose	313.5	291.8	116
Imperial Dock Lock, Leith	SPA	Breeding: Common tern	317.8	292.4	117

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Inner Clyde Estuary	SPA and Ramsar	Wintering: Common redshank	310.8	295.4	118
Mingulay and Berneray	SPA	Breeding: Northern fulmar*, European shag*, Black-legged kittiwake*, Common guillemot*, Razorbill*, Atlantic puffin*	282.5	296.6	119
Tiree (corncrake)	SPA	Breeding: Corncrake	293.3	302.0	120
Black Cart	SPA	Wintering: Whooper swan	322.9	304.7	121
Knapdale Lochs	SPA	Breeding: Black-throated diver	312.5	304.9	122
Renfrewshire Heights	SPA	Breeding: Hen harrier	320.5	305.8	123
St Abb's Head to Fast Castle	SPA	Breeding: European shag*, Herring gull*, Black-legged kittiwake*, Common guillemot*, Razorbill*	337.6	308.5	124
North Colonsay and Western Cliffs	SPA	Breeding: Red-billed chough, Black-legged kittiwake*, Common guillemot* Wintering: Red-billed chough	309.7	308.8	125
Fala Flow	SPA and Ramsar	Wintering: Pink-footed goose	338.1	311.8	126
Gladhouse Reservoir	SPA and Ramsar	Wintering: Pink-footed goose	340.9	315.4	127
Westwater	SPA and Ramsar	Wintering: Pink-footed goose*	339.8	315.8	128
Oronsay and South Colonsay	SPA	Breeding: Red-billed chough, Corncrake Wintering: Red-billed chough	320.1	319.0	129
Sound of Gigha	SPA	Wintering: Great northern diver, Slavonian grebe, Common eider, Red-breasted merganser	328.3	321.2	130
Greenlaw Moor	SPA and Ramsar	Wintering: Pink-footed goose	354.6	326.7	131
Northumbria Coast	SPA and Ramsar	Breeding: Arctic tern, Little tern Wintering: Purple sandpiper, Ruddy turnstone	362.7	333.1	132
Muirkirk and North Lowther Uplands	SPA	Breeding: Hen harrier, Merlin, Peregrine falcon, European golden plover, Short-eared owl Wintering: Hen harrier	354.3	333.2	133

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Northumberland Marine	SPA	Breeding: Sandwich tern, Roseate tern, Common tern, Arctic tern, Little tern, Common guillemot, Atlantic puffin, Great cormorant, European shag, Black-headed gull, Black-legged kittiwake	363.2	333.6	134
Arran Moors	SPA	Breeding: Hen harrier	346.5	334.9	135
Lindisfarne	SPA and Ramsar	Breeding: Roseate tern, Little tern Wintering: Whooper swan, Greylag goose, Common shelduck, Eurasian wigeon, Common eider, Long-tailed duck, Common scoter, Red-breasted merganser, Ringed plover, European golden plover, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, Dunlin, Light-bellied brent goose	365.3	335.7	136
Gruinart Flats, Islay	SPA and Ramsar	Breeding: Red-billed chough Wintering: Barnacle goose, Red-billed chough, Greenland white-fronted goose Passage: Light-bellied brent goose	338.8	337.9	137
Kintyre Goose Roosts	SPA and Ramsar	Wintering: Greenland white-fronted goose	348.4	339.9	138
Rinns of Islay	SPA and Ramsar	Breeding: Common scoter, Hen harrier, Corncrake, Red-billed chough Wintering: Red-billed chough, Greenland white-fronted goose Permanent: Whooper swan	342.0	341.2	139
Din Moss - Hoselaw Loch	SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose	374.3	346.0	140
Holburn Lake and Moss	SPA and Ramsar	Wintering: Greylag goose	377.5	348.0	141
Bridgend Flats, Islay	SPA and Ramsar	Wintering: Barnacle goose	350.2	348.0	142
Farne Islands	SPA	Breeding: Sandwich tern*, Roseate tern*, Common tern*, Arctic tern*, Common guillemot*, Atlantic puffin*, Great cormorant*, European shag*, Black-legged kittiwake*	382.4	351.9	143
Laggan, Islay	SPA	Wintering: Barnacle goose, Greenland white-fronted goose	354.5	352.5	144
Eilean na Muice Duibhe (Duich Moss)	SPA and Ramsar	Wintering: Greenland white-fronted goose	355.1	352.6	145
The Oa	SPA	Breeding: Red-billed chough	363.5	360.7	146

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Langholm - Newcastleton Hills	SPA	Breeding: Hen harrier	400.0	374.3	147
Ailsa Craig	SPA	Breeding: Northern gannet*, Lesser black-backed gull*, Herring gull*, Black-legged kittiwake*, Common guillemot*	391.9	378.3	148
Coquet Island	SPA	Breeding: Sandwich tern*, Roseate tern*, Common tern*, Arctic tern*, Atlantic puffin*, Black-headed gull*	415.8	385.7	149
Castle Loch, Lochmaben	SPA and Ramsar	Wintering: Pink-footed goose	409.9	386.4	150
Loch Ken and River Dee Marshes	SPA and Ramsar	Wintering: Greylag goose, Greenland white-fronted goose	412.4	391.9	151
Rathlin Island	SPA	Breeding: Peregrine falcon*, Black-legged kittiwake*, Common guillemot*, Razorbill*	398.6	393.4	152
Glen App and Galloway Moors	SPA	Breeding: Hen harrier	411.6	396.5	153
Solway Firth	SPA and Ramsar	Wintering: Red-throated diver*, Great cormorant*, Whooper swan*, Pink-footed goose*, Barnacle goose*, Common shelduck*, Eurasian teal*, Northern pintail*, Northern shoveler*, Greater scaup*, Common scoter*, Common goldeneye*, Goosander*, Eurasian oystercatcher*, Ringed plover*, European golden plover*, Grey plover*, Northern lapwing*, Red knot*, Sanderling*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Ruddy turnstone*, Black-headed gull*, Common gull*, Herring gull*, Dunlin*	419.5	396.7	154
Sheep Island	SPA	Breeding: Great cormorant	409.1	405.1	155
Antrim Hills	SPA	Breeding: Hen harrier, Merlin	412.0	405.7	156
North Pennine Moors	SPA	Breeding: Hen harrier, Merlin, Peregrine falcon, European golden plover	438.9	412.1	157
Loch of Inch and Torrs Warren	SPA and Ramsar	Wintering: Hen harrier, Greenland white-fronted goose	431.8	416.6	158
Garron Plateau	Ramsar	Breeding: Golden plover	426.3	419.2	159
Lough Foyle	SPA and Ramsar	Wintering: Whooper swan*, Bar-tailed godwit*, Light-bellied brent goose*, Red-throated diver*, Great crested grebe*, Bewick's swan*, Greylag goose*, Shelduck*, Eurasian teal*, Mallard*, Eurasian wigeon*, Common eider*, Red-breasted merganser*, Oystercatcher*, European golden plover*, Grey plover*, Northern lapwing*, Red knot*, Dunlin*, Eurasian curlew*, Common redshank*, Common greenshank*, Slavonian grebe*	426.7	426.7	160
Larne Lough	SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Roseate tern, Common tern Wintering: Light-bellied brent goose	445.4	436.2	161

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Copeland Islands	SPA	Breeding: Manx shearwater, Arctic tern	458.8	447.1	162
Belfast Lough	SPA and Ramsar	Breeding: Common tern, Arctic tern Wintering: Bar-tailed godwit, Common redshank, Black-tailed godwit	458.6	448.6	163
Belfast Lough Open Water	SPA	Wintering: Great crested grebe	458.7	448.8	164
Outer Ards	SPA and Ramsar	Breeding: Arctic tern Wintering: Ringed plover, European golden plover, Ruddy turnstone, Light-bellied brent goose	460.7	449.5	165
Teesmouth and Cleveland Coast	SPA and Ramsar	Breeding: Pied avocet, Common tern, Little tern Wintering: Red knot, Ruff, Common redshank, Sandwich tern, Gadwall*, Northern shoveler*, Sanderling*, Eurasian wigeon*, Northern lapwing*, Herring gull*, Black-headed gull*	482.1	452.1	166
Lough Neagh and Lough Beg	SPA and Ramsar	Breeding: Common tern Wintering: Bewick's swan, Whooper swan, Common pochard, Tufted duck, Common goldeneye, Little grebe*, Great crested grebe*, Great cormorant*, Greylag goose*, Shelduck*, Eurasian wigeon*, Gadwall*, Eurasian teal*, Mallard*, Northern shoveler*, Greater Scaup*, Common coot*	457.3	452.3	167
Strangford Lough	SPA and Ramsar	Breeding: Sandwich tern*, Common tern*, Arctic tern* Wintering: Red knot*, Common redshank*, Light-bellied brent goose*, Bar-tailed godwit*, Black-tailed godwit*, Common coot*, Eurasian curlew*, Dunlin*, Common eider*, Gadwall*, Great crested grebe*, Greylag goose*, Common greenshank*, Common goldeneye*, European golden plover*, Grey plover*, Northern lapwing*, Mallard*, Oystercatcher*, Northern pintail*, Red-breasted merganser*, Common ringed plover*, Shelduck*, Northern shoveler*, Eurasian teal*, Ruddy turnstone*, Eurasian wigeon*	473.1	462.2	168
Morecambe Bay and Duddon Estuary	SPA and Ramsar	Breeding: Lesser black-backed gull*, Herring gull*, Sandwich tern*, Common tern*, Little tern* Wintering: Little egret*, Whooper swan*, European golden plover*, Ruff*, Bar-tailed godwit*, Mediterranean gull*, Great egret*, Eurasian spoonbill*, Brent goose*, Eurasian wigeon*, Eurasian teal*, Teal*, Mallard*, Ring-necked duck*, Common eider*, Common goldeneye*, Red-breasted merganser*, Great cormorant*, Northern lapwing*, Little stint*, Spotted redshank*, Common greenshank*, Black-headed gull*, Common gull*, Herring gull* Passage: Pink-footed goose*, Common shelduck*, Northern pintail*, Eurasian oystercatcher*, Ringed plover*, Grey plover*, Red knot*, Sanderling*, Eurasian curlew*, Common redshank*, Ruddy turnstone*, Lesser black-backed gull*, Black-tailed godwit*, Dunlin*	492.8	469.7	169
North York Moors	SPA	Breeding: Merlin, European golden plover	512.5	482.5	170
Leighton Moss	SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier	520.2	495.1	171

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Killough Bay	SPA and Ramsar	Wintering: Light-bellied brent goose	508.0	496.1	172
Bowland Fells	SPA	Breeding: Hen harrier, Merlin, Lesser black-backed gull	535.3	509.9	173
Liverpool Bay / Bae Lerpwl	SPA	Breeding: Little gull, Common tern, Little tern Wintering: Red-throated diver*, Common scoter*, Little gull*, Red-breasted merganser*, Great cormorant*, Black-headed gull*, Common gull*, Common eider*, Northern Fulmar*, Great black-backed gull*, Great crested grebe*, Common guillemot*, Northern gannet*, Atlantic puffin*, Herring gull*, Black-legged kittiwake*, Lesser black-backed gull*, Black-throated diver*, European shag*, Razorbill*, Velvet scoter*	533.7	511.3	174
Slieve Beagh - Mullaghfad - Lisnaskea	SPA	Breeding: Hen harrier	516.8	514.3	175
Pettigoe Plateau	SPA and Ramsar	Breeding: European golden plover	517.2	520.0	176
Carlingford Lough	SPA and Ramsar	Breeding: Sandwich tern, Common tern Wintering: Light-bellied brent goose	534.3	525.1	177
Flamborough and Filey Coast	SPA	Breeding: Northern gannet, Black-legged kittiwake, Common guillemot, Razorbill, Northern Fulmar*	556.7	525.6	178
South Pennine Moors Phase 2	SPA	Breeding: Merlin*, European golden plover*, Short-eared owl*	559.1	531.7	179
Upper Lough Erne	SPA and Ramsar	Wintering: Whooper swan	534.7	534.2	180
Ribble and Alt Estuaries	SPA and Ramsar	Breeding: Ruff, Black-headed gull*, Lesser black-backed gull*, Common tern*, Wintering: Great cormorant*, Bewick's swan*, Whooper swan*, Pink-footed goose*, Common shelduck*, Eurasian wigeon*, Eurasian teal*, Northern pintail*, Greater scaup*, Common scoter*, Eurasian oystercatcher*, European golden plover*, Grey plover*, Northern lapwing*, Red knot*, Sanderling*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Black-tailed godwit*, Dunlin* Passage: Ringed plover*, Sanderling*, Whimbrel*, Common redshank*	561.8	537.7	181
Irish Sea Front	SPA	Breeding: Manx shearwater	558.6	542.5	182
Lower Derwent Valley	SPA and Ramsar	Breeding: Northern shoveler Wintering: Bewick's swan*, Eurasian wigeon*, Eurasian teal*, European golden plover*, Ruff*	575.2	545.6	183
Greater Wash	SPA	Breeding: Sandwich tern, Common tern, Little tern	584.6	553.7	184

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
		Wintering: Red-throated diver, Common scoter, Little gull			
Martin Mere	SPA and Ramsar	Wintering: Bewick's swan, Whooper swan, Pink-footed goose, Eurasian wigeon, Northern pintail	579.3	554.8	185
Anglesey Terns / Morwenoliaid Ynys Môn	SPA	Breeding: Sandwich tern, Roseate tern, Common tern, Arctic tern	583.1	563.9	186
Hornsea Mere	SPA	Breeding: Mute swan Wintering: Gadwall	596.1	565.2	187
Peak District Moors (South Pennine Moors Phase 1)	SPA	Breeding: Merlin, European golden plover, Short-eared owl	594.5	567.5	188
Humber Estuary	SPA and Ramsar	Breeding: Great bittern*, Eurasian marsh harrier, Pied avocet*, Little tern. Wintering: Great bittern*, Common shelduck*, Eurasian wigeon*, Eurasian teal*, Mallard*, Common pochard*, Greater scaup*, Common goldeneye*, Hen harrier, Eurasian oystercatcher*, Pied avocet, Ringed plover*, European golden plover*, Grey plover*, Northern lapwing*, Red knot*, Red knot*, Sanderling*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Common greenshank*, Ruddy turnstone*, Black-tailed godwit*, Dunlin*, Dark-bellied brent goose* Passage: Ringed plover*, Grey plover*, Sanderling*, Ruff*, Whimbrel*, Common redshank*, Black-tailed godwit*, Dunlin*	598.7	569.3	189
Mersey Narrows and North Wirral Foreshore	SPA and Ramsar	Breeding: Common tern Wintering: Great cormorant*, Eurasian oystercatcher*, Grey plover*, Sanderling*, Bar-tailed godwit*, Common redshank*, Little gull, Common tern, Red knot*, Dunlin*	596.1	572.0	190
Thorne and Hatfield Moors	SPA	Breeding: European nightjar	605.0	575.7	191
The Dee Estuary	SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Common shelduck*, Eurasian teal, Northern pintail*, Eurasian oystercatcher*, Grey plover, Red knot*, Bar-tailed godwit*, Eurasian curlew, Common redshank*, Black-tailed godwit, Dunlin Passage: Common redshank*, Sandwich tern	603.3	579.8	192
Mersey Estuary	SPA and Ramsar	Wintering: Great crested grebe, Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, European golden plover, Grey plover, Northern lapwing, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover, Common redshank	606.6	582.5	193
Ynys Seiriol / Puffin Island	SPA	Breeding: Great cormorant	608.1	587.0	194

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Rostherne Mere	Ramsar	Wintering: Northern shoveler, Pochard	614.0	588.4	195
Traeth Lafan/ Lavan Sands, Conway Bay	SPA	Wintering: Red-breasted merganser, Eurasian oystercatcher, Eurasian curlew, Common redshank Passage: Great crested grebe	612.6	591.6	196
Midland Meres and Mosses Phase 2	Ramsar	Passage: Northern shoveler Wintering: Cormorant, great bittern, water rail	625.0	600.1	197
Migneint-Arenig-Dduallt	SPA	Breeding: Hen harrier, Merlin, Peregrine falcon	639.5	617.7	198
Berwyn	SPA	Breeding: Red kite, Hen harrier, Merlin, Peregrine falcon	648.5	625.6	199
Northern Cardigan Bay / Gogledd Bae Ceredigion	SPA	Wintering: Red-throated diver	652.9	632.4	200
Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island	SPA	Breeding: Red-billed chough Wintering: Manx shearwater, Red-billed chough	660.3	642.2	201
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal	SPA	Breeding: Red-billed chough Wintering: Red-billed chough	664.6	645.4	202
Gibraltar Point	SPA and Ramsar	Breeding: Little tern Wintering: Grey plover, Sanderling, Bar-tailed godwit	690.6	659.8	203
The Wash	SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Bewick's swan*, Pink-footed goose*, Common shelduck*, Eurasian wigeon*, Gadwall*, Northern pintail*, Common scoter*, Common goldeneye*, Eurasian oystercatcher*, Grey plover*, Red knot*, Sanderling*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Ruddy turnstone*, Black-tailed godwit*, Dunlin*, Dark-bellied brent goose*	692.7	661.9	204
Dyfi Estuary / Aber Dyfi	SPA	Wintering: Greenland white-fronted goose	691.5	670.2	205
Cors Fochno and Dyfi	Ramsar	Passage: Common greenshank	692.6	671.2	206
North Norfolk Coast	SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier, Pied avocet*, Sandwich tern, Common tern, Little tern Wintering: Pink-footed goose*, Eurasian wigeon*, Pied avocet*, Red knot*, Dark-bellied brent goose*	710.5	679.5	207

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Rutland Water	SPA and Ramsar	Wintering: Great crested grebe*, Mute swan, Eurasian wigeon*, Gadwall*, Eurasian teal*, Northern shoveler*, Tufted duck*, Common goldeneye*, Goosander*, Common coot*	714.7	685.9	208
Elenydd - Mallaen	SPA	Breeding: Red kite, Merlin	708.6	686.8	209
Cors Caron	Ramsar	Wintering: Whooper swan	723.3	701.9	210
Nene Washes	SPA and Ramsar	Breeding: Garganey, Northern shoveler, Black-tailed godwit Wintering: Bewick's swan, Eurasian wigeon, Gadwall, Gadwall, Eurasian teal, Northern pintail, Northern shoveler	735.4	705.9	211
Breckland	SPA	Breeding: Stone-curlew, European nightjar, Wood lark	745.6	714.7	212
Upper Nene Valley Gravel Pits	SPA and Ramsar	Wintering: Great crested grebe*, Great cormorant*, Great bittern*, Eurasian wigeon*, Gadwall*, Mallard*, Northern shoveler*, Common pochard*, Tufted duck*, Common coot*, European golden plover*, Northern lapwing*	744.9	716.0	213
Ouse Washes	SPA and Ramsar	Breeding: Gadwall*, Mallard, Northern shoveler*, Black-tailed godwit Wintering: Great cormorant*, Mute swan, Bewick's swan*, Whooper swan*, Eurasian wigeon*, Gadwall*, Eurasian teal*, Northern pintail*, Garganey, Northern shoveler*, Common pochard*, Tufted duck*, Hen harrier, Common coot*, Ruff*	748.0	717.6	214
Broadland	SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier Wintering: Bewick's swan, Whooper swan, Eurasian wigeon, Gadwall, Northern shoveler, Hen harrier, Ruff	756.7	724.5	215
Great Yarmouth North Denes	SPA	Breeding: Little tern	763.4	730.9	216
Outer Thames Estuary	SPA	Breeding: Common tern, Little tern Wintering: Red-throated diver	776.9	744.5	217
Breydon Water	SPA and Ramsar	Breeding: Common tern Wintering: Bewick's swan*, Pied avocet*, European golden plover*, Northern lapwing* Passage: Ruff*	778.4	746.2	218
Walmore Common	SPA and Ramsar	Wintering: Bewick's swan	781.7	756.7	219
Severn Estuary	SPA and Ramsar	Wintering: Bewick's swan*, Common shelduck*, Gadwall*, Common redshank*, Greater white-fronted goose, Dunlin*	788.0	763.2	220

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro	SPA	Breeding: Manx shearwater*, European storm-petrel*, Lesser black-backed gull*, Atlantic puffin*, Short-eared owl, Red-billed chough, Razorbill*, Common guillemot*, Black-legged kittiwake*	780.4	764.0	221
Bae Caerfyrddin/ Carmarthen Bay	SPA	Wintering: Common scoter	784.1	764.8	222
Benacre to Easton Bavents	SPA	Breeding: Great bittern, Eurasian marsh harrier, Little tern	801.5	769.3	223
Burry Inlet	SPA and Ramsar	Wintering: Common shelduck*, Eurasian wigeon*, Eurasian teal*, Northern pintail*, Northern shoveler*, Eurasian oystercatcher*, Grey plover*, Red knot*, Eurasian curlew*, Common redshank*, Ruddy turnstone, Dunlin*	790.0	769.4	224
Grassholm	SPA	Breeding: Northern gannet	785.0	769.4	225
Minsmere-Walberswick	SPA and Ramsar	Breeding: Great bittern, Gadwall, Eurasian teal, Northern shoveler, Pied avocet, Little tern, European nightjar, Eurasian marsh harrier. Wintering: Gadwall, Northern shoveler, Hen harrier, Greater white-fronted goose	805.3	773.4	226
Sandlings	SPA	Breeding: European nightjar, Wood lark	818.4	786.6	227
Alde-Ore Estuary	SPA and Ramsar	Breeding: Eurasian marsh harrier, Pied avocet, Lesser black-backed gull, Sandwich tern, Little tern Wintering: Pied avocet, Ruff, Common redshank	819.6	788.0	228
Deben Estuary	SPA and Ramsar	Wintering: Pied avocet, Dark-bellied brent goose	821.4	790.0	229
Lee Valley	SPA and Ramsar	Wintering: Great bittern, Gadwall, Northern shoveler	821.0	791.7	230
Stour and Orwell Estuaries	SPA and Ramsar	Breeding: Pied avocet Wintering: Great crested grebe*, Great cormorant*, Mute swan, Common shelduck*, Eurasian wigeon*, Gadwall*, Northern pintail*, Greater scaup, Common goldeneye*, Ringed plover*, European golden plover, Grey plover*, Northern lapwing*, Red knot*, Eurasian curlew*, Common redshank*, Ruddy turnstone*, Black-tailed godwit*, Dunlin*, Dark-bellied brent goose* Passage: Ringed plover*, Common redshank*	823.6	792.6	231
Abberton Reservoir	SPA and Ramsar	Breeding: Great cormorant Wintering: Great crested grebe*, Mute swan, Eurasian wigeon*, Gadwall*, Eurasian teal*, Northern shoveler*, Common pochard*, Tufted duck*, Common goldeneye*, Common coot*	836.6	806.1	232

