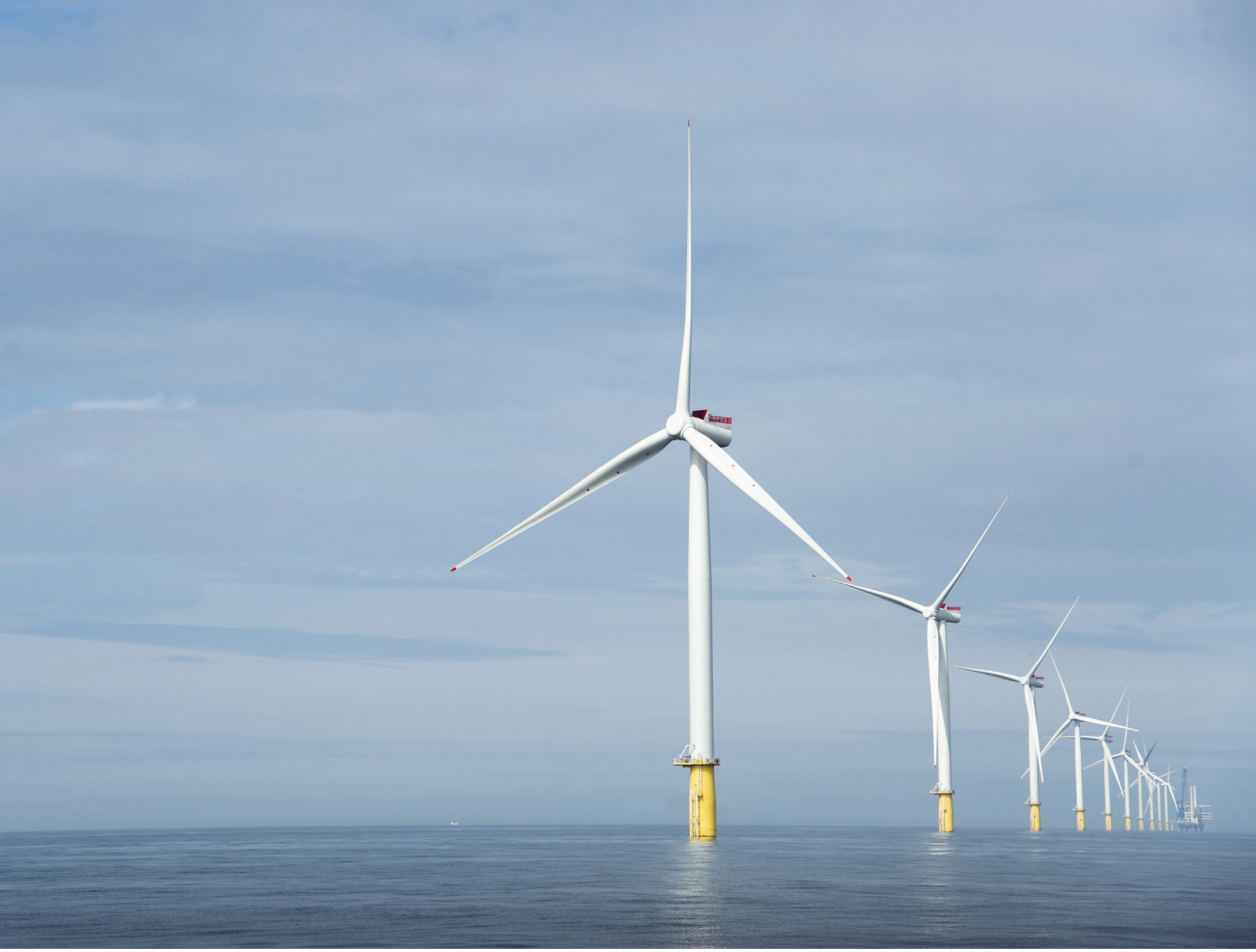

Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Appendix 2 - Habitats Regulations Assessment Screening Matrices

August 2022
Document Reference: 5.4.2
APFP Regulation: 5(2)(g)

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Title: **Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects DCO Application** **Appendix 2 Habitats Regulations Assessment Screening Matrices**		
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August 2022	**Final**	
Prepared by: **Royal HaskoningDHV**		
Approved by: **Sarah Chandler, Equinor**	Date: August 2022	