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Hamford Water	SPA and Ramsar	Breeding: Little tern Wintering: Common shelduck, Eurasian teal, Pied avocet, Ringed plover, Grey plover, Common redshank, Black-tailed godwit, Dark-bellied brent goose	838.1	807.0	233
Colne Estuary (Mid-Essex Coast Phase 2)	SPA and Ramsar	Breeding: Common pochard, Hen harrier, Ringed plover, Little tern Wintering: Common redshank*, Dark-bellied brent goose*	837.9	807.3	234
Chew Valley Lake	SPA	Wintering: Northern shoveler	833.2	809.0	235
Blackwater Estuary (Mid-Essex Coast Phase 4)	SPA and Ramsar	Breeding: Common pochard, Ringed plover*, Little tern Wintering: Hen harrier, Ringed plover*, Grey plover*, Black-tailed godwit*, Dunlin*, Dark-bellied brent goose*	840.9	810.4	236
Dengie (Mid-Essex Coast Phase 1)	SPA and Ramsar	Wintering: Hen harrier, Grey plover*, Red knot*, Dark-bellied brent goose*	847.1	816.6	237
South West London Waterbodies	SPA and Ramsar	Wintering: Gadwall, Northern shoveler	846.2	818.1	238
Salisbury Plain	SPA	Breeding: Eurasian hobby, Common quail, Stone-curlew Wintering: Hen harrier	845.2	819.6	239
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)	SPA and Ramsar	Wintering: Dark-bellied brent goose*	850.4	820.4	240
Somerset Levels and Moors	SPA and Ramsar	Wintering: Bewick's swan*, Eurasian teal*, European golden plover*, Northern lapwing*	846.5	822.8	241
Thames Basin Heaths	SPA	Breeding: European nightjar, Wood lark, Dartford warbler	851.5	823.8	242
Foulness (Mid-Essex Coast Phase 5)	SPA and Ramsar	Breeding: Pied avocet*, Ringed plover, Sandwich tern, Common tern, Little tern Wintering: Hen harrier, Eurasian oystercatcher*, Pied avocet*, Grey plover*, Red knot*, Bar-tailed godwit*, Common redshank*, Dark-bellied brent goose*	860.0	829.4	243
Benfleet and Southend Marshes	SPA and Ramsar	Wintering: Ringed plover*, Grey plover*, Red knot*, Dunlin*, Dark-bellied brent goose*	861.0	831.1	244
Thames Estuary and Marshes	SPA and Ramsar	Wintering: Hen harrier, Pied avocet*, Grey plover*, Red knot*, Common redshank*, Black-tailed godwit*, Dunlin* Passage: Ringed plover	862.0	832.3	245

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Porton Down	SPA	Breeding: Stone-curlew	863.8	837.8	246
Medway Estuary and Marshes	SPA and Ramsar	Breeding: Pied avocet*, Common tern, Little tern Wintering: Red-throated diver*, Great crested grebe*, Great cormorant*, Bewick's swan*, Common shelduck*, Eurasian wigeon*, Eurasian teal*, Mallard*, Northern pintail*, Northern shoveler*, Common pochard*, Hen harrier, Merlin, Eurasian oystercatcher*, Pied avocet*, Ringed plover*, Grey plover*, Red knot*, Eurasian curlew*, Common redshank*, Common greenshank*, Ruddy turnstone*, Black-tailed godwit*, Dunlin*, Dark-bellied brent goose*, Northern lapwing*	872.4	842.5	247
Thursley, Hankley and Frensham Commons (Wealden Heaths Phase 1)	SPA	Breeding: European nightjar, Wood lark, Dartford warbler	874.1	846.5	248
Wealden Heaths Phase 2	SPA	Breeding: European nightjar, Wood lark, Dartford warbler	876.9	849.4	249
The Swale	SPA and Ramsar	Wintering: Gadwall*, Eurasian teal*, Eurasian oystercatcher*, Ringed plover*, Grey plover*, Eurasian curlew*, Common redshank*, Dunlin*, Dark-bellied brent goose*	880.0	849.9	250
New Forest	SPA and Ramsar	Breeding: European honey-buzzard, Eurasian hobby, European nightjar, Wood lark, Dartford warbler, Wood warbler Wintering: Hen harrier	883.7	857.8	251
Thanet Coast and Sandwich Bay	SPA and Ramsar	Breeding: Little tern Wintering: European golden plover, Ruddy turnstone	890.2	859.8	252
Dorset Heathlands	SPA and Ramsar	Breeding: European nightjar, Wood lark, Dartford warbler Wintering: Hen harrier, Merlin	888.7	863.1	253
Solent and Southampton Water	SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Roseate tern, Common tern, Little tern Wintering: Eurasian teal*, Ringed plover*, Black-tailed godwit*, Dark-bellied brent goose*	890.1	863.8	254
Avon Valley	SPA and Ramsar	Wintering: Bewick's swan, Gadwall	889.6	863.9	255
Solent and Dorset Coast	SPA	Breeding: Sandwich tern, Common tern, Little tern	891.7	865.2	256
Stodmarsh	SPA and Ramsar	Breeding: Gadwall* Wintering: Great bittern*, Eurasian wigeon*, Gadwall*, Mallard*, Northern shoveler*, Common pochard*, Tufted duck*, Hen harrier*, Water rail*, Northern lapwing*, Common snipe*, Greater white-fronted goose*	898.7	868.2	257

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Ashdown Forest	SPA	Breeding: European nightjar, Dartford warbler	897.6	868.8	258
Arun Valley	SPA and Ramsar	Wintering: Bewick's swan*	903.0	875.0	259
East Devon Heaths	SPA	Breeding: European nightjar, Dartford warbler	898.3	875.7	260
Portsmouth Harbour	SPA and Ramsar	Wintering: Red-breasted merganser, Black-tailed godwit, Dunlin, Dark-bellied brent goose	903.6	876.8	261
Exe Estuary	SPA and Ramsar	Wintering: Slavonian grebe*, Eurasian oystercatcher*, Pied avocet*, Grey plover*, Black-tailed godwit*, Dunlin*, Dark-bellied brent goose*	901.1	878.8	262
Chichester and Langstone Harbours	SPA and Ramsar	Breeding: Sandwich tern, Common tern, Little tern Wintering: Common shelduck*, Eurasian wigeon*, Eurasian teal*, Northern pintail*, Northern shoveler*, Red-breasted merganser*, Ringed plover*, Grey plover*, Sanderling*, Bar-tailed godwit*, Eurasian curlew*, Common redshank*, Ruddy turnstone*, Dunlin*, Dark-bellied brent goose*	906.6	879.6	263
Poole Harbour	SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Common tern Wintering: Little egret*, Common shelduck*, Pied avocet*, Spoonbill*, Black-tailed godwit*, Dark-bellied brent goose*, Great cormorant*, Eurasian curlew*, Dunlin*, Common goldeneye*, Common pochard*, Red-breasted merganser*, Common redshank*, Spotted redshank*, Common greenshank*, Eurasian teal*, Black-headed gull*	906.2	881.0	264
Chesil Beach and The Fleet	SPA and Ramsar	Breeding: Little tern Wintering: Eurasian wigeon	909.9	885.8	265
Pagham Harbour	SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Ruff, Dark-bellied brent goose	916.1	888.6	266
Dungeness, Romney Marsh and Rye Bay	SPA	Breeding: Eurasian marsh harrier, Pied avocet, Mediterranean gull, Sandwich tern, Common tern, Little tern Wintering: Great bittern, Bewick's swan, Northern shoveler, Hen harrier, European golden plover, Ruff, Greater white-fronted goose, Eurasian wigeon, Gadwall, Common pochard, Little grebe, Great crested grebe, Great cormorant, Common coot, Northern lapwing, Sanderling, Whimbrel, Common sandpiper Passage: Aquatic warbler	922.0	892.2	267
Tamar Estuaries Complex	SPA	Wintering: Pied avocet Passage: Little egret	925.0	904.3	268
Falmouth Bay to St Austell Bay	SPA	Wintering: Black-throated diver, Great northern diver, Slavonian grebe	938.8	919.7	269

SITE NAME	SITE STATUS	QUALIFYING INTEREST / FEATURES *(NB. *DENOTES FEATURES ARE PART OF BIRD ASSEMBLAGE)*	DISTANCE TO OAA (KM)	DISTANCE TO OFFSHORE EXPORT CABLE CORRIDOR (KM)	FIGURE 8-1 ID
Marazion Marsh	SPA	Wintering: Great bittern Passage: Aquatic warbler	963.9	947.4	270
Isles of Scilly	SPA and Ramsar	Breeding: European storm-petrel*, European shag*, Lesser black-backed gull*, Great black-backed gull*	986.0	972.4	271

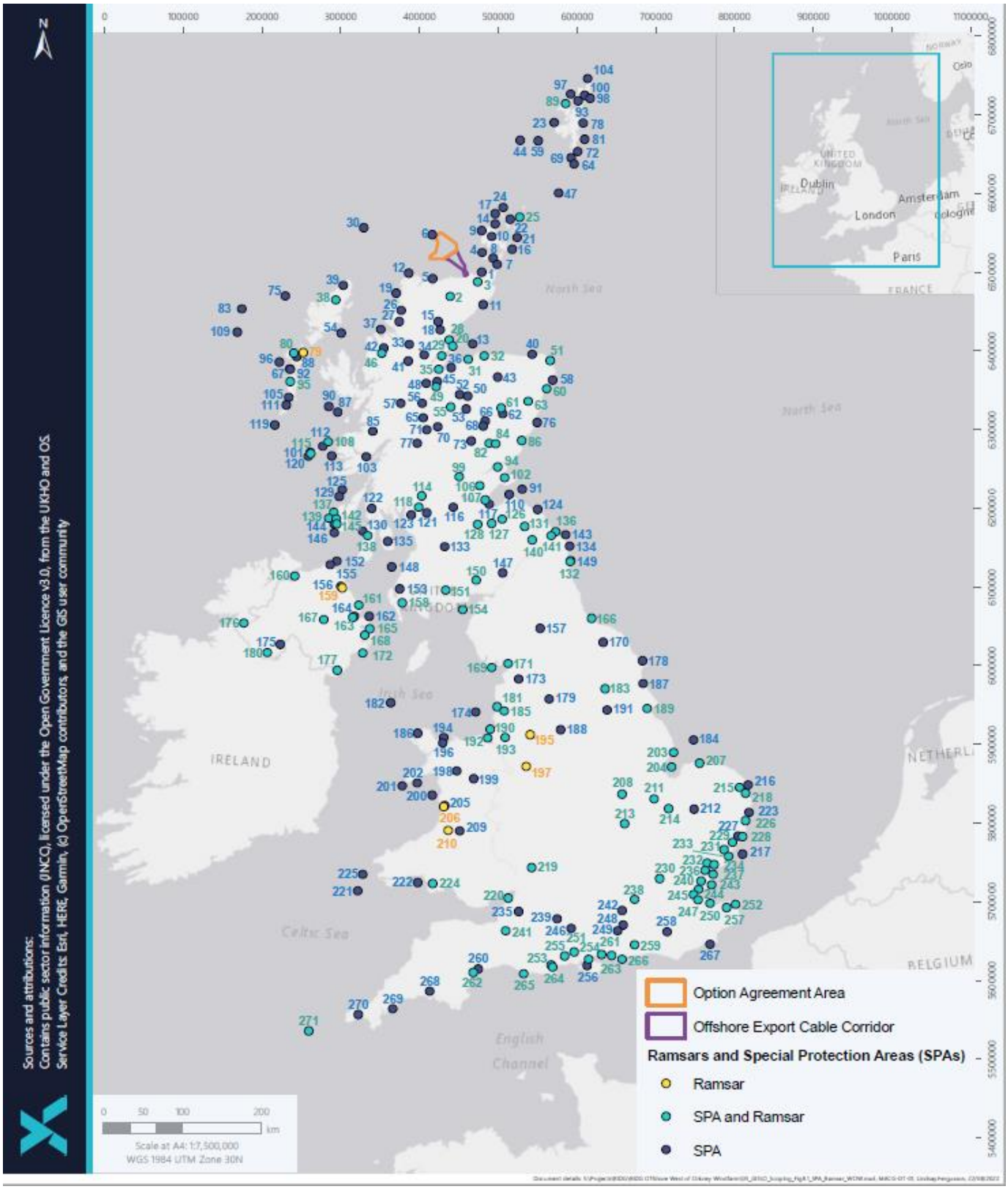

Figure 8-1 Location of SPAs and Ramsar Sites designated for qualifying features with potential connectivity with the offshore Project

8.3 Potential pathways for LSE

A number of potential pathways for LSE on qualifying features of SPAs and Ramsar sites with potential connectivity with the offshore Project have been identified. These pathways may occur during the pre-construction, construction, operation and maintenance, and decommissioning stages of the offshore Project, and are as follows:

- Pre-construction, construction and decommissioning:
  - Disturbance and/or displacement effects; and
  - Indirect effects through effects on habitats and/or prey species.
- Operation and maintenance:
  - Disturbance and/or displacement effects;
  - Indirect effects through effects on habitats and/or prey species;
  - Collision mortality; and
  - Barrier effects.

8.3.1 Pre-construction, construction and decommissioning: disturbance / displacement

The construction stage of the offshore Project has the potential to affect bird populations in the marine environment through disturbance due to construction activity leading to displacement of birds from construction sites. This would effectively result in temporary habitat loss through reduction in the area available for feeding, loafing and moulting. In addition, the anticipated habitat disturbed will be very small in the context of the wide areas in which seabirds are able to forage. Disturbance during pre-construction and construction may occur as a result of increased vessel activity and underwater noise, including some potential for UXO clearance. These activities have the potential to disturb and displace birds from within and around the offshore elements of the offshore Project, including the wind farm and the subsea cables. The level of disturbance at each work location would differ dependent on the activities taking place.

Bird species most likely to be vulnerable to underwater noise are those that forage by diving after fish or shellfish, and include auks, divers and seaduck. Gull and tern species feed at the surface only and are considered the least vulnerable, with no apparent responses to piling activity recorded at Egmond aan Zee (Leopold and Camphuysen 2007).

Sites designated for wildfowl and waders that are outside of the boundary of the offshore Project are not considered vulnerable to disturbance during construction.

8.3.2 Construction and decommissioning: indirect effects

Indirect disturbance and displacement of birds may occur during the construction stage if there are effects on prey species and/or the habitats of prey species. These indirect effects include those resulting from the production of underwater noise (e.g. during piling) and the generation of suspended sediments (e.g. during preparation of the seabed for foundations) that may alter the behaviour or availability of bird prey species. Underwater noise may cause fish and mobile invertebrates to avoid the construction area and affect their physiology and behaviour. Suspended sediments may cause fish and mobile invertebrates to avoid the construction area and may smother and hide

immobile benthic prey. These mechanisms result in less prey being available within the construction area to foraging seabirds.

During the non-breeding period the potential foraging area for displaced seabirds is likely to be greater than during the breeding season and displaced birds that feed on widely occurring fish species will be able to relocate to other suitable foraging areas within their normal range of distribution at this time.

European sites designated for wildfowl and waders that are outside of the boundary of the offshore Project are not considered vulnerable to disturbance during construction.

8.3.3 Operation: disturbance / displacement

The presence of wind turbines has the potential to directly disturb and displace birds from within and around the offshore windfarm sites. This is assessed as an indirect habitat loss, as it has the potential to reduce the area available to birds for feeding, loafing and moulting. Vessel activity and the lighting of wind turbines and associated ancillary structures could also attract (or repel) certain species of birds and affect migratory behaviour on a local scale. As offshore wind farms are a relatively new feature in the marine environment, there is limited evidence as to the disturbance and displacement effects of the operational infrastructure on birds in the long term.

Seabird species vary in their reactions to the presence of operational infrastructure (e.g. wind turbines, and offshore substation platforms) and to the maintenance activities that are associated with it (particularly ship and helicopter traffic), with Garthe and Hüppop (2004) presenting a scoring system for such disturbance factors, which is used widely in offshore wind farm EIAs. Some species avoid offshore wind farms immediately post-construction and return to the area after a period of time and other species show little or no evidence of returning to the wind farm area post-construction. The likely scale of displacement effects varies by species, therefore, depending on their sensitivity (Langston, 2010) and the density within the offshore wind farm (and adjoining) areas.

The implications for birds displaced from wind farms will also vary depending on the availability of other habitats which can support those birds. Quantifying the risk to birds requires, therefore, predictions based on modelling which takes into account these variables. Typically, this involves estimating the proportion of birds present that are likely to be displaced and then the proportion of those birds that are displaced that will be unable to successfully relocate (leading to death or emigration). It also requires separating out the risk to birds that are associated with those populations that form SPA qualifying features from other populations that are not SPA qualifying features (as the birds recorded at a wind farm site are likely a mixture of both).

Seabirds are considered to be most at risk from operational disturbance and displacement effects when they are resident (e.g. during the breeding season or non-breeding season). The small risk of effect to migrating birds is better considered in terms of barrier effects.

Sites designated for wildfowl and waders that are outside of the boundary of the offshore Project are not considered vulnerable to disturbance during operation.

8.3.4 Operation: collision risk

There is a potential risk of collision with the wind turbine rotors and associated infrastructure resulting in injury or fatality to birds which fly through the OAA whilst foraging for food and commuting between breeding sites and foraging areas.

The risk of collision with wind turbine generators depends on a number of variables, such as species-specific avoidance rates, flight heights, speed of flight, frequency of movements in or near to the turbines as well as the size and location of the turbines themselves. Further, additional factors such as weather and species' behaviour can also affect the risk of collision. Quantifying the risk to birds requires, therefore, predictions based on modelling which takes into account these variables. It also requires separating out the risk to birds that are associated with those populations that form SPA qualifying features from other populations that are not SPA features (as the birds recorded at a wind farm site are likely a mixture of both).

Pending a detailed collision risk assessment for the offshore Project, it is assumed that for seabird species vulnerable to collision effects, and where a population of that species is also a feature of an SPA that is within foraging range + 1SD (for that species) of the OAA, then, for the purposes of this screening exercise, it is assumed that no potential LSE could not be objectively excluded. This is on the basis that there is likelihood that foraging birds from the SPA could occur within the operational wind farm and be exposed to collision risk, although at this stage the scale of that risk has yet to be quantified.

For sites designated for wildfowl and waders that are outside of the boundary of the offshore Project, the risk of collision refers to biannual migratory movements only.

8.3.5 Operation: barrier effects

The presence of the offshore Project could potentially create a barrier to bird migration and foraging routes, and as a consequence, the offshore Project has the potential to result in long-term changes to bird movements. It has been shown that some species (divers and scoters) avoid wind farms by making detours around wind turbine arrays which potentially increases their energy expenditure (Petersen *et al.*, 2006; Petersen and Fox, 2007), which under some circumstances could potentially decrease survival rates. Such effects may have a greater effect on birds that regularly commute around a wind farm (e.g. birds heading to / from foraging grounds and roosting / nesting sites) than on migrants that would only have to negotiate around a wind farm once per migratory period, or twice per annum, if flying the same return route (Speakman *et al.*, 2009).

During the spring and autumn migration periods, the route taken by migrating individuals may change due to the barrier effect created by the wind turbines. Although migrating birds may have to increase their energy expenditure to circumvent the OAA at a time when their energy budgets are typically restricted, this effect is likely to be small for one-off avoidances. Masden *et al.* (2010, 2012) and Speakman *et al.* (2009) calculated that the costs of one-off avoidances during migration were small, accounting for less than 2% of available fat reserves.

Several species of seabirds could be susceptible to a barrier effect, outside of passage movements, if the presence of wind turbines prevented access to foraging grounds or made the journey to or from foraging grounds more energetically expensive, particularly during the breeding season. The foraging ranges of the seabirds in the North

Sea are relatively large during the breeding period with migratory movements through the North Sea occurring across a broad front (Wernham *et al*., 2002). Many of the species subject to this assessment migrate many thousands of kilometres each year and it is therefore anticipated that they will be capable of flying around or over the offshore Project should they choose to do so without a significant increase in distance travelled and/or energy expenditure.

Barrier effects are not considered relevant to features affected by the offshore export cable corridor only.

8.4 Determination of no potential LSE

The results of the assessment to determine the potential for no potential LSE as a result of the offshore Project on SPAs and Ramsar sites designated for ornithological features are presented in Table 8-2. Justification for whether no potential LSE can be concluded is also provided. Where no potential LSE is concluded, the particular site / pathway for LSE has been greyed out. Where all potential pathways for LSE in a Project stage have been screened out then the Project stage column has also been greyed out and when all potential pathways for LSE across all Project stages have been screened out, then the European site has been greyed out as well.

Each possible site where no potential LSE cannot be objectively concluded is discussed and appraised to determine whether:

- There is no potential LSE upon the SPA and Ramsar Site or qualifying feature (and so screening out of any future RIAA can take place); or
- It is likely that no potential LSE cannot be concluded and hence further consideration within a RIAA is required to assess affects upon the integrity of the SPA and Ramsar site.

Table 8-2 Determination of no potential LSE for SPAs designated for ornithological features

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
North Caithness Cliffs SPA	Breeding: Northern fulmar, Peregrine falcon, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Preconstruction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (27 km) and offshore export cable corridor (2 km) for designated breeding fulmar, kittiwake, common guillemot, razorbill and puffin. There is potential for disturbance to these species from construction and decommissioning vessels during the breeding season. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, kittiwake, common guillemot, razorbill and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird and raptor populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Caithness and Sutherland Peatlands SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Eurasian wigeon, common scoter, Hen harrier, Golden eagle, Merlin, European golden plover, Common greenshank, Wood sandpiper, Short-eared owl, Dunlin	Preconstruction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (23 km) and offshore export cable corridor (7 km) for designated breeding divers. There is potential for construction and decommissioning vessels to disturb designated breeding red-throated diver and black-throated diver during the breeding season within the offshore export cable corridor. Construction and decommissioning vessels are unlikely to disturb designated wildfowl, raptors and waders during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to red-throated diver and black-throated diver from operation and maintenance vessels. Uncertain proportions of the diver, wildfowl, wader and raptor populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Caithness Lochs SPA and Ramsar	Wintering: Whooper swan, Greylag goose, Greenland white-fronted goose	Preconstruction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 7.5 km to the offshore export cable corridor and 40 km to the OAA

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated wildfowl either during the non-breeding season or during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Uncertain proportions of the wildfowl populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Hoy SPA	Breeding: Red-throated diver, Northern fulmar, Peregrine falcon, Arctic skua, Great skua, Great black-backed gull, Black-legged kittiwake, Common guillemot, Atlantic puffin	Preconstruction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (25 km) and offshore export cable corridor (22 km) for designated breeding fulmar, great skua, great black-backed gull, kittiwake, common guillemot and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, great skua, great black-backed gull, kittiwake, common guillemot and puffin from operation and maintenance vessels. There is a potential collision risk for breeding fulmar, great skua, great black-backed gull and kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by barrier effects. Uncertain proportions of the peregrine falcon population may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
North Sutherland Coastal Islands SPA	Wintering: Barnacle goose	Preconstruction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	Construction and decommissioning vessels are unlikely to disturb designated barnacle geese either during the non-breeding season or during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No LSE cannot be concluded	Uncertain proportions of the wildfowl populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Sule Skerry and Sule Stack SPA	Breeding: European storm-petrel, Leach's storm-petrel, Northern gannet, European shag, Common guillemot, Atlantic puffin	Preconstruction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (2 km) and offshore export cable corridor (29 km) for designated breeding European storm-petrel, Leach's storm-petrel, gannet, common guillemot and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding European storm-petrel, Leach's storm-petrel, gannet, common guillemot and puffin from operation and maintenance vessels. There is a potential collision risk for breeding gannet from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Pentland Firth Islands SPA	Breeding: Arctic tern	Construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the offshore export cable corridor (36.5 km) for designated breeding Arctic tern. There is potential for disturbance to Arctic tern during the breeding season and during migration from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Arctic tern from operation and maintenance vessels. Uncertain proportions of the Arctic tern population may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Switha SPA	Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 37 km to the offshore export cable corridor and 47 km to the OAA. Barnacle geese are unlikely to migrate through the OAA and offshore export cable corridor. Construction and decommissioning vessels are unlikely to disturb designated barnacle geese either during the non-breeding season or during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	Uncertain proportions of the barnacle goose population may migrate through the OAA and could potentially be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Marwick Head SPA	Breeding: Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (35 km) and offshore export cable corridor (38 km) for designated breeding kittiwake and common guillemot. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding kittiwake and common guillemot from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by barrier effects.
Orkney Mainland Moors SPA	Breeding: Red-throated diver, Hen harrier, Short-eared owl; Wintering: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 40 km to the offshore export cable corridor and OAA. This SPA is beyond foraging range +1SD for designated red-throated diver and this species is unlikely to be disturbed by construction and decommissioning traffic during the breeding season. Construction and decommissioning vessels are unlikely to disturb designated divers and raptors during the breeding season, non-breeding season or during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Uncertain proportions of the hen harrier and red-throated diver population may migrate through the OAA and offshore export cable corridor and could potentially be affected by collision risk and barrier effects.
East Caithness Cliffs SPA	Breeding: Northern fulmar, Great cormorant, European shag, Peregrine falcon, Herring gull, Great black-backed gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (70 km) and offshore export cable corridor (40 km) for designated breeding fulmar, herring gull, great black-backed gull, kittiwake, common guillemot and razorbill. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, herring gull, great black-backed gull, kittiwake, common guillemot and razorbill from operation and maintenance vessels. There is a potential collision risk for breeding herring gull, great black-backed gull, kittiwake from operational turbines. Uncertain proportions of the seabird and raptor populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Cape Wrath SPA	Breeding: Northern fulmar, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (26 km) and offshore export cable corridor (42 km) for designated breeding fulmar, kittiwake, common guillemot and razorbill and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, kittiwake, common guillemot and razorbill and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and offshore export cable corridor and could potentially be affected by collision risk and barrier effects.
Moray Firth SPA	Breeding: European shag Wintering: Red-throated diver, Great northern diver, Slavonian grebe, European shag, Greater scaup, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is beyond 50 km from the offshore export cable corridor and 80 km to the OAA and is beyond foraging distance + 1SD for breeding shag. Shag may potentially be disturbed by construction and decommissioning vessels during the non-breeding season and migration. Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Shag may potentially be disturbed by operation and maintenance vessels during the non-breeding season and migration. Uncertain proportions of the wildfowl populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Rousay SPA	Breeding: Northern fulmar, Arctic skua, Black-legged kittiwake, Arctic tern, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (49 km) and offshore export cable corridor (53 km) for designated breeding fulmar, kittiwake and common guillemot. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to fulmar, kittiwake and common guillemot from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Lairg and Strath Brora Lochs SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 59 km to the offshore export cable corridor and 76 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Copinsay SPA	Breeding: Northern fulmar, Great black-backed gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding fulmar, great black-backed gull, kittiwake and common guillemot. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, great black-backed gull, kittiwake and common guillemot from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and great black-backed gull from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
West Westray SPA	Breeding: Northern fulmar, Arctic skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding fulmar, kittiwake, common guillemot and razorbill. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, kittiwake, common guillemot and razorbill from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Strath Carnaig and Strath Fleet Moors SPA	Breeding: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 68 km to the offshore export cable corridor and 81 km to the OAA Construction and decommissioning vessels are unlikely to disturb designated raptors either during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to migrating hen harrier from operation and maintenance vessels. There is a potential collision risk for migrating hen harrier from operational turbines. Uncertain proportions of the hen harrier population may migrate through the OAA and could potentially be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Handa SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding fulmar, great skua, kittiwake, common guillemot and razorbill. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, great skua, kittiwake, common guillemot and razorbill from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and great skua from operational turbines. Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Dornoch Firth and Loch Fleet SPA and Ramsar	Breeding: Osprey Wintering: Greylag goose, Eurasian wigeon, Eurasian teal, Greater scaup, Eurasian oystercatcher, Bar-tailed godwit, Eurasian curlew, Common redshank, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 73 km to the offshore export cable corridor and 90 km to the OAA Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for migrating wintering greylag goose, wigeon, teal, scaup, oystercatcher, bar-tailed godwit, curlew and redshank be affected by collision risk and barrier effects.
Auskerry SPA	Breeding: European storm-petrel, Arctic tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding storm petrel. There is potential for disturbance to this species from construction and decommissioning vessels during the breeding season and migration. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for disturbance to breeding storm petrel from operation and maintenance vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		Uncertain proportions of the seabird populations most likely migrate through the OAA and could potentially be affected by disturbance and barrier effects.
Calf of Eday SPA	Breeding: Northern fulmar, Great cormorant, Great black-backed gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding fulmar, great black-backed gull, kittiwake and common guillemot. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, great black-backed gull, kittiwake and common guillemot from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and great black-backed gull from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and offshore export cable corridor and could potentially be affected by disturbance and barrier effects.
Papa Westray (North Hill and Holm) SPA	Breeding: Arctic skua, Arctic tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	The SPA is beyond foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding Arctic skua and Arctic tern. However, there is potential for disturbance from construction and decommissioning vessels to breeding Arctic skua and Arctic tern within the offshore export cable corridor during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	Uncertain proportions of the breeding Arctic skua and Arctic tern populations may migrate through the offshore export cable corridor. There is potential for disturbance from operation and maintenance vessels to breeding Arctic skua and Arctic tern within the offshore export cable corridor during migration.
East Sanday Coast SPA and Ramsar	Wintering: Purple sandpiper, Bar-tailed godwit, Ruddy turnstone	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 85 km to the offshore export cable corridor and 82 km to the OAA Construction and decommissioning vessels are unlikely to disturb designated waders either during the non-breeding season or during migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering bar-tailed godwit, turnstone and purple sandpiper to migrate through the OAA and be affected by collision risk and barrier effects.
Assynt Lochs SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 84 km to the offshore export cable corridor and 73 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Inverpolly, Loch Urigill and nearby Lochs SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 88 km to the offshore export cable corridor and 81 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		
Loch Eye SPA and Ramsar	Wintering: Whooper swan, Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 90 km to the offshore export cable corridor and 111 km to the OAA Construction and decommissioning vessels are unlikely to disturb designated wildfowl either during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan and greylag goose to migrate through the OAA and be affected by collision risk and barrier effects.
Cromarty Firth SPA and Ramsar	Breeding: Osprey, Common tern Wintering: Whooper swan, Greylag goose, Eurasian wigeon, Northern pintail, Greater scaup, Red-breasted merganser, Eurasian oystercatcher, Bar-tailed godwit, Eurasian curlew, Common redshank, red knot, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 96 km to the offshore export cable corridor and 117 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding common tern. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance from operation and maintenance vessels to designated breeding common tern and wintering whooper swan, greylag goose, wigeon, pintail, scaup, red-breasted merganser, oystercatcher, bar-tailed godwit, curlew, redshank and red knot during migration Uncertain proportions of the designated breeding common terns wintering wader and wildfowl populations may migrate through the OAA and offshore export cable corridor.
North Rona and Sula Sgeir SPA	Breeding: Northern fulmar, European storm-petrel, Leach's storm-petrel, Northern gannet, Great black-backed gull, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (80 km) and offshore export cable corridor (98 km) for designated breeding fulmar, storm-petrel, Leach's storm-petrel, gannet, kittiwake, common guillemot, razorbill and puffin. There is potential for disturbance to these species from construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, storm-petrel, Leach's storm-petrel, kittiwake, common guillemot, razorbill and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and gannet from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Moray and Nairn Coast SPA and Ramsar	Breeding: Osprey; Wintering: Pink-footed goose, Greylag goose, Eurasian wigeon, Red-breasted merganser, Eurasian oystercatcher, Bar-tailed godwit, Common redshank, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 104 km to the offshore export cable corridor and 129 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose, greylag goose, wigeon, red-breasted merganser, oystercatcher, bar-tailed godwit and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Spynie SPA and Ramsar	Wintering: Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 104 km to the offshore export cable corridor and 134 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering greylag goose to migrate through the OAA and be affected by collision risk and barrier effects.
Beinn Dearg SPA	Breeding: Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 106 km to the offshore export cable corridor and the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Ben Wyvis SPA	Breeding: Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 109 km to the offshore export cable corridor and 119 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Inner Moray Firth SPA and Ramsar	Breeding: Osprey, Common tern Wintering: Great cormorant, Greylag goose, Eurasian wigeon, Eurasian teal, Greater scaup, Common goldeneye, Red-breasted merganser, Goosander, Eurasian oystercatcher, Black-tailed godwit, Eurasian curlew, Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 112 km to the offshore export cable corridor and 132 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding common tern. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding common tern and wintering cormorant, greylag goose, wigeon, teal, scaup, goldeneye, red-breasted merganser, goosander, oystercatcher, black-tailed godwit (Icelandic race), curlew and redshank to migrate through the OAA and be potentially affected by collision risk and barrier effects.
Loch Flemington SPA	Breeding: Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 118 km to the offshore export cable corridor and 139 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated grebes during the breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding Slavonian grebes to migrate through the OAA and be affected by collision risk and barrier effects.
Priest Island (Summer Isles) SPA	Breeding: European storm-petrel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (108 km) and offshore export cable corridor (121 km) for designated breeding storm-petrel. There is potential for disturbance to this species from construction and decommissioning vessels during the breeding season and during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for disturbance to breeding storm-petrel from operation and maintenance vessels. Uncertain proportions of the storm-petrel population may migrate through the OAA and could potentially be affected by disturbance and barrier effects.
Lewis Peatlands SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Golden eagle, Merlin, European golden plover, Common greenshank, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 124 km to the offshore export cable corridor and 105 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding divers and these species are unlikely to migrate through the OAA and offshore export cable corridor during migration. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding greenshank and golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Ness and Barvas, Lewis SPA	Breeding: Corncrake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 125 km to the offshore export cable corridor and 106 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects.
Troup, Pennan and Lion's Heads SPA	Breeding: Northern fulmar, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding fulmar, kittiwake, common guillemot and razorbill. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, kittiwake, common guillemot and razorbill from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Achanalt Marshes SPA	Breeding: Wood sandpiper	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	Wood sandpiper are unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wood sandpiper are unlikely to migrate through the OAA and offshore export cable corridor.
Wester Ross Lochs SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 130 km to the offshore export cable corridor and 119 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Tips of Corsemaul and Tom Mor SPA	Breeding: Common gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the offshore export cable corridor (134 km) and the OAA (164k m) for designated breeding common gull. The majority of migrating common gull are likely move south in autumn along the east side of Scotland, tracking the coastline in a band from 0 to 20 km from shore. Due to the distance between the SPA and the offshore Project as well as the general migration direction, common gulls are unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	SPA is beyond foraging range (+ 1SD) to the offshore Project and common gulls are unlikely to migrate through the OAA and offshore export cable corridor.
Seas off Foula SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Common guillemot, Atlantic puffin Wintering: Northern fulmar, Great skua, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (127 km) and offshore export cable corridor (137 km) for designated breeding/wintering fulmar, great skua, common guillemot and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding/wintering fulmar, great skua, common guillemot and puffin from operation and maintenance vessels. There is a potential collision risk for breeding and wintering great skua from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Loch Ashie SPA	Passage: Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 137 km to the offshore export cable corridor and 155 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated grebe during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated passage Slavonian grebe population to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Maree SPA and Ramsar	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 130 km to the offshore export cable corridor and 119 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Fair Isle SPA	Breeding: Northern fulmar, Northern gannet, European shag, Arctic skua, Great skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill, Atlantic puffin, Fair Isle wren	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (140 km) and offshore export cable corridor (143 km) for designated breeding fulmar, gannet, great skua, kittiwake, common guillemot, razorbill and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, gannet, great skua, kittiwake, common guillemot, razorbill and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake, gannet and great skua from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
North Inverness Lochs SPA	Breeding: Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 144 km to the offshore export cable corridor and 158 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated grebes during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated breeding Slavonian grebe to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Ruthven SPA and Ramsar	Breeding: Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 144 km to the offshore export cable corridor and 158 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated grebes during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated breeding Slavonian grebe to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Abernethy Forest SPA	Breeding: Osprey, Scottish crossbill Permanent: Western capercaillie	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 148 km to the offshore export cable corridor and 172 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated species during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding ospreys are unlikely to migrate through the OAA and offshore export cable corridor. Scottish crossbill and capercaillie are resident species and will not pass through the OAA and offshore export cable corridor.
Loch of Strathbeg SPA and Ramsar	Breeding: Sandwich tern Wintering: Whooper swan, Pink-footed goose, Greylag goose, Barnacle goose, Eurasian teal, Common goldeneye	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 150 km to the offshore export cable corridor and 182 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding Sandwich tern. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, pink-footed goose greylag goose, barnacle goose and teal to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Vaa SPA	Breeding: Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 151 km to the offshore export cable corridor and 174 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated grebes during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential designated breeding Slavonian grebe to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Cairngorms SPA	Breeding: Golden eagle, Osprey, Merlin, Peregrine falcon, Eurasian dotterel, Scottish crossbill Permanent: Western capercaillie	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 156 km to the offshore export cable corridor and 179 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and passerines during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Shiant Isles SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (142 km) and offshore export cable corridor (157 km) for designated breeding fulmar, kittiwake, common guillemot, razorbill and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance breeding fulmar, kittiwake, common guillemot, razorbill and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations and migrating barnacle goose may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
River Spey - Insh Marshes SPA and Ramsar	Breeding: Eurasian wigeon, Osprey, Spotted crake, Wood sandpiper Wintering: Whooper swan, Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 162 km to the offshore export cable corridor and 184 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential designated breeding wigeon as well as wintering whooper swan and hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		
Loch Knockie and Nearby Lochs SPA	Breeding: Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 163 km to the offshore export cable corridor and 177 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated grebes during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding Slavonian grebe to migrate through the OAA and be affected by collision risk and barrier effects.
West Inverness-shire Lochs SPA	Breeding: Black-throated diver, Common scoter	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 166 km from the offshore export cable corridor and 171 km to the OAA Breeding black-throated diver from this SPA are unlikely to migrate through the OAA and offshore export cable corridor. Construction and decommissioning vessels are unlikely to disturb designated common scoter during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding common scoter to migrate through the OAA and be affected by collision risk and barrier effects.
Buchan Ness to Collieston Coast SPA	Breeding: Northern fulmar, European shag, Herring gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (199 km) and offshore export cable corridor (167 km) for designated breeding fulmar and kittiwake. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar and kittiwake from operation and maintenance vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Foula SPA	Breeding: Red-throated diver, Northern fulmar, Leach's storm-petrel, European shag, Arctic skua, Great skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (161 km) and offshore export cable corridor (167 km) for designated breeding fulmar, great skua, kittiwake, razorbill and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, great skua, kittiwake, razorbill, puffin and red-throated diver from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and great skua from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Ythan Estuary, Sands of Forvie and Meikle Loch SPA and Ramsar	Breeding: Sandwich tern, Common tern, Little tern Wintering: Pink-footed goose, Common eider, Northern lapwing, Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 169 km to the offshore export cable corridor and 202 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding terns. All three tern species from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose and redshank to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Muir of Dinnet SPA and Ramsar	Wintering: Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 173 km to the offshore export cable corridor and 202 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated geese during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering greylag goose to migrate through the OAA and be affected by collision risk and barrier effects.
Glen Tanar SPA	Breeding: Hen harrier, Osprey, Scottish crossbill Permanent: Western capercaillie	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 178 km to the offshore export cable corridor and 207 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration. Scottish crossbill and capercaillie are resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Loch of Skene SPA and Ramsar	Wintering: Greylag goose, Common goldeneye, Goosander	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 178 km to the offshore export cable corridor and 207 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated wintering greylag goose to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Sumburgh Head SPA	Breeding: Northern fulmar, Black-legged kittiwake, Arctic tern, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (177 km) and offshore export cable corridor (181 km) for designated breeding fulmar and kittiwake. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar and kittiwake from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Creag Meagaidh SPA	Breeding: Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 182 km to the offshore export cable corridor and 198 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Lochnagar SPA	Breeding: Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 183 km to the offshore export cable corridor and 210 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
West Coast of the Outer Hebrides SPA	Breeding: Red-throated diver Wintering: Black-throated diver, Great northern diver, Slavonian grebe, Common eider, Long-tailed duck, Red-breasted merganser	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 184 km to the offshore export cable corridor and 167 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding and wintering red-throated diver and black-throated diver and these species are unlikely to migrate through the OAA and offshore export cable corridor during migration. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Slavonian grebe, long-tailed duck and red-breasted merganser to migrate through the OAA and be affected by collision risk and barrier effects.
Caenlochan SPA	Breeding: Golden eagle, Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 185 km to the offshore export cable corridor and 211 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Lochs of Spiggie and Brow SPA	Wintering: Whooper swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 186 km to the offshore export cable corridor and 182 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Drumochter Hills SPA	Breeding: Merlin, Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 187 km to the offshore export cable corridor and 206 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Ben Alder SPA	Breeding: Eurasian dotterel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 197 km to the offshore export cable corridor and 214 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding dotterel to migrate through the OAA and be affected by collision risk and barrier effects.
Mousa SPA	Breeding: European storm-petrel, Arctic tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (193 km) and offshore export cable corridor (198 km) for designated breeding storm-petrel. There is potential for disturbance to this species from construction and decommissioning vessels during the breeding season and during migration. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding Arctic terns and this species is unlikely to migrate through the OAA and offshore export cable corridor during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for disturbance to breeding storm-petrel from operation and maintenance vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		Uncertain proportions of the storm-petrel population may migrate through the OAA and could be affected by disturbance and barrier effects.
Forest of Clunie SPA	Breeding: Hen harrier, Osprey, Merlin, Short-eared owl	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 199 km to the offshore export cable corridor and 223 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Papa Stour SPA	Breeding: Arctic tern Passage: Ringed plover	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 202 km to the offshore export cable corridor and 196 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding Arctic terns. Terns are likely to migrate south along the coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Breeding ringed plover may migrate through the OAA and could be affected by collision risk and barrier effects.
Flannan Isles SPA	Breeding: Northern fulmar, Leach's storm-petrel, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (184 km) and offshore export cable corridor (203 km) for designated breeding fulmar, kittiwake and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, kittiwake and puffin from operation and maintenance vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Indirect effects through effects on habitats and prey species Collision risk Barrier effect		There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Fowlsheugh SPA	Breeding: Northern fulmar, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (237 km) and offshore export cable corridor (205 km) for designated breeding fulmar and kittiwake. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar and kittiwake from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Rannoch Lochs SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 207 km to the offshore export cable corridor and 222 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
East Mainland Coast, Shetland SPA	Breeding: Red-throated diver Wintering: Great northern diver, Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 163 km to the offshore export cable corridor and 177 km to the OAA. SPA is beyond foraging range (+ 1SD) for designated breeding red-throated diver. Breeding red-throated diver and wintering great northern diver (the latter species breeding further north in Iceland of Greenland) are unlikely to migrate through the OAA and offshore export cable corridor. Construction and decommissioning vessels are unlikely to disturb designated grebes during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Slavonian grebe to migrate through the OAA and be affected by collision risk and barrier effects.
Loch an Duin Ramsar	Breeding: Common tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (194 km) and offshore export cable corridor (210 km) for breeding common terns. Common terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding common terns are unlikely to migrate through the OAA and offshore export cable corridor.
North Uist Machair and Islands SPA and Ramsar	Breeding: Corncrake, Eurasian oystercatcher, Ringed plover, Common redshank, Dunlin Wintering: Barnacle goose, Ringed plover, Purple sandpiper, Ruddy turnstone	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 211 km to the offshore export cable corridor and 194 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated passerines, wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake, oystercatcher, redshank as well as wintering barnacle goose, ringed plover, purple sandpiper and turnstone to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Noss SPA	Breeding: Northern fulmar, Northern gannet, Great skua, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (206 km) and offshore export cable corridor (211 km) for designated breeding fulmar, gannet, kittiwake and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, gannet, kittiwake and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and gannet from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Loch of Lintrathen SPA and Ramsar	Wintering: Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 214 km to the offshore export cable corridor and 241 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering greylag geese to migrate through the OAA and be affected by collision risk and barrier effects.
Seas off St Kilda SPA	Breeding: Northern fulmar ,European storm-petrel, Northern gannet, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (197 km) and offshore export cable corridor (215 km) for designated breeding fulmar, storm-petrel, gannet and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, storm-petrel, gannet and puffin from operation and maintenance vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		There is a potential collision risk for breeding gannet from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Loch of Kinnordy SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 217 km to the offshore export cable corridor and 244 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering greylag goose and pink-footed goose to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Shiel SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 217 km to the offshore export cable corridor and 220 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Montrose Basin SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose, Common shelduck, Eurasian wigeon,	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 217 km to the offshore export cable corridor and 247 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	Common eider, Eurasian oystercatcher, Common redshank, red knot, Dunlin				Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for wintering greylag goose, pink-footed goose, wigeon, oystercatcher, redshank and knot to migrate through the OAA and be affected by collision risk and barrier effects.
Rum SPA	Breeding: Red-throated diver, Manx shearwater, Golden eagle, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (212 km) and offshore export cable corridor (220 km) for designated breeding Manx shearwater and kittiwake. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Manx shearwater and kittiwake from operation and maintenance vessels. There is a potential collision risk for breeding kitiwke from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Mointeach Scadabhaigh SPA	Breeding: Red-throated diver, Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 221 km to the offshore export cable corridor and 205 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding red-throated diver and black-throated diver. Due to the distance between the SPA and the offshore Project and the southern migration direction of red-throated and black-throated divers after the breeding season, these species are unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Red-throated divers and black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Ronas Hill - North Roe and Tingon SPA and Ramsar	Breeding: Red-throated diver, Great skua	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (225 km) and offshore export cable corridor (219 km) for designated breeding great skua. There is potential for disturbance to this species from construction and decommissioning vessels during the breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding great skua from operation and maintenance vessels. There is a potential collision risk for breeding great skua from operational turbines. Uncertain proportions of the great skua population may migrate through the OAA and could be affected by collision risk and barrier effects.
Canna and Sanday SPA	Breeding: European shag, Herring gull, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (221 km) and offshore export cable corridor (233 km) for designated breeding kittiwake and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding kittiwake and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Outer Firth of Forth and St Andrews Bay Complex SPA	Breeding: Manx shearwater, Northern gannet, European shag, Herring gull, Black-legged kittiwake, Common tern, Arctic tern, Common guillemot, Atlantic puffin Wintering: Red-throated diver, Slavonian grebe, European shag, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (266 km) and offshore export cable corridor (236 km) for designated breeding Manx shearwater, gannet, kittiwake and puffin. There is potential for disturbance to these species during the breeding season from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	merganser, Little gull, Black-headed gull, Common gull, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill				Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Manx shearwater, gannet, kittiwake and puffin as well as wintering kittiwake from operation and maintenance vessels. There is a potential collision risk for breeding gannet and kittiwake as well as wintering kittiwake from operational turbines. Uncertain proportions of the seabird and wildfowl populations may migrate through the OAA and could be affected by collision risk and barrier effects. Migrating Slavonian grebe, long-tailed duck and common scoter passing though the OAA could be affected by collision risk and barrier effects.
Aird and Borve, Benbecula SPA	Breeding: Corncrake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 239 km to the offshore export cable corridor and 223 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects.
Otterswick and Graveland SPA	Breeding: Red-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 240 km to the offshore export cable corridor and 234 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding red-throated divers. Due to the distance between the SPA and the offshore Project, the southern migration direction of red-throated divers after the breeding season and that migration is most likely to occur in a coastal band from 0-20 km from shore, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE concluded	Red-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Firth of Tay and Eden Estuary SPA and Ramsar	Breeding: Eurasian marsh harrier, Little tern Wintering: Great cormorant, Pink-footed goose, Greylag goose, Common shelduck, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser, Goosander, Eurasian oystercatcher, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, Black-tailed godwit, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 241 km to the offshore export cable corridor and 267 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding little tern. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose, greylag goose, long-tailed duck, common scoter, velvet scoter, oystercatcher, grey plover, sanderling, bar-tailed godwit, redshank and black-tailed godwit (Icelandic race) during to migrate through the OAA and be affected by collision risk and barrier effects.
South Uist Machair and Lochs SPA and Ramsar	Breeding: Corncrake, Eurasian oystercatcher, Ringed plover, Common redshank, Little tern, Dunlin Wintering: Ringed plover, Sanderling	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 245 km to the offshore export cable corridor and 229 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding little tern and connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated corncrake, and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake, oystercatcher, ringed plover and redshank as well as wintering ringed plover and sanderling to migrate through the OAA and be affected by collision risk and barrier effects.
Monach Islands SPA	Breeding: Little tern Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	Barnacle geese are unlikely to migrate through the OAA and offshore export cable corridor. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (194 km) and offshore export cable corridor (210 km) for breeding common terns. Common terns from this SPA likely migrate south