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Glossary of Acronyms

BDMPS	Biologically Defined Minimum Population Scales
DEP	Dudgeon Offshore Wind Farm Extension Project
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
EPP	Evidence Plan Process
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Assessment
JNCC	Joint Nature Conservation Committee
km	Kilometre
LSE	Likely Significant Effects
MU	Management Unit
pSPA	Proposed Special Protected Area
RIAA	Report to Inform Appropriate Assessment
SAC	Special Area of Conservation
SCI	Site of Community Importance
SEP	Sheringham Shoal Offshore Wind Farm Extension Project
SPA	Special Protected Area
UK	United Kingdom
UXO	Unexploded Ordinance
ZoI	Zone of Influence

Glossary of Terms

Dudgeon Offshore Wind Farm Extension Project (DEP)	The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
DEP offshore site	The Dudgeon Offshore Wind Farm Extension consisting of the DEP wind farm site, interlink cable corridors and offshore export cable corridor (up to mean high water springs).
DEP onshore site	The Dudgeon Offshore Wind Farm Extension onshore area consisting of the DEP onshore substation site, onshore cable corridor, construction compounds, temporary working areas and onshore landfall area.
DEP North array area	The wind farm site area of the DEP offshore site located to the north of the existing Dudgeon Offshore Wind Farm
DEP South array area	The wind farm site area of the DEP offshore site located to the south of the existing Dudgeon Offshore Wind Farm
DEP wind farm site	The offshore area of DEP within which wind turbines, infield cables and offshore substation platform/s will be located and the adjacent Offshore Temporary Works Area. This is also the collective term for the DEP North and South array areas.
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive. This includes candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, potential Special Protection Areas, Special Protection Areas, Ramsar sites, proposed Ramsar sites and sites compensating for damage to a European site and is defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017, although some of the sites listed here are afforded equivalent policy protection under the National Planning Policy Framework (2021) (paragraph 176) and joint Defra/Welsh Government/Natural England/NRW Guidance (February 2021).
Offshore cable corridors	This is the area which will contain the offshore export cables or interlink cables, including the adjacent Offshore Temporary Works Area.
Offshore export cable corridor	This is the area which will contain the offshore export cables between offshore substation platform/s and landfall, including the adjacent Offshore Temporary Works Area.

Offshore export cables	The cables which would bring electricity from the offshore substation platform(s) to the landfall. 220 – 230kV.
Offshore scoping area	An area presented at Scoping stage that encompassed all planned offshore infrastructure, including landfall options at both Weybourne and Bacton, allowing sufficient room for receptor identification and environmental surveys. This has been refined following further site selection and consultation for the PEIR and ES.
Offshore substation platform (OSP)	A fixed structure located within the wind farm site/s, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
Onshore cable corridor	The area between the landfall and the onshore substation sites, within which the onshore cable circuits will be installed along with other temporary works for construction.
Sheringham Shoal Offshore Wind Farm Extension Project (SEP)	The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
SEP offshore site	Sheringham Shoal Offshore Wind Farm Extension consisting of the SEP wind farm site and offshore export cable corridor (up to mean high water springs).
SEP onshore site	The Sheringham Shoal Wind Farm Extension onshore area consisting of the SEP onshore substation site, onshore cable corridor, construction compounds, temporary working areas and onshore landfall area.
SEP wind farm site	The offshore area of SEP within which wind turbines, infield cables and offshore substation platform/s will be located and the adjacent Offshore Temporary Works Area.

1 INTRODUCTION

1. This document provides the **Report to Inform Appropriate Assessment (RIAA)** (document reference 5.4) screening matrices for the proposed Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP). The matrices use the information provided in the April 2021 **Appendix 1 Habitats Regulations Assessment (HRA) Screening Report** (document reference 5.4.1) but also incorporate any updates to the screening outcomes as the consultation on likely significant effects and associated assessments have developed through the pre-application period (see further details in **Section 2.2**). As such this document presents the "final version" of the Stage 1 screening outcomes, in line with Planning Inspectorate Advice Note 10 (Planning Inspectorate 2022).