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated barnacle geese either during the non-breeding season or during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Uncertain proportions of the barnacle goose population may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Ramna Stacks and Gruney SPA	Breeding: Leach's storm-petrel	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	The SPA is just beyond mean maximum foraging range (+ 1SD) to the OAA (238 km) and the offshore export cable corridor (245 km) for designated breeding Leach's storm-petrel and there is limited potential for disturbance to this species from construction and decommissioning vessels during the breeding season.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is very limited potential for Leach's storm-petrel to migrate through the OAA and offshore export cable corridor. Leach's storm-petrels breeding in Scotland depart to the South Atlantic after the breeding season, almost all migration of this species through Scottish waters has been recorded in SW Scotland or off the Western Isles. Very few birds of this species enter the North Sea, and the species is very rarely seen in Orkney waters even during autumn migration.
Fetlar SPA	Breeding: Northern fulmar, Whimbrel, Red-necked phalarope, Arctic skua, Great skua, Arctic tern, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (241 km) and offshore export cable corridor (247 km) for designated breeding fulmar and great skua. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, great skua, whimbrel and red-necked phalarope from operation and maintenance vessels. There is a potential collision risk for breeding great skua from operational turbines.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		Uncertain proportions of the seabird, skua and wader populations may migrate through the OAA and be affected by collision risk and barrier effects.
South Tayside Goose Roosts SPA and Ramsar	Breeding: Eurasian wigeon Wintering: Pink-footed goose, Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 248 km to the offshore export cable corridor and 272 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding wigeon as well as wintering greylag goose and pink-footed goose to migrate through the OAA and be affected by collision risk and barrier effects.
Bluemull and Colgrave Sounds SPA	Breeding: Red-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 249 km to the offshore export cable corridor and 242 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding red-throated divers. Due to the distance between the SPA and the offshore Project, the southern migration direction of red-throated divers after the breeding season and that migration is most likely to occur in a coastal band from 0-20 km from shore, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Red-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Coll and Tiree SPA	Wintering: Great northern diver, Common eider	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (253 km) and the offshore export cable corridor (260 km) for designated wintering great northern diver. However, there is potential for disturbance from construction and decommissioning vessels to wintering great northern divers within the offshore export cable corridor during migration from breeding grounds in Greenland and Iceland. Migration of wintering eiders to this SPA is likely to result in negligible numbers passing through the offshore Project during migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Uncertain proportions of the wintering great northern diver population may migrate through the offshore export cable corridor. There is potential for disturbance to wintering great northern diver within the offshore export cable corridor during migration.
Cameron Reservoir SPA and Ramsar	Wintering: Pink-footed goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 261 km to the offshore export cable corridor and 288 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose during to migrate through the OAA and be affected by collision risk and barrier effects.
Glas Eileanan SPA	Breeding: Common tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (264 km) and offshore export cable corridor (262 km) for breeding common terns. Common terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding common terns are unlikely to migrate through the OAA and offshore export cable corridor.
Hermaness, Saxa Vord and Valla Field SPA	Breeding: Red-throated diver, Northern fulmar, Northern gannet, European shag, Great skua, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (257 km) and offshore export cable corridor (263 km) for designated breeding fulmar, gannet, kittiwake and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, gannet, kittiwake and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and gannet from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Kilpheder and Smerclate, South Uist SPA	Breeding: Corncrake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 264 km to the offshore export cable corridor and 249 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Leven SPA and Ramsar	Wintering: Great cormorant, Whooper swan, Pink-footed goose, Gadwall, Eurasian teal, Northern shoveler, Common pochard, Tufted duck, Common goldeneye	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 264 km to the offshore export cable corridor and 289 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, pink-footed goose, teal, pochard and tufted duck to migrate through the OAA and be affected by collision risk and barrier effects.
Firth of Forth SPA and Ramsar	Wintering: Red-throated diver, Great crested grebe, Slavonian grebe, Great cormorant, Pink-footed goose, Common shelduck, Eurasian wigeon, Mallard, Greater scaup, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 266 km to the offshore export cable corridor and 295 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds and waders during the non-breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	goldeneye, Red-breasted merganser, Eurasian oystercatcher, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Dunlin Passage: Sandwich tern				Passage Sandwich terns are unlikely to pass though the OAA and offshore export cable corridor during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose, wigeon, scaup, long-tailed duck, common scoter, velvet scoter, red-breasted merganser, oystercatcher, ringed plover, golden plover, grey plover, bar-tailed godwit, curlew, redshank and turnstone to migrate through the OAA and be affected by collision risk and barrier effects.
Coll SPA and Ramsar	Wintering: Barnacle goose, Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 268 km to the offshore export cable corridor and 261 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering barnacle goose and Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects
St Kilda SPA	Breeding: Northern fulmar, Manx shearwater, European storm-petrel, Leach's storm-petrel, Northern gannet, Great skua, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (250 km) and offshore export cable corridor (268 km) for designated breeding fulmar, Manx shearwater, storm-petrel, gannet, great skua, kittiwake and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, Manx shearwater, storm-petrel, gannet, great skua, kittiwake and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake, gannet and great skua from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Forth Islands SPA	Breeding: Northern gannet, Great cormorant, European shag, Lesser black-backed gull, Herring gull, Black-legged kittiwake, Sandwich tern, Roseate tern, Common tern, Arctic tern, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (301 km) and offshore export cable corridor (273 km) for designated breeding gannet and kittiwake. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds (except terns) to be disturbed by construction and decommissioning vessels. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding gannet and kittiwake from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake and gannet from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Eoligarry, Barra SPA	Breeding: Corncrake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 274 km to the offshore export cable corridor and 259 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects.
Coll (corncrake) SPA	Breeding: Corncrake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 279 km to the offshore export cable corridor and 272 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		
Treshnish Isles SPA	Breeding: European storm-petrel Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (275 km) and offshore export cable corridor (280 km) for designated breeding storm-petrel. There is potential for disturbance to this species from construction and decommissioning vessels during the breeding season and during migration. Construction and decommissioning vessels are unlikely to disturb designated barnacle geese either during the non-breeding season or during migration
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding storm-petrel from operation and maintenance vessels. Uncertain proportions of the European storm-petrel and the barnacle goose population may migrate through the OAA and be affected by disturbance and barrier effects.
Loch Lomond SPA and Ramsar	Wintering: Greenland white-fronted goose Permanent: Western capercaillie	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 283 km to the offshore export cable corridor and 299 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration. Capercaillie are resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Greenland white-fronted to migrate through the OAA and be affected by collision risk and barrier effects.
Sléibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast) SPA and Ramsar	Breeding: Eurasian oystercatcher, Ringed plover, Common redshank, Dunlin Wintering: Barnacle goose, Ringed plover, Ruddy turnstone, Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 290 km to the offshore export cable corridor and 282 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the breeding season, non-breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding oystercatcher, ringed plover and redshank as well as wintering barnacle goose, ringed plover, turnstone and Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.
Slamannan Plateau SPA	Wintering: Taiga bean goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	Taiga bean geese are unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Taiga bean geese are unlikely to migrate through the OAA and offshore export cable corridor.
Imperial Dock Lock, Leith SPA	Breeding: Common tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (317 km) and offshore export cable corridor (292 km) for breeding common terns. Common terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding common terns are unlikely to migrate through the OAA and offshore export cable corridor.
Inner Clyde Estuary SPA and Ramsar	Wintering: Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 295 km to the offshore export cable corridor and 310 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for designated wintering redshank to migrate through the OAA and be affected by collision risk and barrier effects. .

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Mingulay and Berneray SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (282 km) and offshore export cable corridor (296 km) for designated breeding fulmar, kittiwake and puffin. There is potential for disturbance to these species from construction and decommissioning vessels. During migration, there is potential for designated seabirds to be disturbed by construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar, kittiwake and puffin from operation and maintenance vessels. There is a potential collision risk for breeding kittiwake from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and could be affected by collision risk and barrier effects.
Tiree (corncrake) SPA	Breeding: Corncrake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 302 km to the offshore export cable corridor and 293 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects.
Black Cart SPA	Wintering: Whooper swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 304 km to the offshore export cable corridor and 323 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		
Knapdale Lochs SPA	Breeding: Black-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 305 km to the offshore export cable corridor and 312 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding black-throated diver. Black-throated divers breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast with many birds moving southwards from the Highlands to winter off SW Scotland and SE Scotland. Due to the distance between the SPA and the offshore Project and the southern migration direction of black-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Black-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Renfrewshire Heights SPA	Breeding: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 305 km to the offshore export cable corridor and 320 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
St Abb's Head to Fast Castle SPA	Breeding: European shag, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (337 km) and offshore export cable corridor (308 km) for all designated breeding seabird species. Proportions of seabird populations migrating through the OAA and offshore export cable corridor will be small relative to Biologically Defined Minimum Population Scales (BDMPS), therefore there is very limited potential for disturbance to these species from construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Due to distance which is beyond mean maximum foraging range (+ 1SD), there is no connectivity between the SPA and the offshore Project during the breeding season. Proportions of the seabird populations migrating through the OAA and offshore export cable corridor are small relative to BDMPS.
North Colonsay and Western Cliffs SPA	Breeding: Red-billed chough, Black-legged kittiwake, Common guillemot Wintering: Red-billed chough	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (337 km) and offshore export cable corridor (308 km) for all designated breeding seabird species. Proportions of seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to these species from construction and decommissioning vessels. Chough is a resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Due to distance which is beyond mean maximum foraging range (+ 1SD), there is no connectivity between the SPA and the offshore Project during the breeding season. Proportions of the seabird populations migrating through the OAA and offshore export cable corridor are small relative to BDMPS. Resident choughs will not pass through the OAA and offshore export cable corridor.
Fala Flow SPA and Ramsar	Wintering: Pink-footed goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 311 km to the offshore export cable corridor and 338 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose to migrate through the OAA and be affected by collision risk and barrier effects.
Gladhouse Reservoir SPA and Ramsar	Wintering: Pink-footed goose	Pre-construction, construction and decommissioning	Disturbance/displacement	No potential LSE concluded	SPA is within 315 km to the offshore export cable corridor and 341 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Indirect effects through effects on habitats and prey species.		Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed geese to migrate through the OAA and be affected by collision risk and barrier effects.
Westwater SPA and Ramsar	Wintering: Pink-footed goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 316 km to the offshore export cable corridor and 340 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated wintering pink-footed geese to migrate through the OAA and be affected by collision risk and barrier effects.
Oronsay and South Colonsay SPA	Breeding: Red-billed chough, Corncrake Wintering: Red-billed chough	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 302 km to the offshore export cable corridor and 293 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated corncrake during the breeding season or migration. Chough is a resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding corncrake to migrate through the OAA and be affected by collision risk and barrier effects. Resident choughs will not pass through the OAA and offshore export cable corridor.
Sound of Gigha SPA	Wintering: Great northern diver, Slavonian grebe, Common eider, Red-breasted merganser	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 321 km to the offshore export cable corridor and 328 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for wintering great northern diver, Slavonian grebe and red-breasted merganser to migrate through the OAA and be affected by collision risk and barrier effects.
Greenlaw Moor SPA and Ramsar	Wintering: Pink-footed goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 327 km to the offshore export cable corridor and 354 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose to migrate through the OAA and be affected by collision risk and barrier effects.
Northumbria Coast SPA and Ramsar	Breeding: Arctic tern, Little tern Wintering: Purple sandpiper, Ruddy turnstone	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 333 km to the offshore export cable corridor and 362 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding terns. Terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering purple sandpiper and turnstone to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Muirkirk and North Lowther Uplands SPA	Breeding: Hen harrier, Merlin, Peregrine falcon, European golden plover, Short-eared owl Wintering: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 333 km to the offshore export cable corridor and 354 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors or wildfowl during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for breeding and wintering hen harrier and wintering golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Northumberland Marine SPA	Breeding: Sandwich tern, Roseate tern, Common tern, Arctic tern, Little tern, Common guillemot, Atlantic puffin, Great cormorant, European shag, Black-headed gull, Black-legged kittiwake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (363 km) and offshore export cable corridor (333 km) for all designated breeding seabird species. Proportions of seabird populations migrating through the OAA and offshore export cable corridor will either be small relative to BDMPS or will not migrate through the offshore Project, therefore there is very limited potential for disturbance to these species from construction and decommissioning vessels. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Due to distance which is beyond mean maximum foraging range (+ 1SD), there is no connectivity between the SPA and the offshore Project during the breeding season. Proportions of the seabird populations migrating through the OAA and offshore export cable corridor are small relative to BDMPS.
Arran Moors SPA	Breeding: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 335 km to the offshore export cable corridor and 346 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Lindisfarne SPA and Ramsar	Breeding: Roseate tern, Little tern Wintering: Whooper swan, Greylag goose, Common shelduck, Eurasian wigeon, Common eider, Long-tailed duck, Common scoter, Red-breasted merganser, Ringed plover, European golden plover, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, Dunlin, Light-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 336 km to the offshore export cable corridor and 365 km to the OAA and is beyond foraging range + 1SD for designated breeding terns. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, greylag goose, wigeon, long-tailed duck, common scoter, red-breasted merganser, ringed plover, golden plover, grey plover, sanderling, bar-tailed godwit, redshank and light bellied goose to migrate through the OAA and be affected by collision risk and barrier effects.
Gruinart Flats, Islay SPA and Ramsar	Breeding: Red-billed chough Wintering: Barnacle goose, Red-billed chough, Greenland white-fronted goose Passage: Light-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 338 km to the offshore export cable corridor and 339 km to the OAA. Chough is a resident species and will not pass through the OAA and offshore export cable corridor. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering barnacle goose, Greenland white-fronted goose and passage light-bellied brent goose to migrate through the OAA and be affected by collision risk and barrier effects. Choughs will not pass through the OAA and offshore export cable corridor.
Kintyre Goose Roosts SPA and Ramsar	Wintering: Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 340 km to the offshore export cable corridor and 348 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.
Rinns of Islay SPA and Ramsar	Breeding: Common scoter, Hen harrier, Corncrake, Red-billed chough Wintering: Red-billed chough, Greenland white-fronted goose Permanent: Whooper swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 341 km to the offshore export cable corridor and 342 km to the OAA. Resident chough will not pass through the OAA and offshore export cable corridor. Construction and decommissioning vessels are unlikely to disturb designated raptors and wildfowl during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding common scoter, hen harrier and corncrake as well as wintering Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.
Din Moss - Hoselaw Loch SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 346 km to the offshore export cable corridor and 374 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose and greylag goose to migrate through the OAA and be affected by collision risk and barrier effects.
Holburn Lake and Moss SPA and Ramsar	Wintering: Greylag goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 348 km to the offshore export cable corridor and 377 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering greylag goose to migrate through the OAA and be affected by collision risk and barrier effects.
Bridgend Flats, Islay SPA and Ramsar	Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 348 km to the offshore export cable corridor and 350 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated barnacle geese either during the non-breeding season or during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	Uncertain proportions of the barnacle goose population may migrate through the OAA and could potentially be affected by collision risk and barrier effects.
Farne Islands SPA	Breeding: Sandwich tern, Roseate tern, Common tern, Arctic tern, Common guillemot, Atlantic puffin, Great cormorant, European shag, Black-legged kittiwake	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (382 km) and offshore export cable corridor (352 km) for designated breeding seabirds. Breeding terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor. The proportion of the seabird population migrating through the OAA and offshore export cable corridor will be small relative to BDMPS.
Laggan, Islay SPA	Wintering: Barnacle goose, Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 352 km to the offshore export cable corridor and 354 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering barnacle goose and Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.
Eilean na Muice Duibhe (Duich Moss) SPA and Ramsar	Wintering: Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 352 km to the offshore export cable corridor and 355 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Greenland white-fronted geese to migrate through the OAA and be affected by collision risk and barrier effects.
The Oa SPA	Breeding: Red-billed chough	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 360 km to the offshore export cable corridor and 363 km to the OAA. Chough is a resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Resident choughs will not pass through the OAA and offshore export cable corridor.
Langholm - Newcastleton Hills SPA	Breeding: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 374 km to the offshore export cable corridor and 400 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Ailsa Craig SPA	Breeding: Northern gannet, Lesser black-backed gull, Herring gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (392 km) and offshore export cable corridor (378 km) for designated breeding gannet. There is potential for disturbance to this species from construction and decommissioning vessels. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding lesser black-backed gull, herring gull, kittiwake and guillemot. The proportion of these seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding gannet from operation and maintenance vessels. There is a potential collision risk for breeding gannet from operational turbines. Uncertain proportions of the seabird populations may migrate through the OAA and be affected by disturbance and barrier effects.
Coquet Island SPA	Breeding: Sandwich tern, Roseate tern, Common tern, Arctic tern, Atlantic puffin, Black-headed gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (415 km) and offshore export cable corridor (386 km) for designated breeding seabird species. Breeding terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Castle Loch, Lochmaben SPA and Ramsar	Wintering: Pink-footed goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 386 km to the offshore export cable corridor and 409 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose to migrate through the OAA and be affected by collision risk and barrier effects.
Loch Ken and River Dee Marshes SPA and Ramsar	Wintering: Greylag goose, Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 392 km to the offshore export cable corridor and 412 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering greylag goose and Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.
Rathlin Island SPA	Breeding: Peregrine falcon, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (399 km) and offshore export cable corridor (393 km) for all designated breeding seabird species including: kittiwake, guillemot and razorbill. The proportion of these seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated species.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Glen App and Galloway Moors SPA	Breeding: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 396 km to the offshore export cable corridor and 411 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Solway Firth SPA and Ramsar	Wintering: Red-throated diver, Great cormorant, Whooper swan, Pink-footed goose, Barnacle goose, Common shelduck, Eurasian teal, Northern pintail, Northern shoveler, Greater scaup, Common scoter, Common goldeneye, Goosander, Eurasian oystercatcher, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Black-headed gull, Common gull, Herring gull, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 397 km to the offshore export cable corridor and 419 km to the OAA. The proportion of these seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, pink-footed goose, barnacle goose, teal, pintail, scaup, common scoter, oystercatcher, golden plover, grey plover, sanderling, bar-tailed godwit, curlew, redshank and turnstone as well as passage ringed plover to migrate through the OAA and be affected by collision risk and barrier effects. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated seabird species.
Sheep Island SPA	Breeding: Great cormorant	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 405 km to the offshore export cable corridor and 409 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding cormorant. Cormorants breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast. Due to the distance between the SPA and the offshore Project, this species is unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Cormorants are unlikely to migrate through the OAA and offshore export cable corridor.
Antrim Hills SPA	Breeding: Hen harrier, Merlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 406 km to the offshore export cable corridor and 412 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
North Pennine Moors SPA	Breeding: Hen harrier, Merlin, Peregrine falcon, European golden plover	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 412 km to the offshore export cable corridor and 439 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Loch of Inch and Torrs Warren SPA and Ramsar	Wintering: Hen harrier, Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 417 km to the offshore export cable corridor and 432 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier and Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Indirect effects through effects on habitats and prey species Collision risk Barrier effect		
Garron Plateau Ramsar	Breeding: Golden plover	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 419 km to the offshore export cable corridor and 426 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Lough Foyle SPA and Ramsar	Wintering: Whooper swan, Bar-tailed godwit, Light-bellied brent goose, Red-throated diver, Great crested grebe, Bewick's swan, Greylag goose, Shelduck, Eurasian teal, Mallard, Eurasian wigeon, Common eider, Red-breasted merganser, Oystercatcher, European golden plover, Grey plover, Northern lapwing, Red knot, Dunlin, Eurasian curlew, Common redshank, Common greenshank, Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 427 km to the offshore export cable corridor and the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wildfowl and waders to migrate through the OAA and be affected by collision risk and barrier effects.
Larne Lough SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Roseate tern, Common tern Wintering: Light-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 436 km to the offshore export cable corridor and 445 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated breeding seabird species including: Mediterranean gull, Sandwich tern, Roseate tern, Common tern. The proportion of designated seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering light-bellied brent goose to migrate through the OAA and be affected by collision risk and barrier effects.
Copeland Islands SPA	Breeding: Manx shearwater, Arctic tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (459 km) and offshore export cable corridor (471 km) for designated breeding Manx shearwater. There is potential for disturbance to this species from construction and decommissioning vessels during the breeding season and during migration. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding Arctic tern. Terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Manx shearwater from operation and maintenance vessels. Uncertain proportions of the Manx shearwater population may migrate through the OAA and could be affected by disturbance and barrier effects.
Belfast Lough SPA and Ramsar	Breeding: Common tern, Arctic tern Wintering: Bar-tailed godwit, Common redshank, Black-tailed godwit	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 448 km to the offshore export cable corridor and 459 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding common tern and Arctic tern. Breeding terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for wintering bar-tailed godwit, redshank and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Belfast Lough Open Water SPA	Wintering: Great crested grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 449 km to the offshore export cable corridor and 459 km to the OAA. Migration of wintering great crested grebes to this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Great crested grebes are unlikely to migrate through the OAA and offshore export cable corridor.
Outer Ards SPA and Ramsar	Breeding: Arctic tern Wintering: Ringed plover, European golden plover, Ruddy turnstone, Light-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 449 km to the offshore export cable corridor and 461 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding Arctic tern. Breeding terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering ringed plover, golden plover, turnstone and light-bellied brent goose to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Teesmouth and Cleveland Coast SPA and Ramsar	Breeding: Pied avocet, Common tern, Little tern Wintering: Red knot, Ruff, Common redshank, Sandwich tern, Gadwall, Northern shoveler, Sanderling, Eurasian wigeon, Northern lapwing, Herring gull, Black-headed gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 452 km to the offshore export cable corridor and 482 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding terns and there is very limited potential for disturbance to these species from construction and decommissioning vessels. Wintering Sandwich terns are unlikely to migrate through the offshore export cable corridor and OAA. SPAs with designated Sandwich terns are located south of the offshore Project and as breeding terns migrate south after breeding, connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wildfowl and waders to migrate through the OAA and be affected by collision risk and barrier effects. Breeding avocet and wintering knot and ruff are unlikely to migrate through the OAA and offshore export cable corridor.
Lough Neagh and Lough Beg SPA and Ramsar	Breeding: Common tern Wintering: Bewick's swan, Whooper swan, Common pochard, Tufted duck, Common goldeneye, Little grebe, Great crested grebe, Great cormorant, Greylag goose, Shelduck, Eurasian wigeon, Gadwall, Eurasian teal, Mallard, Northern shoveler, Greater Scaup, Common coot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 452 km to the offshore export cable corridor and 457 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding common tern. Breeding terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wildfowl to migrate through the OAA and be affected by collision risk and barrier effects.
Strangford Lough SPA and Ramsar	Breeding: Sandwich tern, Common tern, Arctic tern	Pre-construction, construction and decommissioning	Disturbance/displacement	No potential LSE concluded	SPA is within 462 km to the offshore export cable corridor and 473 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	Wintering: Red knot, Common redshank, Light-bellied brent goose, Light-bellied brent goose, Bar-tailed godwit, Black-tailed godwit, Common coot, Eurasian curlew, Dunlin, Common eider, Gadwall, Great crested grebe, Greylag goose, Common greenshank, Common goldeneye, European golden plover, Grey plover, Northern lapwing, Mallard, Oystercatcher, Northern pintail, Red-breasted merganser, Common ringed plover, Shelduck, Northern shoveler, Eurasian teal, Ruddy turnstone, Eurasian wigeon		Indirect effects through effects on habitats and prey species.		SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding Sandwich tern, common tern and Arctic tern. Breeding terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering waders and wildfowl to migrate through the OAA and be affected by collision risk and barrier effects.
Morecambe Bay and Duddon Estuary SPA and Ramsar	Breeding: Lesser black-backed gull, Herring gull, Sandwich tern, Common tern, Little tern Wintering: Little egret, Whooper swan, European golden plover, Ruff, Bar-tailed godwit, Mediterranean gull, Great egret, Eurasian spoonbill, Brent goose, Eurasian wigeon, Eurasian teal, Teal, Mallard, Ring-necked duck, Common eider, Common goldeneye, Red-breasted merganser, Great cormorant, Northern lapwing, Little stint, Spotted redshank, Common greenshank, Black-headed gull, Common gull, Herring gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 470 km to the offshore export cable corridor and 493 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated seabird species including: breeding lesser black-backed gull, herring gull, Sandwich tern, common tern and little tern as well as wintering Mediterranean gull. There is very limited potential for disturbance to these species from construction and decommissioning vessels. The proportion of the passage lesser black-backed gull population migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
	Passage: Pink-footed goose, Common shelduck, Northern pintail, Eurasian oystercatcher, Ringed plover, Grey plover, Red knot, Sanderling, Eurasian curlew, Common redshank, Ruddy turnstone, Lesser black-backed gull, Black-tailed godwit, Dunlin	Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, golden plover and bar-tailed godwit (Icelandic race) as well as passage pink-footed goose, pintail, oystercatcher, ringed plover, grey plover, sanderling, curlew, redshank, turnstone and black tailed godwit to migrate through the OAA and be affected by collision risk and barrier effects. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated species.
North York Moors SPA	Breeding: Merlin, European golden plover	Pre-construction, construction and decommissioning	Disturbance/displacement	No potential LSE concluded	SPA is within 482 km to the offshore export cable corridor and 512 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Indirect effects through effects on habitats and prey species.		Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding golden to migrate through the OAA and be affected by collision risk and barrier effects.
Leighton Moss SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 495 km to the offshore export cable corridor and 520 km to the OAA. Migration of breeding bittern and marsh harrier to this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Bittern and marsh harrier are unlikely to migrate through the OAA and offshore export cable corridor.
Killough Bay SPA and Ramsar	Wintering: Light-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 496 km to the offshore export cable corridor and 508 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering light-bellied brent goose to migrate through the OAA and be affected by collision risk and barrier effects.
Bowland Fells SPA	Breeding: Hen harrier, Merlin, Lesser black-backed gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 510 km to the offshore export cable corridor and 535 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding lesser black-backed gull and the proportion of lesser black-backed gull