2 SCREENING MATRICES

2.1 Effects Considered

2. Potential effects upon the European sites which are considered within the HRA screening exercise are provided in **Table 2-1**. In some instances the description of potential effects has evolved since screening was undertaken in April 2021 which is reflected in **Table 2-1** and assessed in the RIAA.

Table 2-1: Potential Effects considered in Screening

Site Type	Feature(s)	Potential Effects
Special Protection Area (SPA)	All birds	Offshore effects: • Direct disturbance and displacement due to work activity, presence of turbines and other infrastructure, vessel movements and lighting • Barrier effects due to the presence of turbines • Collision risk due to the presence of turbines • Indirect impacts through effects on habitats and prey species • In-combination Onshore effects: • Direct effects to designated nature conservation sites and associated qualifying features • Indirect effects (e.g. noise, dust, groundwater supply) to designated nature conservation sites and associated qualifying features • Direct effects (permanent and temporary loss) to habitats due to the footprint of the onshore works • Direct and indirect effects (disturbance – noise, lighting etc / potential killing) to ex-situ habitats and protected species • Spread of invasive non-native species as a result of construction activities • In-combination effects
Special Area of Conservation / Site of Community	Benthic habitats	• Temporary physical disturbance* • Temporary habitat loss* • Permanent/long-term habitat loss* • Increased suspended sediment concentrations • Re-mobilisation of contaminated sediments • Effects on bedload sediment transport

Site Type	Feature(s)	Potential Effects
Importance (SAC/SCI)		• Underwater noise and vibration • Changes to physical processes resulting in changes to sediment supply • Colonisation of foundations and cable protection* • Invasive species* • Electromagnetic fields EMF* • In-combination effects * There are no SACs designated for benthic features within the direct footprint of SEP or DEP, therefore there are no sites that will be directly impacted during construction, operation or decommissioning. Therefore, no sites are screened in for direct effects. These include temporary physical disturbance, temporary and permanent/long-term habitat loss, colonisation of foundations and cable protection, invasive species and EMF effects
	Marine mammals	• Underwater noise (including, piling and other construction activities, vessels, O&M activities, operational turbines and decommissioning activities) and barrier effects • Unexploded ordnance (UXO) clearance (separate marine licence) • Vessel interaction (increased collision risk) • Disturbance at seal haul-out sites • Disturbance of foraging seals at sea • Changes to water quality • Changes to prey availability • In-combination effects
	Fish	• Temporary physical disturbance (of sea bed habitat, spawning or nursery grounds during intrusive works) * • Temporary habitat loss* • Permanent/long-term habitat loss* • Increased suspended sediments and sediment re-deposition • Re-mobilisation of contaminated sediment during intrusive works • Underwater noise impacts to acoustically sensitive species during foundation piling • Effects from EMF* • Impacts on commercially exploited species associated with their displacement from the area of activity / works • In-combination effects * There are no SACs designated for fish features within the direct footprint of SEP or DEP, therefore there are no sites that will be directly impacted during construction, operation or decommissioning. Therefore, no sites are screened in for direct effects. These include temporary physical disturbance, temporary and permanent/long-term habitat loss and EMF effects

Site Type	Feature(s)	Potential Effects
	Terrestrial	• Direct impacts to statutory and non-statutory designated nature conservation sites and associated qualifying features • Indirect impacts (e.g. noise, dust, groundwater supply) to statutory and non-statutory designated nature conservation sites and associated qualifying features • Direct impacts (permanent and temporary loss) to habitats due to the footprint of the onshore works • Direct and indirect impacts (disturbance – noise, lighting etc / potential killing) to adjacent habitats and protected species • Spread of invasive non-native species as a result of construction activities • In-combination effects

2.2 Sites Considered

3. The methodology for screening of sites and effects is discussed in **Appendix 1 Habitats Regulations Screening Report** (document reference 5.4.1).