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					population migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Liverpool Bay / Bae Lerpwl SPA	Breeding: Common tern, Little tern Wintering: Red-throated diver, Common scoter, Little gull, Red-breasted merganser, Great cormorant, Black-headed gull, Common gull, Common eider, Northern Fulmar, Great black-backed gull, Great crested grebe, Common guillemot, Northern gannet, Atlantic puffin, Herring gull, Black-legged kittiwake, Lesser black-backed gull, Black-throated diver, European shag, Razorbill, Velvet scoter	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within 511km to the export cable corridor and 534km to the OAA. During migration, there is potential for designated wintering fulmar to be disturbed by construction and decommissioning vessels. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding common tern, little tern as well as wintering red-throated diver and little gull. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to wintering fulmar from operation and maintenance vessels. There is limited potential for designated wintering common scoter to migrate through the OAA and be affected by collision risk and barrier effects. The proportion of other seabirds migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated seabird species. Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor.
Slieve Beagh - Mullaghfad – Lisnaskea SPA	Breeding: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 514 km to the offshore export cable corridor and 517 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Pettigoe Plateau SPA and Ramsar	Breeding: European golden plover	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 520 km to the offshore export cable corridor and 517 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Carlingford Lough SPA and Ramsar	Breeding: Sandwich tern, Common tern Wintering: Light-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 525 km to the offshore export cable corridor and 534 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding terns. Breeding terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering light-bellied brent goose to migrate through the OAA and be affected by collision risk and barrier effects. Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor.
Flamborough and Filey Coast SPA	Breeding: Northern gannet, Black-legged kittiwake, Common guillemot, Razorbill, Northern Fulmar	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (556 km) and offshore export cable corridor (526 km) for designated breeding fulmar. There is potential for disturbance to this species from construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					During migration, there is potential for designated fulmar to be disturbed by construction and decommissioning vessels. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for breeding gannet, kittiwake, guillemot and razorbill. The proportion of these seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding fulmar from operation and maintenance vessels. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb other designated seabird species.
South Pennine Moors Phase 2 SPA	Breeding: Merlin, European golden plover, Short-eared owl	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 532 km to the offshore export cable corridor and 559 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Upper Lough Erne SPA and Ramsar	Wintering: Whooper swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 534 km to the offshore export cable corridor and the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Whooper to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Ribble and Alt Estuaries SPA and Ramsar	Breeding: Ruff, Black-headed gull, Lesser black-backed gull, Common tern Wintering: Great cormorant, Bewick's swan, Whooper swan, Pink-footed goose, Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Greater scaup, Common scoter, Eurasian oystercatcher, European golden plover, Grey plover, Northern lapwing, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover, Sanderling, Whimbrel, Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 538 km to the offshore export cable corridor and 562 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated seabird species including: breeding black-headed gull, lesser black-backed gull and common tern. There is very limited potential for disturbance to these species from construction and decommissioning vessels. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, golden plover and bar-tailed godwit as well as passage pink-footed goose, pintail, oystercatcher, ringed plover, grey plover, sanderling, curlew, redshank, turnstone and black tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated species.
Irish Sea Front SPA	Breeding: Manx shearwater	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (559 km) and offshore export cable corridor (542 km) for designated breeding Manx shearwater. There is potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Manx shearwater from operation and maintenance vessels. Uncertain proportions of the Manx shearwater population may migrate through the OAA and could be affected by disturbance and barrier effects.
Lower Derwent Valley SPA and Ramsar	Breeding: Northern shoveler Wintering: Bewick's swan, Eurasian wigeon, Eurasian teal, European golden plover, Ruff	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 546km to the offshore export cable corridor and 575 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the breeding season, non-breeding season or migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal and golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Greater Wash SPA	Breeding: Sandwich tern, Common tern, Little tern Wintering: Red-throated diver, Common scoter, Little gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 554 km to the offshore export cable corridor and 585 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding Sandwich tern, common tern and little tern as well as wintering red-throated diver, black-throated diver and little gull. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering common scoter to migrate through the OAA and be affected by collision risk and barrier effects. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated species.
Martin Mere SPA and Ramsar	Wintering: Bewick's swan, Whooper swan, Pink-footed goose, Eurasian wigeon, Northern pintail	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 555 km to the offshore export cable corridor and 579 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, pink-footed goose, wigeon and pintail to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Anglesey Terns / Morwenoliaid Ynys Môn SPA	Breeding: Sandwich tern, Roseate tern, Common tern, Arctic tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (583 km) and offshore export cable corridor (564 km) for three designated breeding tern species. Breeding terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor.
Hornsea Mere SPA	Breeding: Mute swan Wintering: Gadwall	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 565 km to the offshore export cable corridor and 596 km to the OAA. Migration of breeding mute swan and wintering gadwall to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding mute swan and wintering gadwall are unlikely to migrate through the OAA and offshore export cable corridor.
Peak District Moors (South Pennine Moors Phase 1) SPA	Breeding: Merlin, European golden plover, Short-eared owl	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 567 km to the offshore export cable corridor and 594 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Humber Estuary SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier, Pied avocet, Little tern	Pre-construction, construction and decommissioning	Disturbance/displacement	No potential LSE concluded	SPA is within 569 km to the offshore export cable corridor and 599 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	Wintering: Great bittern, Common shelduck, Eurasian wigeon, Eurasian teal, Mallard, Common pochard, Greater scaup, Common goldeneye, Hen harrier, Eurasian oystercatcher, Pied avocet, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Common greenshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose Passage: Ringed plover, Grey plover, Red knot, Sanderling, Ruff, Whimbrel, Common redshank, Black-tailed godwit, Dunlin		Indirect effects through effects on habitats and prey species.		Breeding terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated raptors, waders and wildfowl during the breeding season, non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential designated wintering wigeon, teal, pochard, scaup, hen harrier, oystercatcher, ringed plover, golden plover, grey plover, sanderling, bar-tailed godwit, curlew, redshank, greenshank, turnstone and black-tailed godwit (Icelandic race) as well as passage ringed plover, grey plover, sanderling, whimbrel and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Mersey Narrows and North Wirral Foreshore SPA and Ramsar	Breeding: Common tern Wintering: Great cormorant, Eurasian oystercatcher, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, red knot, Dunlin Passage: Little gull, Common tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 572 km to the offshore export cable corridor and 596 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding and passage seabirds. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering oystercatcher, grey plover, sanderling, bar-tailed godwit and redshank to migrate through the OAA and be affected by collision risk and barrier effects. The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated species.
Thorne and Hatfield Moors SPA	Breeding: European nightjar	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 576 km to the offshore export cable corridor and 605 km to the OAA. Migration of breeding nightjar from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE concluded	Breeding nightjars are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		
The Dee Estuary SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Common shelduck, Eurasian teal, Northern pintail, Eurasian oystercatcher, Grey plover, Red knot, Bar-tailed godwit, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Common redshank, Sandwich tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 580km to the offshore export cable corridor and 603 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding and passage terns. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering teal, pintail, oystercatcher, grey plover, bar-tailed godwit, curlew, redshank and black-tailed godwit (Icelandic race) as well as passage redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Mersey Estuary SPA and Ramsar	Wintering: Great crested grebe, Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, European golden plover, Grey plover, Northern lapwing, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover, Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 582 km to the offshore export cable corridor and 606 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal, pintail, golden plover, grey plover, curlew, redshank and black-tailed godwit (Icelandic race) as well as passage ringed plover and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Ynys Seiriol / Puffin Island SPA	Breeding: Great cormorant	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 587 km to the offshore export cable corridor and 608 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding cormorant. Cormorants breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast. Due to the distance between the SPA and the offshore Project, this species is unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Cormorants are unlikely to migrate through the OAA and offshore export cable corridor.
Rostherne Mere Ramsar	Wintering: Northern shoveler, Pochard	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 588 km to the offshore export cable corridor and 614 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pochard to migrate through the OAA and be affected by collision risk and barrier effects.
Traeth Lafan/ Lavan Sands, Conway Bay SPA	Wintering: Red-breasted merganser, Eurasian oystercatcher, Eurasian curlew, Common redshank Passage: Great crested grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 592 km to the offshore export cable corridor and 613 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering red-breasted merganser, oystercatcher, curlew and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Midland Meres and Mosses Phase 2 Ramsar	Passage: Northern shoveler Wintering: Cormorant, great bittern, water rail	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 600 km to the offshore export cable corridor and 625 km to the OAA and is beyond foraging range (+ 1SD) for designated wintering cormorant. Cormorants breeding in Scotland are thought to migrate only short distances to winter off the Scottish coast. Due to the distance between the SPA and the offshore Project, this species is unlikely to migrate through the OAA and offshore export cable corridor. Migration of passage shoveler as well as wintering cormorant, bittern and water rail to and from this SPA are likely to result in

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Cormorants, bittern and water rail are unlikely to migrate through the OAA and offshore export cable corridor.
Migneint-Arenig-Dduallt SPA	Breeding: Hen harrier, Merlin, Peregrine falcon	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 617 km to the offshore export cable corridor and 639 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Berwyn SPA	Breeding: Red kite, Hen harrier, Merlin, Peregrine falcon	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 626 km to the offshore export cable corridor and 648 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated breeding hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Northern Cardigan Bay / Gogledd Bae Ceredigion SPA	Wintering: Red-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 632 km to the offshore export cable corridor and 653 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding red-throated divers. Due to the distance between the SPA and the offshore Project and the southern migration direction of red-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Red-throated divers are unlikely to migrate through the OAA and offshore export cable corridor.
Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA	Breeding: Manx shearwater, Red-billed chough Wintering: Red-billed chough	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (660 km) and offshore export cable corridor (642 km) for designated breeding Manx shearwater. There is potential for disturbance to this species from construction and decommissioning vessels. Chough is a resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Manx shearwater from operation and maintenance vessels. Uncertain proportions of the Manx shearwater population may migrate through the OAA and be affected by disturbance and barrier effects.
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal SPA	Breeding: Red-billed chough Wintering: Red-billed chough	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 645 km to the offshore export cable corridor and 665 km to the OAA. Chough is a resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Resident choughs will not pass through the OAA and offshore export cable corridor.
Gibraltar Point SPA and Ramsar	Breeding: Little tern Wintering: Grey plover, Sanderling, Bar-tailed godwit	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 582 km to the offshore export cable corridor and 606 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding little tern. There is very limited potential for disturbance to this species from construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering grey plover, sanderling and bar-tailed godwit to migrate through the OAA and be affected by collision risk and barrier effects.
The Wash SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Bewick's swan, Pink-footed goose, Common shelduck, Eurasian wigeon, Gadwall, Northern pintail, Common scoter, Common goldeneye, Eurasian oystercatcher, Grey plover, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 662 km to the offshore export cable corridor and 693 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding common tern and little tern. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose, wigeon, pintail, common scoter, oystercatcher, grey plover, sanderling, bar-tailed godwit, curlew, redshank, turnstone and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Dyfi Estuary / Aber Dyfi SPA	Wintering: Greenland white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 670 km to the offshore export cable corridor and 691 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season or migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Greenland white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Cors Fochno and Dyfi Ramsar	Passage: Common greenshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 671 km to the offshore export cable corridor and 692 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waders during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for passage greenshank to migrate through the OAA and be affected by collision risk and barrier effects.
North Norfolk Coast SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier, Pied avocet, Sandwich tern, Common tern, Little tern Wintering: Pink-footed goose, Eurasian wigeon, Pied avocet, Red knot, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 679 km to the offshore export cable corridor and 710 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding common tern and little tern. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated raptors and waterbirds during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering pink-footed goose and wigeon to migrate through the OAA and be affected by collision risk and barrier effects.
Rutland Water SPA and Ramsar	Wintering: Great crested grebe, Mute swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern shoveler, Tufted duck, Common goldeneye, Goosander, Common coot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 686 km to the offshore export cable corridor and 715 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season and migration
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal and tufted duck to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Collision risk Barrier effect		
Elenydd – Mallaen SPA	Breeding: Red kite, Merlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 687 km to the offshore export cable corridor and 709 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors during the breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Red kite and merlin are unlikely to migrate through the OAA and offshore export cable corridor.
Cors Caron Ramsar	Wintering: Whooper swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 701 km to the offshore export cable corridor and 723 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the nonbreeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Whooper to migrate through the OAA and be affected by collision risk and barrier effects.
Nene Washes SPA and Ramsar	Breeding: Gadwall, Garganey, Northern shoveler, Black-tailed godwit Wintering: Bewick's swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern pintail, Northern shoveler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 706 km to the offshore export cable corridor and 735 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal and pintail to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Breckland SPA	Breeding: Stone-curlew, European nightjar, Wood lark	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 714 km to the offshore export cable corridor and 746 km to the OAA. Migration of breeding stone curlew, nightjar and wood lark from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding stone curlew, nightjar and wood lark is unlikely to migrate through the OAA and offshore export cable corridor.
Upper Nene Valley Gravel Pits SPA and Ramsar	Wintering: Great crested grebe, Great cormorant, Great bittern, Eurasian wigeon, Gadwall, Mallard, Northern shoveler, Common pochard, Tufted duck, Common coot, European golden plover, Northern lapwing	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 716 km to the offshore export cable corridor and 745 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, tufted duck, pochard and golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Ouse Washes SPA and Ramsar	Breeding: Gadwall, Mallard, Garganey, Northern shoveler, Black-tailed godwit Wintering: Great cormorant, Mute swan, Bewick's swan, Whooper swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern pintail, Northern shoveler, Common pochard, Tufted duck, Hen harrier, Common coot, Ruff	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 718 km to the offshore export cable corridor and 748 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors, waterbirds and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, wigeon, teal, pintail, pochard, tufted duck and hen harrier to migrate through the OAA and offshore export cable corridor.
Broadland SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier	Pre-construction, construction and decommissioning	Disturbance/displacement	No potential LSE concluded	SPA is within 724 km to the offshore export cable corridor and 757 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	Wintering: Bewick's swan, Whooper swan, Eurasian wigeon, Gadwall, Northern shoveler, Hen harrier, Ruff		Indirect effects through effects on habitats and prey species.		Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering whooper swan, wigeon and hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Great Yarmouth North Denes SPA	Breeding: Little tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (731 km) and offshore export cable corridor (763 km) for three designated breeding little tern. Breeding terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor.
Outer Thames Estuary SPA	Breeding: Common tern, Little tern Wintering: Red-throated diver	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 632 km to the offshore export cable corridor and 653 km to the OAA and is beyond foraging range (+ 1SD) for designated breeding terns and wintering red-throated divers. Due to the distance between the SPA and the offshore Project and the southern migration direction of red-throated divers after the breeding season, this species is unlikely to migrate through the OAA and offshore export cable corridor. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding common tern and little tern. There is very limited potential for disturbance to these species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE concluded	Red-throated divers and terns are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Breydon Water SPA and Ramsar	Breeding: Common tern Wintering: Bewick's swan, Pied avocet, European golden plover, Northern lapwing Passage: Ruff	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 746 km to the offshore export cable corridor and 778 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding common tern. There is very limited potential for disturbance to this species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Walmore Common SPA and Ramsar	Wintering: Bewick's swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 757 km to the offshore export cable corridor and 782 km to the OAA. Migration of wintering Bewick's swans to this SPA are likely to result in negligible numbers passing through the offshore Project during migration, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Bewick's swans are unlikely to migrate through the OAA and offshore export cable corridor.
Severn Estuary SPA and Ramsar	Wintering: Bewick's swan, Common shelduck, Gadwall, Common redshank, Greater white-fronted goose, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 763 km to the offshore export cable corridor and 788 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering redshank and greater white-fronted geese to migrate through the OAA and be affected by collision risk and barrier effects.
Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro SPA	Breeding: Manx shearwater, European storm-petrel, Lesser black-backed gull, Atlantic puffin, Short-eared owl, Red-billed chough	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE cannot be concluded	SPA is within mean maximum foraging range (+ 1SD) to the OAA (780 km) and offshore export cable corridor (764 km) for designated breeding Manx shearwater. There is potential for disturbance to this species from construction and decommissioning vessels. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all other designated seabird species including: storm-petrel, lesser black-backed gull and puffin. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Chough is a resident species and will not pass through the OAA and offshore export cable corridor.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for disturbance to breeding Manx shearwater from operation and maintenance vessels. Uncertain proportions of the Manx shearwater population may migrate through the and could be affected by disturbance and barrier effects. The proportion of other designated seabird populations (storm-petrel, lesser black-backed gull and puffin) migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb these other designated seabird species.
Bae Caerfyrddin/ Carmarthen Bay SPA	Wintering: Common scoter	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 765 km to the offshore export cable corridor and 784 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for designated wintering common scoter to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Benacre to Easton Bavents SPA	Breeding: Great bittern, Eurasian marsh harrier, Little tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 769 km to the offshore export cable corridor and 801 km to the OAA. Migration of breeding bittern, marsh harrier and little tern from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding bittern, marsh harrier and little tern are unlikely to migrate through the OAA and offshore export cable corridor.
Burry Inlet SPA and Ramsar	Wintering: Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Northern shoveler, Eurasian oystercatcher, Grey plover, Red knot, Eurasian curlew, Common redshank, Ruddy turnstone, Dunlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 769 km to the offshore export cable corridor and 790 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal, pintail, oystercatcher, grey plover, curlew, redshank and turnstone to migrate through the OAA and be affected by collision risk and barrier effects.
Grassholm SPA	Breeding: Northern gannet	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (785 km) and offshore export cable corridor (769 km) for breeding gannet. The proportion of the gannet population migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	The proportion of the gannet population migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from operation and maintenance vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Minsmere-Walberswick SPA and Ramsar	Breeding: Great bittern, Gadwall, Eurasian teal, Northern shoveler, Pied avocet, Little tern, European nightjar, Eurasian marsh harrier Wintering: Gadwall, Northern shoveler, Hen harrier, Greater white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 773 km to the offshore export cable corridor and 805 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds, nightjar and raptors during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier and greater white-fronted goose to migrate through the OAA and be affected by collision risk and barrier effects.
Sandlings SPA	Breeding: European nightjar, Wood lark	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 787 km to the offshore export cable corridor and 818 km to the OAA. Migration of breeding nightjar and wood lark from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding nightjar and wood lark are unlikely to migrate through the OAA and offshore export cable corridor.
Alde-Ore Estuary SPA and Ramsar	Breeding: Eurasian marsh harrier, Pied avocet, Lesser black-backed gull, Sandwich tern, Little tern Wintering: Pied avocet, Ruff, Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 788 km to the offshore export cable corridor and 820 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated seabird species including: lesser black-backed gull, Sandwich tern and little tern. There is very limited potential for disturbance to these species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for designated wintering redshank to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Deben Estuary SPA and Ramsar	Wintering: Pied avocet, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 790 km to the offshore export cable corridor and 821 km to the OAA. Migration of wintering avocet and dark-bellied brent goose is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering avocet and dark-bellied brent goose are unlikely to migrate through the OAA and offshore export cable corridor.
Lee Valley SPA and Ramsar	Wintering: Great bittern, Gadwall, Northern shoveler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 792 km to the offshore export cable corridor and 821 km to the OAA. Migration of wintering bittern, gadwall and shoveler to this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering bittern, gadwall and shoveler are unlikely to migrate through the OAA and offshore export cable corridor.
Stour and Orwell Estuaries SPA and Ramsar	Breeding: Pied avocet Wintering: Great crested grebe, Great cormorant, Mute swan, Common shelduck, Eurasian wigeon, Gadwall, Northern pintail, Greater scaup, Common goldeneye, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Eurasian curlew, Common redshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose Passage: Ringed plover, Common redshank	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 793 km to the offshore export cable corridor and 824 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, pintail, scaup, ringed plover, golden plover, grey plover, curlew, redshank, turnstone and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Abberton Reservoir SPA and Ramsar	Breeding: Great cormorant Wintering: Great crested grebe, Mute swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern shoveler, Common pochard, Tufted duck, Common goldeneye, Common coot	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 806 km to the offshore export cable corridor and 837 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated cormorant and waterbirds during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal, pochard and tufted duck to migrate through the OAA and be affected by collision risk and barrier effects.
Hamford Water SPA and Ramsar	Breeding: Little tern Wintering: Common shelduck, Eurasian teal, Pied avocet, Ringed plover, Grey plover, Common redshank, Black-tailed godwit, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 807 km to the offshore export cable corridor and 838 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding little tern. There is very limited potential for disturbance to this species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering teal, ringed plover, grey plover, redshank and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar	Breeding: Common pochard, Ringed plover, Little tern Wintering: Hen harrier, Common redshank, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 807 km to the offshore export cable corridor and 838 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding little tern. There is very limited potential for disturbance to this species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season and migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Chew Valley Lake SPA	Wintering: Northern shoveler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 809 km to the offshore export cable corridor and 833 km to the OAA. Migration of wintering shoveler to this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering shoveler are unlikely to migrate through the OAA and offshore export cable corridor.
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar	Breeding: Common pochard, Ringed plover, Little tern Wintering: Hen harrier, Ringed plover, Grey plover, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 810 km to the offshore export cable corridor and 841 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding little tern. There is very limited potential for disturbance to this species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier, ringed plover, grey plover and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar	Wintering: Hen harrier, Grey plover, Red knot, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 816 km to the offshore export cable corridor and 847 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier and grey plover to migrate through the OAA and be affected by collision risk and barrier effects.
South West London Waterbodies SPA and Ramsar	Wintering: Gadwall, Northern shoveler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 818 km to the offshore export cable corridor and 846 km to the OAA. Migration of wintering gadwall and shoveler to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering gadwall and shoveler are unlikely to migrate through the OAA and offshore export cable corridor.
Salisbury Plain SPA	Breeding: Eurasian hobby, Common quail, Stone-curlew Wintering: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 819 km to the offshore export cable corridor and 845 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Crouch and Roach Estuaries (Mid-Essex Coast Stage 3) SPA and Ramsar	Wintering: Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 820 km to the offshore export cable corridor and 850 km to the OAA. Migration of wintering dark-bellied brent goose to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering dark-bellied brent geese are unlikely to migrate through the OAA and offshore export cable corridor.
Somerset Levels and Moors SPA and Ramsar	Wintering: Bewick's swan, Eurasian teal, European golden plover, Northern lapwing	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 823 km to the offshore export cable corridor and 851 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering teal and golden plover to migrate through the OAA and be affected by collision risk and barrier effects.
Thames Basin Heaths SPA	Breeding: European nightjar, Wood lark, Dartford warbler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 824 km to the offshore export cable corridor and 851 km to the OAA. Construction and decommissioning vessels are unlikely to disturb breeding nightjar, wood lark and Dartford during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding nightjar, wood lark and Dartford warbler are unlikely to migrate through the OAA and offshore export cable corridor.
Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar	Breeding: Pied avocet, Ringed plover, Sandwich tern, Common tern, Little tern Wintering: Hen harrier, Eurasian oystercatcher, Pied avocet, Grey plover, Red knot, Bar-tailed godwit, Common redshank, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 829 km to the offshore export cable corridor and 860 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding tern. There is very limited potential for disturbance to terns from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the non-breeding season and migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier, oystercatcher, grey plover, bar-tailed godwit and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
Benfleet and Southend Marshes SPA and Ramsar	Wintering: Ringed plover, Grey plover, Red knot, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 831 km to the offshore export cable corridor and 861 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering ringed plover and grey plover to migrate through the OAA and be affected by collision risk and barrier effects.
Thames Estuary and Marshes SPA and Ramsar	Wintering: Hen harrier, Pied avocet, Grey plover, Red knot, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 832 km to the offshore export cable corridor and 862 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier, grey plover, redshank, black-tailed godwit (Icelandic race) and passage ringed plover to migrate through the OAA and be affected by collision risk and barrier effects.
Porton Down SPA	Breeding: Stone-curlew	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 838 km to the offshore export cable corridor and 864 km to the OAA. Migration of breeding stone curlew from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement	No potential LSE concluded	Breeding stone curlews are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Indirect effects through effects on habitats and prey species Collision risk Barrier effect		
Medway Estuary and Marshes SPA and Ramsar	Breeding: Pied avocet, Common tern, Little tern Wintering: Red-throated diver, Great crested grebe, Great cormorant, Bewick's swan, Common shelduck, Eurasian wigeon, Eurasian teal, Mallard, Northern pintail, Northern shoveler, Common pochard, Hen harrier, Merlin, Eurasian oystercatcher, Pied avocet, Ringed plover, Grey plover, Red knot, Eurasian curlew, Common redshank, Common greenshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 842 km to the offshore export cable corridor and 872 km to the OAA. Breeding terns from this SPA likely migrate south along the east coastline after breeding, therefore connectivity with the offshore Project is unlikely. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal, pintail, shoveler, pochard, hen harrier, oystercatcher, ringed plover, grey plover, curlew, redshank, greenshank, turnstone and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Thursley, Hankley and Frensham Commons (Wealden Heaths Phase 1) SPA	Breeding: European nightjar, Wood lark, Dartford warbler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 846 km to the offshore export cable corridor and 874 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated breeding nightjar, wood lark and Dartford warbler during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding nightjar, wood lark and Dartford warbler are unlikely to migrate through the OAA and offshore export cable corridor.
Wealden Heaths Phase 2 SPA	Breeding: European nightjar, Wood lark, Dartford warbler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 849 km to the offshore export cable corridor and 877 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated breeding nightjar, wood lark and Dartford warbler during migration.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding nightjar, wood lark and Dartford warbler are unlikely to migrate through the OAA and offshore export cable corridor.
The Swale SPA and Ramsar	Wintering: Gadwall, Eurasian teal, Eurasian oystercatcher, Ringed plover, Grey plover, Eurasian curlew, Common redshank, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 850 km to the offshore export cable corridor and 880 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering teal, oystercatcher, ringed plover, grey plover, curlew and redshank to migrate through the OAA and be affected by collision risk and barrier effects.
New Forest SPA and Ramsar	Breeding: European honey-buzzard, Eurasian hobby, European nightjar, Wood lark, Dartford warbler, Wood warbler Wintering: Hen harrier	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 857 km to the offshore export cable corridor and 884 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors and passerines during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Thanet Coast and Sandwich Bay SPA and Ramsar	Breeding: Little tern Wintering: European golden plover, Ruddy turnstone	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 860 km to the offshore export cable corridor and 890 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding little tern. There is very limited potential for disturbance to terns from construction and decommissioning vessels.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					Construction and decommissioning vessels are unlikely to disturb designated waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering golden plover and turnstone to migrate through the OAA and be affected by collision risk and barrier effects.
Dorset Heathlands SPA and Ramsar	Breeding: European nightjar, Wood lark, Dartford warbler Wintering: Hen harrier, Merlin	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 863 km to the offshore export cable corridor and 889 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated breeding nightjar, wood lark, Dartford warbler and wintering merlin and hen harrier during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier to migrate through the OAA and be affected by collision risk and barrier effects.
Solent and Southampton Water SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Roseate tern, Common tern, Little tern Wintering: Eurasian teal, Ringed plover, Black-tailed godwit, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 864 km to the offshore export cable corridor and 890 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated breeding seabird species including: Mediterranean gull, Sandwich tern, roseate tern, common tern and little tern. There is very limited potential for disturbance to any of these seabird species from construction and decommissioning vessels during the breeding season or migration. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk	No potential LSE cannot be concluded	There is potential for designated wintering teal, ringed plover and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
			Barrier effect		
Avon Valley SPA and Ramsar	Wintering: Bewick's swan, Gadwall	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 864 km to the offshore export cable corridor and 890 km to the OAA. Migration of wintering Bewick's swan and gadwall to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering Bewick's swan and gadwall are unlikely to migrate through the OAA and offshore export cable corridor.
Solent and Dorset Coast SPA	Breeding: Sandwich tern, Common tern, Little tern	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (892 km) and offshore export cable corridor (865 km) for all three designated breeding tern species. Breeding terns from this SPA likely migrate south after breeding, therefore connectivity with the offshore Project is unlikely.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Terns from this SPA are unlikely to migrate through the OAA and offshore export cable corridor.
Stodmarsh SPA and Ramsar	Breeding: Gadwall Wintering: Great bittern, Eurasian wigeon, Gadwall, Mallard, Northern shoveler, Common pochard, Tufted duck, Hen harrier, Water rail, Northern lapwing, Common snipe, Greater white-fronted goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 868 km to the offshore export cable corridor and 899 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated raptors, wildfowl and waders during the breeding season, non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, pochard, tufted duck, hen harrier, greater white-fronted goose and to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Ashdown Forest SPA	Breeding: European nightjar, Dartford warbler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 869 km to the offshore export cable corridor and 898 km to the OAA. Migration of breeding nightjar, wood lark and Dartford warbler from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding nightjar, wood lark and Dartford warbler are unlikely to migrate through the OAA and offshore export cable corridor.
Arun Valley SPA and Ramsar	Wintering: Bewick's swan	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 875 km to the offshore export cable corridor and 903 km to the OAA. Migration of wintering Bewick's swan to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering Bewick's swan are unlikely to migrate through the OAA and offshore export cable corridor.
East Devon Heaths SPA	Breeding: European nightjar, Dartford warbler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 876 km to the offshore export cable corridor and 898 km to the OAA. Migration of breeding nightjar, wood lark and Dartford warbler from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding nightjar, wood lark and Dartford warbler are unlikely to migrate through the OAA and offshore export cable corridor.
Portsmouth Harbour SPA and Ramsar		Pre-construction, construction and decommissioning	Disturbance/displacement	No potential LSE concluded	SPA is within 877 km to the offshore export cable corridor and 904 km to the OAA.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
	Wintering: Red-breasted merganser, Black-tailed godwit, Dunlin, Dark-bellied brent goose		Indirect effects through effects on habitats and prey species.		Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering red-breasted merganser and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Exe Estuary SPA and Ramsar	Wintering: Slavonian grebe, Eurasian oystercatcher, Pied avocet, Grey plover, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 879 km to the offshore export cable corridor and 901 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering Slavonian grebe, oystercatcher, grey plover and black-tailed godwit (Icelandic race) to migrate through the OAA and be affected by collision risk and barrier effects.
Chichester and Langstone Harbours SPA and Ramsar	Breeding: Sandwich tern, Common tern, Little tern Wintering: Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Northern shoveler, Red-breasted merganser, Ringed plover, Grey plover, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Dunlin, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 879 km to the offshore export cable corridor and 906 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated breeding tern species. There is very limited potential for disturbance to any terns from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl and waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon, teal, pintail, red-breasted merganser, ringed plover, grey plover, sanderling, bar-tailed godwit, curlew, redshank and turnstone to migrate through the OAA and be affected by collision risk and barrier effects.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Poole Harbour SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Common tern Wintering: Little egret, Common shelduck, Pied avocet, Spoonbill, Black-tailed godwit, Dark-bellied brent goose, Great cormorant, Eurasian curlew, Dunlin, Common goldeneye, Common pochard, Red-breasted merganser, Common redshank, Spotted redshank, Common greenshank, Eurasian teal, Black-headed gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 881 km to the offshore export cable corridor and 906 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for all designated breeding seabird species. There is very limited potential for disturbance to any seabirds from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated waders during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering waders to migrate through the OAA and be affected by collision risk and barrier effects.
Chesil Beach and The Fleet SPA and Ramsar	Breeding: Little tern Wintering: Eurasian wigeon	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 886 km to the offshore export cable corridor and 910 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding little tern. There is very limited potential for disturbance to any seabirds from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated wildfowl during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering wigeon to migrate through the OAA and be affected by collision risk and barrier effects.
Pagham Harbour SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Ruff, Dark-bellied brent goose	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 888 km to the offshore export cable corridor and 916 km to the OAA. Migration of wintering ruff and dark-bellied brent goose is likely to result in negligible numbers passing through the offshore Project during migration. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding common tern and little tern. There is very limited potential for

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
					disturbance to any terns from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Breeding terns and wintering ruff and dark-bellied brent geese are unlikely to migrate through the OAA and offshore export cable corridor.
Dungeness, Romney Marsh and Rye Bay SPA	Breeding: Eurasian marsh harrier, Pied avocet, Mediterranean gull, Sandwich tern, Common tern, Little tern Wintering: Great bittern, Bewick's swan, Northern shoveler, Hen harrier, European golden plover, Ruff, Greater white-fronted goose, Eurasian wigeon, Gadwall, Common pochard, Little grebe, Great crested grebe, Great cormorant, Common coot, Northern lapwing, Sanderling, Whimbrel, Common sandpiper	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 892 km to the offshore export cable corridor and 922 km to the OAA. SPA is beyond mean maximum foraging range (+ 1SD) to the OAA and offshore export cable corridor for designated breeding seabirds including: Mediterranean gull, Sandwich tern, common tern and little tern. There is very limited potential for disturbance to any seabird species from construction and decommissioning vessels. Construction and decommissioning vessels are unlikely to disturb designated raptors, passerines, wildfowl and waders during the non-breeding season and migration.
	Passage: Aquatic warbler	Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering hen harrier, wildfowl and waders to migrate through the OAA and be affected by collision risk and barrier effects.
Tamar Estuaries Complex SPA	Wintering: Pied avocet Passage: Little egret	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 904 km to the offshore export cable corridor and 925 km to the OAA. Migration of wintering avocet and passage egret to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering avocet and passage egret are unlikely to migrate through the OAA and offshore export cable corridor.

SPA AND RAMSAR SITE	QUALIFYING INTEREST / FEATURE	PROJECT STAGE	POTENTIAL PATHWAY FOR LSE	CAN IT BE CONCLUDED THAT THERE WILL BE NO POTENTIAL LSE?	JUSTIFICATION
Falmouth Bay to St Austell Bay SPA	Wintering: Black-throated diver, Great northern diver, Slavonian grebe	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is within 920 km to the offshore export cable corridor and 939 km to the OAA. Construction and decommissioning vessels are unlikely to disturb designated waterbirds during the non-breeding season and migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE cannot be concluded	There is potential for designated wintering great northern diver and Slavonian grebe to migrate through the OAA and be affected by collision risk and barrier effects.
Marazion Marsh SPA	Wintering: Great bittern Passage: Aquatic warbler	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond 947 km to the offshore export cable corridor and 964 km to the OAA. Migration of wintering bittern and passage aquatic warbler to and from this SPA is likely to result in negligible numbers passing through the offshore Project during migration.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	Wintering bittern and passage aquatic warbler are unlikely to migrate through the OAA and offshore export cable corridor.
Isles of Scilly SPA and Ramsar	Breeding: European storm-petrel, European shag, Lesser black-backed gull, Great black-backed gull	Pre-construction, construction and decommissioning	Disturbance/displacement Indirect effects through effects on habitats and prey species.	No potential LSE concluded	SPA is beyond mean maximum foraging range (+ 1SD) to the OAA (986 km) and offshore export cable corridor (972 km) for breeding storm-petrel, shag, lesser black-backed gull and great black-backed gull. The proportion of these seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS, therefore there is very limited potential for disturbance to this species from construction and decommissioning vessels.
		Operation and maintenance	Disturbance/ displacement Indirect effects through effects on habitats and prey species Collision risk Barrier effect	No potential LSE concluded	The proportion of the seabird populations migrating through the OAA and offshore export cable corridor will be small relative to BDMPS. There is very little potential for operation and maintenance vessels to disturb designated species.

9 IN-COMBINATION ASSESSMENT

9.1 Introduction

This section includes an overview of the approach to identify and assess in-combination projects that will need to be considered within the RIAA.

9.2 Approach

As well as considering effects from the offshore Project alone, the Habitats Regulations require a consideration of potential effects on European sites from a project in-combination with other plans or projects.

The in-combination assessment will consider projects that are 'reasonably foreseeable' such as:

- Existing projects either built or in construction;
- Approved projects, awaiting implementation; and
- Proposals awaiting determination within the planning process with design information in the public domain (including other ScotWind offshore wind farms at the Scoping stage).

Other offshore activities and industries that will be considered include (but are not limited to):

- Marine renewables (offshore wind, wave and tidal);
- Coastal projects, including but not limited to port and harbour projects;
- Marine aggregate extraction, dredging and licensed disposal sites;
- Oil and gas activities;
- Carbon capture and storage; and
- Subsea cables and pipelines.

Other ScotWind projects, Offshore Wind Leasing Round 4 projects, and Innovation and Targeted Oil and Gas (INTOG) leasing round projects will be considered where there is sufficient publicly available information to conduct a meaningful assessment of in-combination effects. However, if sufficient detail is not available, it will not be possible to conduct a meaningful assessment of potential in-combination effects, and therefore, these projects would not be considered within the in-combination assessment.

The transmission infrastructure for the connection to the Flotta Hydrogen Hub is a separate project, and therefore will be considered within the in-combination assessment.

A staged approach will be undertaken to identify relevant in-combination projects, plans and activities for consideration within the HRA, and this will follow the same approach as the EIA:

- Step 1: Compilation of the project long-list:
  - First, a 'long list' of projects will be collated, based on defined ZOI's for each receptor. The ZOI's provide the maximum search areas for other projects to be screened into the in-combination project long list. Operational projects will only screened into the long list if there is considered to be the potential for an ongoing effect

from that project type (e.g. bird collision risk). For most receptors, operational projects will be considered to be part of the existing baseline, to be considered as part of the offshore / onshore Project-specific effect assessment and are therefore not considered within the in-combination effect assessment.

- Step 2: Compilation of project short-list:
  - This long list will then be reduced to a short-list by taking potential pathways of effect (e.g. temporal and physical overlap of effects) into account. Additional information will be gathered on each project within the project long list, to understand the activities, timescales and nature of the projects within the long list. This additional information will then be reviewed to determine the potential channels for in-combination effect, taking into consideration potential effect pathways and / or the potential for physical or temporal overlap of effects from other project activities and those of the offshore Project. The most up-to-date publicly available information in relation to the relevant project parameters will be used to inform the in-combination assessment.

When completing the in-combination assessment, it is important to consider that some proposed projects may not be taken forward and built out as currently described, and therefore, there is a level of uncertainty with respect to the potential effects which may arise. The 'stage' of a project, in relation to the certainty or uncertainty over whether the project will be brought forward as described, will be considered when drawing conclusions on in-combination effects.

10 SUMMARY

Table 10-1 below provides a summary of the European sites and their qualifying features for which no potential LSE cannot be concluded. These European sites have been screened in for further assessment within the RIAA.

Table 10-1 European sites for which no potential LSE cannot be ruled out

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
European sites designated for diadromous fish and associated features			
River Thurso SAC; **River Naver SAC;** **River Borgie SAC;** **Berriedale And Langwell Waters SAC;** **Little Gruinard River SAC;** **River Spey SAC;** **River Oykel SAC;** **River Moriston SAC;** **River Dee SAC;** **Langavat SAC;** **North Harris SAC; And** **Endrick Water SAC.**	Atlantic salmon	Pre-construction, construction and decommissioning	Mortality, injury or disturbance from underwater noise
		Operation and maintenance	Introduction of new hard substrate and potential for fish or predator aggregation
			EMF effects
			Underwater noise associated with floating foundations and associated operation and maintenance activities
			Barrier effects to diadromous fish from and the presence of fixed foundations or floating platforms and associated infrastructure, underwater noise and EMF
			Ghost fishing due to lost fishing gear becoming entangled in floating infrastructure
River Naver SAC; **River Borgie SAC;** **River Spey SAC;** **River Moriston SAC;** **River Dee SAC;** **North Harris SAC;** **Foinaven SAC; and** **River Evelix SAC**	Freshwater pearl mussel	Pre-construction, construction and decommissioning	Indirect effects from effects to Atlantic salmon
		Operation and maintenance	Indirect effects from effects to Atlantic salmon
European sites designated for ornithological features			
North Caithness Cliffs SPA	Breeding: Northern fulmar, Peregrine falcon, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds within OAA and offshore export cable corridor
Caithness and Sutherland Peatlands SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Eurasian wigeon, common scoter, Hen harrier, Golden eagle, Merlin, European golden plover, Common greenshank, Wood sandpiper, Short-eared owl, Dunlin	Pre-construction, construction and decommissioning	Disturbance to breeding divers within offshore export cable corridor
Hoy SPA	Breeding: Red-throated diver, Northern fulmar, Peregrine falcon, Arctic skua, Great skua, Great black-backed gull, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Sule Skerry and Sule Stack SPA	Breeding: European storm-petrel, Leach's storm-petrel, Northern gannet, European shag, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Pentland Firth Islands SPA	Breeding: Arctic tern	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating terns
Marwick Head SPA	Breeding: Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
East Caithness Cliffs SPA	Breeding: Northern fulmar, Great cormorant, European shag, Peregrine falcon, Herring gull, Great black-backed gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Cape Wrath SPA	Breeding: Northern fulmar, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Moray Firth SPA	Breeding: European shag Wintering: Red-throated diver, Great northern diver, Slavonian grebe, European shag, Greater scaup, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser	Pre-construction, construction and decommissioning	Disturbance to migrating seabirds
Rousay SPA	Breeding: Northern fulmar, Arctic skua, Black-legged kittiwake, Arctic tern, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Copinsay SPA	Breeding: Northern fulmar, Great black-backed gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
West Westray SPA	Breeding: Northern fulmar, Arctic skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Handa SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Auskerry SPA	Breeding: European storm-petrel, Arctic tern	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Calf of Eday SPA	Breeding: Northern fulmar, Great cormorant, Great black-backed gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Papa Westray (North Hill and Holm) SPA	Breeding: Arctic skua, Arctic tern	Pre-construction, construction and decommissioning	Disturbance to migrating seabirds
North Rona and Sula Sgeir SPA	Breeding: Northern fulmar, European storm-petrel, Leach's storm-petrel, Northern gannet, Great black-backed gull, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Priest Island (Summer Isles) SPA	Breeding: European storm-petrel	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Troup, Pennan and Lion's Heads SPA	Breeding: Northern fulmar, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Seas off Foula SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Common guillemot, Atlantic puffin Wintering: Northern fulmar, Great skua, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Fair Isle SPA	Breeding: Northern fulmar, Northern gannet, European shag, Arctic skua, Great skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill, Atlantic puffin, Fair Isle wren	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Shiant Isles SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Buchan Ness to Collieston Coast SPA	Breeding: Northern fulmar, European shag, Herring gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Foula SPA	Breeding: Red-throated diver, Northern fulmar, Leach's storm-petrel, European shag, Arctic skua, Great skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Sumburgh Head SPA	Breeding: Northern fulmar, Black-legged kittiwake, Arctic tern, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Mousa SPA	Breeding: European storm-petrel, Arctic tern	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Flannan Isles SPA	Breeding: Northern fulmar, Leach's storm-petrel, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Fowlsheugh SPA	Breeding: Northern fulmar, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Noss SPA	Breeding: Northern fulmar, Northern gannet, Great skua, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Seas off St Kilda SPA	Breeding: Northern fulmar ,European storm-petrel, Northern gannet, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Rum SPA	Breeding: Red-throated diver, Manx shearwater, Golden eagle, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Ronas Hill - North Roe and Tingon SPA and Ramsar	Breeding: Red-throated diver, Great skua	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Canna and Sanday SPA	Breeding: European shag, Herring gull, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Outer Firth of Forth and St Andrews Bay Complex SPA	Breeding: Manx shearwater, Northern gannet, European shag, Herring gull, Black-legged kittiwake, Common tern, Arctic tern, Common guillemot, Atlantic puffin Wintering: Red-throated diver, Slavonian grebe, European shag, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser, Little gull, Black-headed gull, Common gull, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Ramna Stacks and Gruney SPA	Breeding: Leach's storm-petrel	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Fetlar SPA	Breeding: Northern fulmar, Whimbrel, Red-necked phalarope, Arctic skua, Great skua, Arctic tern, Dunlin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Coll and Tiree SPA	Wintering: Great northern diver, Common eider	Pre-construction, construction and decommissioning	Disturbance to migrating divers
Hermaness, Saxa Vord and Valla Field SPA	Breeding: Red-throated diver, Northern fulmar, Northern gannet, European shag, Great skua, Black-legged kittiwake, Common guillemot, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
St Kilda SPA	Breeding: Northern fulmar, Manx shearwater, European storm-petrel, Leach's storm-petrel, Northern gannet, Great skua, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Forth Islands SPA	Breeding: Northern gannet, Great cormorant, European shag, Lesser black-backed gull, Herring gull, Black-legged kittiwake, Sandwich tern, Roseate tern, Common tern, Arctic tern, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Treshnish Isles SPA	Breeding: European storm-petrel Wintering: Barnacle goose	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Mingulay and Berneray SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Ailsa Craig SPA	Breeding: Northern gannet, Lesser black-backed gull, Herring gull, Black-legged kittiwake, Common guillemot	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Copeland Islands SPA	Breeding: Manx shearwater, Arctic tern	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Liverpool Bay / Bae Lerpwl SPA	Breeding: Little gull, Common tern, Little tern Wintering: Red-throated diver, Common scoter, Little gull, Red-breasted merganser, Great cormorant, Black-headed gull, Common gull, Common eider, Northern Fulmar, Great black-backed gull, Great crested grebe, Common guillemot, Northern gannet, Atlantic puffin, Herring gull, Black-legged kittiwake, Lesser black-backed gull, Black-throated diver, European shag, Razorbill, Velvet scoter	Pre-construction, construction and decommissioning	Disturbance to wintering and migrating seabirds
Flamborough and Filey Coast SPA	Breeding: Northern gannet, Black-legged kittiwake, Common guillemot, Razorbill, Northern Fulmar	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Irish Sea Front SPA	Breeding: Manx shearwater	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA	Breeding: Manx shearwater, Red-billed chough Wintering: Red-billed chough	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro SPA	Breeding: Manx shearwater, European storm-petrel, Lesser black-backed gull, Atlantic puffin, Short-eared owl, Red-billed chough	Pre-construction, construction and decommissioning	Disturbance to breeding and migrating seabirds
North Caithness Cliffs SPA	Breeding: Northern fulmar, Peregrine falcon, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds
Caithness and Sutherland Peatlands SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Eurasian wigeon, common scoter, Hen harrier, Golden eagle, Merlin, European golden plover, Common greenshank, Wood sandpiper, Short-eared owl, Dunlin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds
Caithness Lochs SPA and Ramsar	Wintering: Whooper swan, Greylag goose, Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Hoy SPA	Breeding: Red-throated diver, Northern fulmar, Peregrine falcon, Arctic skua, Great skua, Great black-backed gull, Black-legged kittiwake, Common guillemot, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
North Sutherland Coastal Islands SPA	Wintering: Barnacle goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Sule Skerry and Sule Stack SPA	Breeding: European storm-petrel, Leach's storm-petrel, Northern gannet, European shag, Common guillemot, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Pentland Firth Islands SPA	Breeding: Arctic tern	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Switha SPA	Wintering: Barnacle goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Marwick Head SPA	Breeding: Black-legged kittiwake, Common guillemot	Operation and maintenance	Breeding: Black-legged kittiwake, Common guillemot
Orkney Mainland Moors SPA	Breeding: Red-throated diver, Hen harrier, Short-eared owl; Wintering: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
East Caithness Cliffs SPA	Breeding: Northern fulmar, Great cormorant, European shag, Peregrine falcon, Herring gull, Great black-backed gull, Black-legged kittiwake, Common guillemot, Razorbill	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Cape Wrath SPA	Breeding: Northern fulmar, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Moray Firth SPA	Breeding: European shag Wintering: Red-throated diver, Great northern diver, Slavonian grebe, European shag, Greater scaup, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds. Collision risk and barrier effects to migrating birds.
Rousay SPA	Breeding: Northern fulmar, Arctic skua, Black-legged kittiwake, Arctic tern, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Copinsay SPA	Breeding: Northern fulmar, Great black-backed gull, Black-legged kittiwake, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
West Westray SPA	Breeding: Northern fulmar, Arctic skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Strath Carnaig and Strath Fleet Moors SPA	Breeding: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Handa SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Black-legged kittiwake, Common guillemot, Razorbill	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Dornoch Firth and Loch Fleet SPA and Ramsar	Breeding: Osprey Wintering: Greylag goose, Eurasian wigeon, Eurasian teal, Greater scaup, Eurasian oystercatcher, Bar-tailed godwit, Eurasian curlew, Common redshank, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Auskerry SPA	Breeding: European storm-petrel, Arctic tern	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Calf of Eday SPA	Breeding: Northern fulmar, Great cormorant, Great black-backed gull, Black-legged kittiwake, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Papa Westray (North Hill and Holm) SPA	Breeding: Arctic skua, Arctic tern	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
East Sanday Coast SPA and Ramsar	Wintering: Purple sandpiper, Bar-tailed godwit, Ruddy turnstone	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Eye SPA and Ramsar	Wintering: Whooper swan, Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Cromarty Firth SPA and Ramsar	Breeding: Osprey, Common tern Wintering: Whooper swan, Greylag goose, Eurasian wigeon, Northern pintail, Greater scaup, Red-breasted merganser, Eurasian oystercatcher, Bar-tailed godwit, Eurasian curlew, Common redshank, red knot, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
North Rona and Sula Sgeir SPA	Breeding: Northern fulmar, European storm-petrel, Leach's storm-petrel, Northern gannet, Great black-backed gull, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Moray and Nairn Coast SPA and Ramsar	Breeding: Osprey Wintering: Pink-footed goose, Greylag goose, Eurasian wigeon, Red-breasted merganser, Eurasian oystercatcher, Bar-tailed godwit, Common redshank, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Spynie SPA and Ramsar	Wintering: Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Beinn Dearg SPA	Breeding: Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Ben Wyvis SPA	Breeding: Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Inner Moray Firth SPA and Ramsar	Breeding: Osprey, Common tern Wintering: Great cormorant, Greylag goose, Eurasian wigeon, Eurasian teal, Greater scaup, Common goldeneye, Red-breasted merganser, Goosander, Eurasian oystercatcher, Black-tailed godwit, Eurasian curlew, Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Flemington SPA	Breeding: Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Priest Island (Summer Isles) SPA	Breeding: European storm-petrel	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Lewis Peatlands SPA and Ramsar	Breeding: Red-throated diver, Black-throated diver, Golden eagle, Merlin, European golden plover, Common greenshank, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Ness and Barvas, Lewis SPA	Breeding: Corncrake	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Troup, Pennan and Lion's Heads SPA	Breeding: Northern fulmar, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Seas off Foula SPA	Breeding: Northern fulmar, Arctic skua, Great skua, Common guillemot, Atlantic puffin Wintering: Northern fulmar, Great skua, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Loch Ashie SPA	Passage: Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Fair Isle SPA	Breeding: Northern fulmar, Northern gannet, European shag, Arctic skua, Great skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill, Atlantic puffin, Fair Isle wren	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
North Inverness Lochs SPA	Breeding: Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Ruthven SPA and Ramsar	Breeding: Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch of Strathbeg SPA and Ramsar	Breeding: Sandwich tern Wintering: Whooper swan, Pink-footed goose, Greylag goose, Barnacle goose, Eurasian teal, Common goldeneye	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Vaa SPA	Breeding: Golden eagle, Osprey, Merlin, Peregrine falcon, Eurasian dotterel, Scottish crossbill Permanent: Western capercaillie	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Cairngorms SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin Wintering: Barnacle goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Shiant Isles SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin Wintering: Barnacle goose	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
River Spey - Insh Marshes SPA and Ramsar	Breeding: Eurasian wigeon, Osprey, Spotted crake, Wood sandpiper Wintering: Whooperswan, Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Knockie and Nearby Lochs SPA	Breeding: Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.
West Inverness-shire Lochs SPA	Breeding: Black-throated diver, Common scoter	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Buchan Ness to Collieston Coast SPA	Breeding: Northern fulmar, European shag, Herring gull, Black-legged kittiwake, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Foula SPA	Breeding: Red-throated diver, Northern fulmar, Leach's storm-petrel, European shag, Arctic skua, Great skua, Black-legged kittiwake, Arctic tern, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Ythan Estuary, Sands of Forvie and Meikle Loch SPA and Ramsar	Breeding: Sandwich tern, Common tern, Little tern Wintering: Pink-footed goose, Common eider, Northern lapwing, Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Muir of Dinnet SPA and Ramsar	Wintering: Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Glen Tanar SPA	Breeding: Hen harrier, Osprey, Scottish crossbill Permanent: Western capercaillie	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch of Skene SPA and Ramsar	Wintering: Greylag goose, Common goldeneye, Goosander	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Sumburgh Head SPA	Breeding: Northern fulmar, Black-legged kittiwake, Arctic tern, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Creag Meagaidh SPA	Breeding: Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Lochnagar SPA	Breeding: Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
West Coast of the Outer Hebrides SPA	Breeding: Red-throated diver Wintering: Black-throated diver, Great northern diver, Slavonian grebe, Common eider, Long-tailed duck, Red-breasted merganser	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Caenlochan SPA	Breeding: Golden eagle, Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Lochs of Spiggie and Brow SPA	Wintering: Whooper swan	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Drumochter Hills SPA	Breeding: Merlin, Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Ben Alder SPA	Breeding: Eurasian dotterel	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Mousa SPA	Breeding: European storm-petrel, Arctic tern	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Forest of Clunie SPA	Breeding: Hen harrier, Osprey, Merlin, Short-eared owl	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Papa Stour SPA	Passage: Ringed plover	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Flannan Isles SPA	Breeding: Northern fulmar, Leach's storm-petrel, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Fowlsheugh SPA	Breeding: Northern fulmar, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
East Mainland Coast, Shetland SPA	Breeding: Red-throated diver Wintering: Great northern diver, Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.
North Uist Machair and Islands SPA and Ramsar	Breeding: Corncrake, Eurasian oystercatcher, Ringed plover, Common redshank, Dunlin Wintering: Barnacle goose, Ringed plover, Purple sandpiper, Ruddy turnstone	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Noss SPA	Breeding: Northern fulmar, Northern gannet, Great skua, Black-legged kittiwake, Common guillemot, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Loch of Lintrathen SPA and Ramsar	Wintering: Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Seas off St Kilda SPA	Breeding: Northern fulmar ,European storm-petrel, Northern gannet, Common guillemot, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Loch of Kinnordy SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Montrose Basin SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose, Common shelduck, Eurasian wigeon, Common eider, Eurasian oystercatcher, Common redshank, red knot, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Rum SPA	Breeding: Red-throated diver, Manx shearwater, Golden eagle, Black-legged kittiwake, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Ronas Hill - North Roe and Tingon SPA and Ramsar	Breeding: Red-throated diver, Great skua	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Canna and Sanday SPA	Breeding: European shag, Herring gull, Black-legged kittiwake, Common guillemot, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Outer Firth of Forth and St Andrews Bay Complex SPA	Breeding: Manx shearwater, Northern gannet, European shag, Herring gull, Black-legged kittiwake, Common tern, Arctic tern, Common guillemot, Atlantic puffin Wintering: Red-throated diver, Slavonian grebe, European shag, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser, Little gull, Black-headed gull, Common gull, Herring gull, Black-legged kittiwake, Common guillemot, Razorbill	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds. Collision risk and barrier effects to migrating birds.
Aird and Borve, Benbecula SPA	Breeding: Corncrake	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Firth of Tay and Eden Estuary SPA and Ramsar	Breeding: Eurasian marsh harrier, Little tern Wintering: Great cormorant, Pink-footed goose, Greylag goose, Common shelduck, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser, Goosander, Eurasian oystercatcher, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, Black-tailed godwit, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
South Uist Machair and Lochs SPA and Ramsar	Breeding: Corncrake, Eurasian oystercatcher, Ringed plover, Common redshank, Little tern, Dunlin Wintering: Ringed plover, Sanderling	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Monach Islands SPA	Breeding: Little tern Wintering: Barnacle goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Ramna Stacks and Gruney SPA	Breeding: Leach's storm-petrel	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Fetlar SPA	Breeding: Northern fulmar, Whimbrel, Red-necked phalarope, Arctic skua, Great skua, Arctic tern, Dunlin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
South Tayside Goose Roosts SPA and Ramsar	Breeding: Eurasian wigeon Wintering: Pink-footed goose, Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Coll and Tiree SPA	Wintering: Great northern diver, Common eider	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Cameron Reservoir SPA and Ramsar	Wintering: Pink-footed goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Hermaness, Saxa Vord and Valla Field SPA	Breeding: Red-throated diver, Northern fulmar, Northern gannet, European shag, Great skua, Black-legged kittiwake, Common guillemot, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Kilpheder and Smerclate, South Uist SPA	Breeding: Corncrake	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Loch Leven SPA and Ramsar	Wintering: Great cormorant, Whooper swan, Pink-footed goose, Gadwall, Eurasian teal, Northern shoveler, Common pochard, Tufted duck, Common goldeneye	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Firth of Forth SPA and Ramsar	Wintering: Red-throated diver, Great crested grebe, Slavonian grebe, Great cormorant, Pink-footed goose, Common shelduck, Eurasian wigeon, Mallard, Greater scaup, Common eider, Long-tailed duck, Common scoter, Velvet scoter, Common goldeneye, Red-breasted merganser, Eurasian oystercatcher, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Dunlin Passage: Sandwich tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Coll SPA and Ramsar	Wintering: Barnacle goose, Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
St Kilda SPA	Breeding: Northern fulmar, Manx shearwater, European storm-petrel, Leach's storm-petrel, Northern gannet, Great skua, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Forth Islands SPA	Breeding: Northern gannet, Great cormorant, European shag, Lesser black-backed gull, Herring gull, Black-legged kittiwake, Sandwich tern, Roseate tern, Common tern, Arctic tern, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Eoligarry, Barra SPA	Breeding: Corncrake	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Coll (corncrake) SPA	Breeding: Corncrake	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Treshnish Isles SPA	Breeding: European storm-petrel Wintering: Barnacle goose	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Loch Lomond SPA and Ramsar	Wintering: Greenland white-fronted goose Permanent: Western capercaillie	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Sléibhtean agus Cladach Thiriodh (Tiree Wetlands and Coast) SPA and Ramsar	Breeding: Eurasian oystercatcher, Ringed plover, Common redshank, Dunlin Wintering: Barnacle goose, Ringed plover, Ruddy turnstone, Greenland white-fronted goos	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Inner Clyde Estuary SPA and Ramsar	Wintering: Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Mingulay and Berneray SPA	Breeding: Northern fulmar, European shag, Black-legged kittiwake, Common guillemot, Razorbill, Atlantic puffin	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Tiree (corncrake) SPA	Breeding: Corncrake	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Black Cart SPA	Wintering: Whooper swan	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Renfrewshire Heights SPA	Breeding: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Fala Flow SPA and Ramsar	Wintering: Pink-footed goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Gladhouse Reservoir SPA and Ramsar	Wintering: Pink-footed goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Westwater SPA and Ramsar	Wintering: Pink-footed goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Oronsay and South Colonsay SPA	Breeding: Red-billed chough, Corncrake Wintering: Red-billed chough	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Sound of Gigha SPA	Wintering: Great northern diver, Slavonian grebe, Common eider, Red-breasted merganser	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Greenlaw Moor SPA and Ramsar	Wintering: Pink-footed goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Northumbria Coast SPA and Ramsar	Breeding: Arctic tern, Little tern Wintering: Purple sandpiper, Ruddy turnstone	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Muirkirk and North Lowther Uplands SPA	Breeding: Hen harrier, Merlin, Peregrine falcon, European golden plover, Short-eared owl Wintering: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Arran Moors SPA	Breeding: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Lindisfarne SPA and Ramsar	Breeding: Roseate tern, Little tern Wintering: Whooper swan, Greylag goose, Common shelduck, Eurasian wigeon, Common eider, Long-tailed duck, Common scoter, Red-breasted merganser, Ringed plover, European golden plover, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, Dunlin, Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Gruinart Flats, Islay SPA and Ramsar	Breeding: Red-billed chough Wintering: Barnacle goose, Red-billed chough, Greenland white-fronted goose Passage: Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Kintyre Goose Roosts SPA and Ramsar	Wintering: Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Rinns of Islay SPA and Ramsar	Breeding: Common scoter, Hen harrier, Corncrake, Red-billed chough Wintering: Red-billed chough, Greenland white-fronted goose Permanent: Whooper swan	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Din Moss - Hoselaw Loch SPA and Ramsar	Wintering: Pink-footed goose, Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Holburn Lake and Moss SPA and Ramsar	Wintering: Greylag goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Bridgend Flats, Islay SPA and Ramsar	Wintering: Barnacle goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Laggan, Islay SPA	Wintering: Barnacle goose, Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Eilean na Muice Duibhe (Duich Moss) SPA and Ramsar	Wintering: Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Langholm - Newcastleton Hills SPA	Breeding: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Ailsa Craig SPA	Breeding: Northern gannet, Lesser black-backed gull, Herring gull, Black-legged kittiwake, Common guillemot	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Castle Loch, Lochmaben SPA and Ramsar	Wintering: Pink-footed goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch Ken and River Dee Marshes SPA and Ramsar	Wintering: Greylag goose, Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Glen App and Galloway Moors SPA	Breeding: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Solway Firth SPA and Ramsar	Wintering: Red-throated diver, Great cormorant, Whooper swan, Pink-footed goose, Barnacle goose, Common shelduck, Eurasian teal, Northern pintail, Northern shoveler, Greater scaup, Common scoter, Common goldeneye, Goosander, Eurasian oystercatcher, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Black-headed gull, Common gull, Herring gull, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Antrim Hills SPA	Breeding: Hen harrier, Merlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
North Pennine Moors SPA	Breeding: Hen harrier, Merlin, Peregrine falcon, European golden plover	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Loch of Inch and Torrs Warren SPA and Ramsar	Wintering: Hen harrier, Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Garron Plateau Ramsar	Breeding: Golden plover	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Lough Foyle SPA and Ramsar	Wintering: Whooper swan, Bar-tailed godwit, Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Larne Lough SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Roseate tern, Common tern Wintering: Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Copeland Islands SPA	Breeding: Manx shearwater, Arctic tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Belfast Lough SPA and Ramsar	Breeding: Common tern, Arctic tern Wintering: Bar-tailed godwit, Common redshank, Black-tailed godwit	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Outer Ards SPA and Ramsar	Breeding: Arctic tern Wintering: Ringed plover, European golden plover, Ruddy turnstone, Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Teesmouth and Cleveland Coast SPA and Ramsar	Breeding: Pied avocet, Common tern, Little tern Wintering: Red knot, Ruff, Common redshank, Sandwich tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Lough Neagh and Lough Beg SPA and Ramsar	Breeding: Common tern Wintering: Bewick's swan, Whooper swan, Common pochard, Tufted duck, Common goldeneye	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Strangford Lough SPA and Ramsar	Breeding: Sandwich tern, Common tern, Arctic tern Wintering: Red knot, Common redshank, Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Morecambe Bay and Duddon Estuary SPA and Ramsar	Breeding: Lesser black-backed gull, Herring gull, Sandwich tern, Common tern, Little tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
	Wintering: Little egret, Whooper swan, European golden plover, Ruff, Bar-tailed godwit, Mediterranean gull Passage: Pink-footed goose, Common shelduck, Northern pintail, Eurasian oystercatcher, Ringed plover, Grey plover, Red knot, Sanderling, Eurasian curlew, Common redshank, Ruddy turnstone, Lesser black-backed gull, Black-tailed godwit, Dunlin		
North York Moors SPA	Breeding: Merlin, European golden plover	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Killough Bay SPA and Ramsar	Wintering: Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Bowland Fells SPA	Breeding: Hen harrier, Merlin, Lesser black-backed gull	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Liverpool Bay / Bae Lerpwl SPA	Breeding: Common tern, Little tern Wintering: Red-throated diver, Common scoter, Little gull	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Slieve Beagh - Mullaghfad - Lisnaskea SPA	Breeding: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Pettigoe Plateau SPA and Ramsar	Breeding: European golden plover	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Carlingford Lough SPA and Ramsar	Breeding: Sandwich tern, Common tern Wintering: Light-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
South Pennine Moors Phase 2 SPA	Breeding: Merlin, European golden plover, Short-eared owl	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Upper Lough Erne SPA and Ramsar	Wintering: Whooper swan	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Flamborough and Filey Coast SPA	Breeding: Northern gannet, Black-legged kittiwake, Common guillemot, Razorbill, Northern Fulmar	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Ribble and Alt Estuaries SPA and Ramsar	Breeding: Ruff, Black-headed gull, Lesser black-backed gull, Common tern Wintering: Great cormorant, Bewick's swan, Whooper swan, Pink-footed goose, Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Greater scaup, Common scoter, Eurasian oystercatcher, European golden plover, Grey plover, Northern lapwing, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover, Sanderling, Whimbrel, Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Irish Sea Front SPA	Breeding: Manx shearwater	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Lower Derwent Valley SPA and Ramsar	Breeding: Northern shoveler Wintering: Bewick's swan, Eurasian wigeon, Eurasian teal, European golden plover, Ruff	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Greater Wash SPA	Breeding: Sandwich tern, Common tern, Little tern Wintering: Red-throated diver, Common scoter, Little gull	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Martin Mere SPA and Ramsar	Wintering: Bewick's swan, Whooper swan, Pink-footed goose, Eurasian wigeon, Northern pintail	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Peak District Moors (South Pennine Moors Phase 1) SPA	Breeding: Merlin, European golden plover, Short-eared owl	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Humber Estuary SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier, Pied avocet, Little tern Wintering: Great bittern, Common shelduck, Eurasian wigeon, Eurasian teal, Mallard, Common pochard, Greater scaup, Common goldeneye, Hen harrier, Eurasian oystercatcher, Pied avocet, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Common greenshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose Passage: Ringed plover, Grey plover, Red knot, Sanderling, Ruff, Whimbrel, Common redshank, Black-tailed godwit, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Mersey Narrows and North Wirral Foreshore SPA and Ramsar	Breeding: Common tern Wintering: Great cormorant, Eurasian oystercatcher, Grey plover, Sanderling, Bar-tailed godwit, Common redshank, red knot, Dunlin Passage: Little gull, Common tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.
The Dee Estuary SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Common shelduck, Eurasian teal, Northern pintail, Eurasian oystercatcher, Grey plover, Red knot, Bar-tailed godwit, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Common redshank, Sandwich tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Mersey Estuary SPA and Ramsar	Wintering: Great crested grebe, Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, European golden plover, Grey plover, Northern lapwing, Eurasian curlew, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover, Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Rostherne Mere Ramsar	Wintering: Northern shoveler, Pochard	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Traeth Lafan/ Lavan Sands, Conway Bay SPA	Wintering: Red-breasted merganser, Eurasian oystercatcher, Eurasian curlew, Common redshank Passage: Great crested grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Migneint-Arenig-Dduallt SPA	Breeding: Hen harrier, Merlin, Peregrine falcon	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Berwyn SPA	Breeding: Red kite, Hen harrier, Merlin, Peregrine falcon	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island SPA	Breeding: Manx shearwater, Red-billed chough Wintering: Red-billed chough	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Gibraltar Point SPA and Ramsar	Breeding: Little tern Wintering: Grey plover, Sanderling, Bar-tailed godwit	Operation and maintenance	Collision risk and barrier effects to migrating birds.
The Wash SPA and Ramsar	Breeding: Common tern, Little tern Wintering: Bewick's swan, Pink-footed goose, Common shelduck, Eurasian wigeon, Gadwall, Northern pintail, Common scoter, Common goldeneye, Eurasian oystercatcher, Grey plover, Red knot, Sanderling, Bar-tailed godwit,	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
	Eurasian curlew, Common redshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose		
Dyfi Estuary / Aber Dyfi SPA	Wintering: Greenland white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Cors Fochno and Dyfi Ramsar	Passage: Common greenshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
North Norfolk Coast SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier, Pied avocet, Sandwich tern, Common tern, Little tern Wintering: Pink-footed goose, Eurasian wigeon, Pied avocet, Red knot, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Rutland Water SPA and Ramsar	Wintering: Great crested grebe, Mute swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern shoveler, Tufted duck, Common goldeneye, Goosander, Common coot	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Cors Caron Ramsar	Wintering: Whooper swan	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Nene Washes SPA and Ramsar	Breeding: Gadwall, Garganey, Northern shoveler, Black-tailed godwit Wintering: Bewick's swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern pintail, Northern shoveler	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Upper Nene Valley Gravel Pits SPA and Ramsar	Wintering: Great crested grebe, Great cormorant, Great bittern, Eurasian wigeon, Gadwall, Mallard, Northern shoveler, Common pochard, Tufted duck, Common coot, European golden plover, Northern lapwing	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Ouse Washes SPA and Ramsar	Breeding: Gadwall, Mallard, Garganey, Northern shoveler, Black-tailed godwit Wintering: Great cormorant, Mute swan, Bewick's swan, Whooper swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern pintail, Northern shoveler, Common pochard, Tufted duck, Hen harrier, Common coot, Ruff	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Broadland SPA and Ramsar	Breeding: Great bittern, Eurasian marsh harrier Wintering: Bewick's swan, Whooper swan, Eurasian wigeon, Gadwall, Northern shoveler, Hen harrier, Ruff	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Breydon Water SPA and Ramsar	Breeding: Common tern Wintering: Bewick's swan, Pied avocet, European golden plover, Northern lapwing Passage: Ruff	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Severn Estuary SPA and Ramsar	Wintering: Bewick's swan, Common shelduck, Gadwall, Common redshank, Greater white-fronted goose, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro SPA	Breeding: Manx shearwater, European storm-petrel, Lesser black-backed gull, Atlantic puffin, Short-eared owl, Red-billed chough	Operation and maintenance	Disturbance, collision risk and barrier effects to breeding and migrating seabirds.
Bae Caerfyrddin/ Carmarthen Bay SPA	Wintering: Common scoter	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Burry Inlet SPA and Ramsar	Wintering: Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Northern shoveler, Eurasian oystercatcher, Grey plover, Red knot, Eurasian curlew, Common redshank, Ruddy turnstone, Dunlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Minsmere-Walberswick SPA and Ramsar	Breeding: Great bittern, Gadwall, Eurasian teal, Northern shoveler, Pied avocet, Little tern, European nightjar, Eurasian marsh harrier Wintering: Gadwall, Northern shoveler, Hen harrier, Greater white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Alde-Ore Estuary SPA and Ramsar	Breeding: Eurasian marsh harrier, Pied avocet, Lesser black-backed gull, Sandwich tern, Little tern Wintering: Pied avocet, Ruff, Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Stour and Orwell Estuaries SPA and Ramsar	Breeding: Pied avocet Wintering: Great crested grebe, Great cormorant, Mute swan, Common shelduck, Eurasian wigeon, Gadwall, Northern pintail, Greater scaup, Common goldeneye, Ringed plover, European golden plover, Grey plover, Northern lapwing, Red knot, Eurasian curlew, Common redshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose Passage: Ringed plover, Common redshank	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Abberton Reservoir SPA and Ramsar	Breeding: Great cormorant Wintering: Great crested grebe, Mute swan, Eurasian wigeon, Gadwall, Eurasian teal, Northern shoveler, Common pochard, Tufted duck, Common goldeneye, Common coot	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Hamford Water SPA and Ramsar	Breeding: Little tern Wintering: Common shelduck, Eurasian teal, Pied avocet, Ringed plover, Grey plover, Common redshank, Black-tailed godwit, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar	Breeding: Common pochard, Ringed plover, Little tern Wintering: Hen harrier, Common redshank, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar	Breeding: Common pochard, Ringed plover, Little tern Wintering: Hen harrier, Ringed plover, Grey plover, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Dengie (Mid-Essex Coast Phase 1) SPA and Ramsar	Wintering: Hen harrier, Grey plover, Red knot, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Salisbury Plain SPA	Breeding: Eurasian hobby, Common quail, Stone-curlew Wintering: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Somerset Levels and Moors SPA and Ramsar	Wintering: Bewick's swan, Eurasian teal, European golden plover, Northern lapwing	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Foulness (Mid-Essex Coast Phase 5) SPA and Ramsar	Breeding: Pied avocet, Ringed plover, Sandwich tern, Common tern, Little tern Wintering: Hen harrier, Eurasian oystercatcher, Pied avocet, Grey plover, Red knot, Bar-tailed godwit, Common redshank, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
Benfleet and Southend Marshes SPA and Ramsar	Wintering: Ringed plover, Grey plover, Red knot, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Thames Estuary and Marshes SPA and Ramsar	Wintering: Hen harrier, Pied avocet, Grey plover, Red knot, Common redshank, Black-tailed godwit, Dunlin Passage: Ringed plover	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Medway Estuary and Marshes SPA and Ramsar	Breeding: Pied avocet, Common tern, Little tern Wintering: Red-throated diver, Great crested grebe, Great cormorant, Bewick's swan, Common shelduck, Eurasian wigeon ,Eurasian teal, Mallard, Northern pintail, Northern shoveler, Common pochard, Hen harrier, Merlin, Eurasian oystercatcher, Pied avocet, Ringed plover, Grey plover, Red knot, Eurasian curlew, Common redshank, Common greenshank, Ruddy turnstone, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
The Swale SPA and Ramsar	Wintering: Gadwall, Eurasian teal, Eurasian oystercatcher, Ringed plover, Grey plover, Eurasian curlew, Common redshank, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
New Forest SPA and Ramsar	Breeding: European honey-buzzard, Eurasian hobby, European nightjar, Wood lark, Dartford warbler, Wood warbler Wintering: Hen harrier	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Thanet Coast and Sandwich Bay SPA and Ramsar	Breeding: Little tern Wintering: European golden plover, Ruddy turnstone	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Dorset Heathlands SPA and Ramsar	Breeding: European nightjar, Wood lark, Dartford warbler Wintering: Hen harrier, Merlin	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Solent and Southampton Water SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Roseate tern, Common tern, Little tern Wintering: Eurasian teal, Ringed plover, Black-tailed godwit, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Stodmarsh SPA and Ramsar	Breeding: Gadwall Wintering: Great bittern, Eurasian wigeon, Gadwall, Mallard, Northern shoveler, Common pochard, Tufted duck, Hen harrier, Water rail, Northern lapwing, Common snipe, Greater white-fronted goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Portsmouth Harbour SPA and Ramsar	Wintering: Red-breasted merganser, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Exe Estuary SPA and Ramsar	Wintering: Slavonian grebe, Eurasian oystercatcher, Pied avocet, Grey plover, Black-tailed godwit, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Chichester and Langstone Harbours SPA and Ramsar	Breeding: Sandwich tern, Common tern, Little tern Wintering: Common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Northern shoveler, Red-breasted merganser, Ringed plover, Grey plover, Sanderling, Bar-tailed godwit, Eurasian curlew, Common redshank, Ruddy turnstone, Dunlin, Dark-bellied brent goose	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Poole Harbour SPA and Ramsar	Breeding: Mediterranean gull, Sandwich tern, Common tern	Operation and maintenance	Collision risk and barrier effects to migrating birds.

DESIGNATED SITE	QUALIFYING INTEREST / FEATURES	PROJECT STAGE	POTENTIAL PATHWAYS FOR LSE
	Wintering: Little egret, Common shelduck, Pied avocet, Spoonbill, Black-tailed godwit		
Chesil Beach and The Fleet SPA and Ramsar	Breeding: Little tern Wintering: Eurasian wigeon	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Dungeness, Romney Marsh and Rye Bay SPA	Breeding: Eurasian marsh harrier, Pied avocet, Mediterranean gull, Sandwich tern, Common tern, Little tern Wintering: Great bittern, Bewick's swan, Northern shoveler, Hen harrier, European golden plover, Ruff Passage: Aquatic warbler	Operation and maintenance	Collision risk and barrier effects to migrating birds.
Falmouth Bay to St Austell Bay SPA	Wintering: Black-throated diver, Great northern diver, Slavonian grebe	Operation and maintenance	Collision risk and barrier effects to migrating birds.

11 REFERENCES

Andersson, M., Sigray, P. and Persson, L. (2011). Operational wind farm noise and shipping noise compared with estimated zones of audibility for four species of fish. *Journal of The Acoustical Society of America*. Vol.129. 10.

Armstrong, J.D., Gauld, N.R., Gilbey, J. and Morris, D.J. (2018). Application of acoustic tagging, satellite tracking and genetics to assess the mixed stock nature of coastal net fisheries. Scottish Marine and Freshwater Science Vol 9 No 5.

Armstrong, J.D., Hunter, D-C, Fryer, R.J., Rycroft, P. and Orwood, J.E. (2015) Behavioural Responses of Atlantic Salmon to Mains Frequency Magnetic Fields. Scottish Marine and Freshwater Science Vol 6 No 9. Edinburgh: Scottish Government, 17.

Atlantic Salmon Trust (2016). Atlantic Salmon Life Cycle. Available from: https://atlanticsalmontrust.org/wp-content/uploads/2016/12/atlantic_salmon_life_cycle.pdf [Accessed 16/08/2022].

Atlantic Salmon Trust (2022). Ocean. Available from: https://atlanticsalmontrust.org/ocean/#:~:text=The%20western%20part%20of%20the,enable%20salmon%20to%20grow%20quickly. [Accessed 19/07/2022].

Cauwelier, E., Gilbey, J and Middlemas, S.J. (2015). Genetic Assignment of Marine-Caught Adult Salmon at Armadale to Region of Origin. Scottish Marine and Freshwater Science Vol 6 No 16.

Copping, A.E., Hemery, L.G., Viehman, H., Seitz, A.C., Staines, G.J. and Hasselman, D.J (2021). Are fish in danger? A review of environmental effects of marine renewable energy on fishes. *Biological Conservation*, 262, 109297.

Dodd, J.A. & Briers, R.A. (2021). The ImpactEffect of Shadow Flicker or Pulsating Shadow Effect, Caused by Wind Turbine Blades, on Atlantic Salmon (Salmo salar) CD2020_08. Scotland's Centre of Expertise for Waters (CREW). Available from: crew.ac.uk/publications [Accessed 13/07/2022].

Downie, H., Hanson, N., Smith, G.W., Middlemas, S.J., Anderson, J., Tulett, D. and Anderson, H. (2018). Using historic tag data to infer the geographic range of salmon river stocks likely to be taken by a coastal fishery. Scottish Marine and Freshwater Science Vol 9 No 6.

European Commission (2021) 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. Available from: https://ec.europa.eu/environment/nature/natura2000/management/pdf/methodological-guidance_2021-10/EN.pdf [Accessed 18/06/2022].

Friedland KD, Dannewitz J, Romakkaniemi A, Palm S, Pulkkinen H, Pakarinen T, Oeberst R (2017) Post-smolt survival of Baltic salmon in context to changing environmental conditions and predators. *ICES J Mar Sci* 74:1344–1355

Garthe, S and Hüppop, O. (2004). Scaling possible adverse effects of marine wind farms on seabirds: developing and applying a vulnerability index. Journal of Applied Ecology 41: 724-734. Available from: https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/j.0021-8901.2004.00918.x [Accessed 18/06/2022].

Gillson, J.P., Bašić, T., Davison, P.I., Riley, W.D., Talks, L., Walker, A.M. and Russell, I.C., (2022). A review of marine stressors impact effecting Atlantic salmon *Salmo salar*, with an assessment of the major threats to English stocks. *Reviews in Fish Biology and Fisheries*, pp.1-41.

Harding, H., Bruintjes, R., Radford, A.N. and Simpson, S.D. (2016) Measurement of Hearing in the Atlantic salmon (Salmo salar) using Auditory Evoked Potentials, and effects of Pile Driving Playback on salmon Behaviour and Physiology. *Scottish Marine and Freshwater Science* Vol 7 No 11: 47pp.

IAMMWG, (2015), Management Units for cetaceans in UK waters (January 2015), JNCC Report No. 547, JNCC, Peterborough, ISSN 0963-8091.

IAMMWG. 2022. Updated abundance estimates for cetacean Management Units in UK waters (Revised 2022). JNCC Report No. 680, JNCC Peterborough, ISSN 0963-8091.

Langston, R.H.W. (2010). Offshore wind farms and birds: Round 3 zones, extensions to Round 1 & Round 2 sites & Scottish Territorial Waters. RSPB Research Report No. 39. RSPB, Sandy. Available from: https://www.rspb.org.uk/globalassets/downloads/documents/positions/climate-change/wind-power-publications/offshore-wind-farms-and-birds.-round-3-zones-extensions-to-round-1-and-round-2-sites--scottish-territorial-waters.pdf [Accessed 18/06/2022].

Leopold, M.F. & Camphuysen, C.J. (2007). Did the pile driving during the construction of the Offshore Wind farm Egmond aan Zee, the Netherlands, impact local seabirds? Report CO62/07. Wageningen IMARES Institute for Marine Resources & Ecosystem Studies. Available from: https://www.researchgate.net/publication/40106456_Did_the_pile_driving_during_the_construction_of_the_Offshore_Wind_Farm_Egmond_aan_Zee_the_Netherlands_imapct_local_seabirds [Accessed 28/07/2022].

Main, R.A.K. (2021). Migration of Atlantic salmon (*Salmo salar*) smolts and post-smolts from a Scottish east coast river. MSc(R) thesis. Available from: https://theses.gla.ac.uk/82089/7/2021mainmscr.pdf [Accessed 02/09/2022].

Malcom, A., Godfrey, J. and Youngson, A.F. (2010). Review of migratory routes and behaviour of Atlantic salmon, sea trout and European eel in Scotland's coastal environment: implications for the development of marine renewables. *Scottish Marine and Freshwater Science* Vol 1 No 14. Available from: https://www2.gov.scot/Resource/Doc/295194/0111162.pdf [Accessed 08/07/2022].

Masden E.A., Reeve, R., Desholm, M., Fox, A.D., Furness, R.W. and Haydon, D.T. (2012). Assessing the impact of marine wind farms on birds through movement modelling. Journal of the Royal Society Interface 9, 2120-2130. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3405758/ [Accessed 28/07/2022].

Masden, E.A., Haydon, D.T., Fox, A.D. and Furness, R.W. (2010). Barriers to movement: Modelling energetic costs of avoiding marine wind farms amongst breeding seabirds. Marine Pollution Bulletin 60, 1085-1091. Available from: https://docs.wind-watch.org/masden2010.pdf [Accessed 28/07/2022].

Mcilvenny, J., Youngson, A., Williamson, B.J., Gauld, N.R., Goddijn-Murphy, L. and D Villar-Guerra, D. (2021). Combining acoustic tracking and hydrodynamic modelling to study migratory behaviour of Atlantic salmon (Salmo Salar) smolts on entry into high-energy coastal waters. *ICES Journal of Marine Science*.

MS-LOT (2022). Scoping Opinion for West of Orkney Windfarm. Available from: https://marine.gov.scot/ml/west-orkney-wind-farm [Accessed 02/08/2022].

Newton, M, Main R and Adams, C. (2017). Atlantic Salmon Salmo Salar smolt movements in the Cromarty and Moray Firths, Scotland. LF000005-REP-1854. Available from: https://marine.gov.scot/sites/default/files/00534044.pdf [Accessed 06/09/2022].

Newton, M., Barry, J., Lothian, A., Main, R., Honkanen, H., Mckelvey, S., Thompson, P., Davies, I., Brockie, N., Stephen, A. and Murray, R.O.H. (2021). Counterintuitive active directional swimming behaviour by Atlantic salmon during seaward migration in the coastal zone. ICES Journal of Marine Science, 78, 1730-1743.

NS (NatureScot) (2020a). Atlantic salmon. Available from: https://www.nature.scot/plants-animals-and-fungi/fish/freshwater-fish/atlantic-salmon [Accessed 16/08/2022].

NS (NatureScot) (2020b). Lamprey. Available from: https://www.nature.scot/plants-animals-and-fungi/fish/freshwater-fish/lamprey [Accessed 08/08/2022].

Ounsley JP, Gallego A, Morris DJ & Armstrong JD (2020). Regional variation in directed swimming by Atlantic salmon smolts leaving Scottish waters for their oceanic feeding grounds — a modelling study. *ICES Journal of Marine Science* 77: 315–325.

Petersen, I.K. & Fox, A.D. (2007). Changes in bird habitat utilisation around the Horns Rev 1 offshore wind farm, with particular emphasis on Common Scoter Report Commissioned by Vattenfall. Available from: https://tethys.pnnl.gov/sites/default/files/publications/Petersen_and_Fox_2007.pdf [Accessed 28/07/2022].

Petersen, I.K., Christensen, T.K., Kahlert, J., Desholm, M. and Fox, A.D. (2006). Final results of bird studies at the offshore wind farms at Nysted and Horns Rev, Denmark. NERI report commissioned by DONG energy and Vattenfall A/S 2006. Available from: https://www.semanticscholar.org/paper/Final-results-of-bird-studies-at-the-offshore-wind-Petersen-Christensen/d44993fbfe32e1341128eebddd8535cbd579679c [Accessed 28/07/2022].

Scottish Government (2018). Marine Scotland Consenting and Licensing Guidance For Offshore Wind, Wave and Tidal Energy Applications. Available from: https://www.gov.scot/binaries/content/documents/govscot/publications/consultation-paper/2018/10/marine-scotland-consenting-licensing-manual-offshore-wind-wave-tidal-energy-applications/documents/00542001-pdf/00542001-pdf/govscot%3Adocument/00542001.pdf [Accessed 28/06/2022].

Scottish Government (2020a). EU Exit: habitats regulations in Scotland. Available from: https://www.gov.scot/publications/eu-exit-habitats-regulations-scotland-2/ [Accessed 28/02/2022].

Scottish Government (2020b). Offshore wind energy in Scottish Waters – regional locational guidance. Available from: https://www.gov.scot/publications/sectoral-marine-plan-regional-locational-guidance/documents/ [Accessed 16/08/2022].

SNH (n.d.). The handling of mitigation in Habitats Regulations Appraisal – the People Over Wind CJEU judgement. Available from: https://www.nature.scot/sites/default/files/2019-08/Guidance%20Note%20-%20The%20handling%20of%20mitigation%20in%20Habitats%20Regulations%20Appraisal%20-%20the%20People%20Over%20Wind%20CJEU%20judgement.pdf [Accessed 28/06/2022].

Speakman, J., Gray, H. & Furness, L. (2009). University of Aberdeen report on effects of offshore wind farms on the energy demands of seabirds. Report to the Department of Energy and Climate Change.

Tougaard, J., Hermannsen, L. and Madsen, P.T. (2020). How loud is the underwater noise from operating offshore wind turbines?. *The Journal of the Acoustical Society of America*, 148, 2885-2893.

Tyldesley, D. and Associates (2015). Habitats Regulations Appraisal: Guidance for Plan-making Bodies in Scotland. Available from: https://www.nature.scot/sites/default/files/2019-07/Habitats%20Regulations%20Appraisal%20of%20Plans%20-%20plan-making%20bodies%20in%20Scotland%20-%20Jan%202015.pdf [Accessed 18/06/2022].

Wernham, C.V., Toms, M.P., Marchant, J.H., Clark, J.A., Siriwardena, G.M. and Baillie, S.R. (eds). (2002). The Migration Atlas: Movements of the birds of Britain and Ireland. T. & A.D. Poyser, London.

Wildfowl & Wetlands Trust (Consulting) Ltd and MacArthur Green Ltd (2014). Strategic assessment of collision risk of Scottish offshore wind farms to migrating birds. *Scottish Marine and Freshwater Science Report* Vol 5 No 12. Available from: https://marine.gov.scot/data/strategic-assessment-collision-risk-scottish-offshore-wind-farms-migrating-birds [Accessed 28/07/2022].

Woodward, I., Thaxter, C.B., Owen, E. & Cook, A.S.C.P. (2019). Desk-based revision of seabird foraging ranges used for HRA screening. BTO research report number 724.

Youngson, A. Fishermen's Knowledge: Salmon in the Pentland Firth. Available from: https://caithness.dsfb.org.uk/files/2017/06/FCRTThe-Fishmongers-Company-reportfinal-version.pdf [Accessed 08/07/2022].

APPENDIX A ACRONYMS

TERM	DEFINITION
BDMPS	Biologically Defined Minimum Population Scales
CES	Crown Estate Scotland
cSAC	Candidate Special Area of Conservation
DECC	Department of Energy and Climate Change
EDR	Effective Deterrence Range
EMF	Electromagnetic Field
FAD	Fish Aggregation Device
GW	Gigawatt
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Appraisal
INNS	Invasive Non-Native Species
INTOG	Innovation and Targeted Oil and Gas
IROPI	Imperative Reasons of Overriding Public Interest
LSE	Likely Significant Effect
MHWS	Mean High Water Springs
MS-LOT	Marine Scotland Licensing Operations Team
NM	Nautical Mile
NS	NatureScot

TERM	DEFINITION
OAA	Option Agreement Area
OIC	Orkney Islands Council
OREI	Offshore Renewable Energy Installation
OSP	Offshore Substation Platform
OWPL	Offshore Wind Power Limited
PDE	Project Design Envelope
PO	Plan Option
PPA	Power Purchase Agreement
pSPA	Potential Special Protection Area
RIAA	Report to Inform Appropriate Assessment
SAC	Special Area of Conservation
SCI	Site of Community Importance
SNCB	Statutory Nature Conservation Body
SNH	Scottish Natural Heritage
SOPEP	Shipboard Oil Pollution Emergency Plan
SPA	Special Protection Area
SSC	Suspended Sediment Concentrations
SSSI	Site of Special Scientific Interest
THC	The Highland Council

TERM	DEFINITION
WTG	Wind Turbine Generator
ZOI	Zone of Influence

APPENDIX B GLOSSARY

ACRONYM	DEFINITION
Annex I habitat	A habitat listed under Annex I of the Habitats Directive (Council Directive 92/43/EEC). Annex I habitats can be designated as a qualifying feature of a Special Area of Conservation (SAC), to ensure the conservation of these habitats. The protection of Annex I habitats within SACs persists in UK law following EU Exit.
Annex II species	A species listed under Annex II of the Habitats Directive (Council Directive 92/43/EEC). Annex II species can be designated as a qualifying feature of a Special Area of Conservation (SAC), to ensure the conservation of these species. The protection of Annex II species within SACs persists in UK law following EU Exit.
Competent authority	Authority granting consent.
European site	Special Areas of Conservation (SAC), Special Protection Areas (SPAs) and Sites of Community Importance (SCI) that were originally designated under EU legislation. Prior to the UK's withdrawal from the EU, the UK's European sites contributed to the Natura 2000 and were referred to as Natura 2000 sites. They now are part of the UK's National Site Network.
Habitats Regulations	Collectively the term used to refer to the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) - applicable to Marine Licence applications out to the 12 nautical mile (NM) limit, the Conservation of Offshore Marine Habitats and Species Regulations 2017 – applicable to Marine Licence applications between the 12 and 200 NM limits, and the Conservation of Habitats and Species Regulations 2017 (as amended) – applicable to Section 36 Consent applications.
Habitats regulations appraisal	Process of the identification and assessment of the potential for a development to have an adverse effect on the integrity of a European site.
LSE	Any effect of a plan or project that may affect the conservation objectives of the qualifying features for a European site which cannot be ruled out on the basis of objective information, either individually or in combination with other plans and projects (Tyldesley *et al.*, 2015).
Offshore Project	The entire offshore Project, including all offshore components seaward of mean high-water springs (MHWS) (turbines, cables, foundations, offshore substation platform and all other associated infrastructure) and all project stages from development to decommissioning.
Project	The entire offshore and onshore Projects associated, including all offshore components and onshore components and all project stages from development to decommissioning.