4. Since the initial HRA screening exercise was undertaken in April 2021 and as the consultation on likely significant effects and associated assessments have developed through the pre-application period, there have been a number of changes to the original screening conclusions (which are not reflected in **Appendix 1 Habitats Regulations Screening Report**). The following changes to screening conclusions have been reflected in the **RIAA**:

- SPAs:
  - Pentland Firth proposed SPA (pSPA) was screened out as it was withdrawn as a pSPA following NatureScot's and JNCC's final advice and recommendations to Scottish Ministers on the proposals to classify a network of marine pSPAs (NatureScot, 2019);
  - Fetlar SPA was screened out because no relevant qualifying features have connectivity with SEP and DEP;
  - Outer Thames Estuary SPA (red-throated diver feature) was screened in because project vessels will transit through its northern extremity between SEP and DEP and the port at Great Yarmouth.
- Moray Firth SAC: During the HRA screening undertaken in April 2021, it was considered that no bottlenose dolphin designated sites had the potential for connectivity with SEP and DEP, and therefore were not screened in for further assessment. However, since the HRA screening undertaken in April 2021, there has been a recent increase in presence of the bottlenose dolphin along the north-east coast of England. Therefore, as a precautionary approach, it has been assumed that bottlenose dolphin off the east coast of England could be from the Moray Firth SAC and as such this designated site has been assessed further.

- Broadland Ramsar: This site is screened in for migratory waterbird features which are at potential risk of collision. However, following further consideration with respect to potentital disturbance effects on qualifying features, the Zone of Influence (ZoI) for potential disturbance effects associated with the Broadland Ramsar would be no greater than 5km. As Broadland Ramsar is 8.9km from the Order limits, no LSE has been concluded for this site and it was screened out from further assessment (see **Table 3-2** of **Appendix 1 HRA Screening Report** for definitions of the potential ZoI).

5. **Table 2-2** below provides a complete list of the sites included in screening. Transboundary sites are denoted by grey shaded rows in **Table 2-2** and with a grey background against each site name in the screening matrix tables.

Table 2-2: Sites Included in Screening (Shaded Rows Denote Transboundary Sites)

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
1	Abers - Côtes des légendes SAC (France)		✓			
2	Agger Tange, Nissum Bredning, Skibsted Fjord og Agerø SAC (Denmark)		✓			
3	Ålborg Bugt, Randers Fjord Og Mariager Fjord SAC (Denmark)		✓			
4	Alde, Ore and Butley Estuaries SAC			✓		
5	Alde-Ore Estuary SPA & Ramsar	✓				
6	Anholt og havet nord for SAC (Denmark)		✓			
7	Archipel des Glénan SAC (France)		✓			
8	Auskerry	✓				
9	Baie De Canche Et Couloir Des Trois Estuaires SAC (France)		✓		✓	
10	Baie de Morlaix SAC (France)		✓			

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
11	Baie de Seine Occidentale SAC (France)		✓			
12	Baie de Seine Occidentale SPA (France)	✓				
13	Baie de Seine Orientale SAC (France)	✓	✓			
14	Baie du Mont Saint-Michel SAC (France)		✓			
15	Balgö SAC (Sweden)		✓			
16	Bancs Des Flandres SAC (France)		✓	✓		
17	Benacre to Easton Bavents SPA	✓				
18	Berwickshire and North Northumberland Coast SAC		✓	✓		
19	Borkum-Riffgrund SAC (Netherlands and Germany)		✓		✓	
20	Breydon Water SPA & Ramsar	✓				
21	Broadland SPA & Ramsar	✓				
22	Buchan Ness to Collieston Coast SPA	✓				
23	Calf of Eday SPA	✓				
24	Cap Sizun SAC		✓			
25	Chausey SAC (France)	✓	✓			
26	Chaussée de Sein SAC (France)		✓			
27	Copinsay SPA	✓				
28	Coquet Island SPA	✓				

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
29	Côte de Granit Rose-Sept Iles SAC (France)		✓			
30	Côtes de Crozon (France)		✓			
31	Doggerbank SAC		✓			
32	Dornoch Firth and Morrich More SAC		✓			
33	Dråby Vig SAC (Denmark)		✓			
34	Duinen Ameland (Netherlands)		✓			
35	Duinen en Lage Land Texel (Netherlands)		✓			
36	Duinen Goeree & Kwade Hoek (Netherlands)		✓			
37	Duinen Vlieland (Netherlands)		✓			
38	Dünenlandschaft Süd-Sylt SAC (Germany)		✓			
39	Dunes De La Plaine Maritime Flamande SAC (France)		✓	✓		
40	Dunes de l'Authie et Molliéres de Berck (France)		✓			
41	East Caithness Cliffs SPA	✓				
42	East Mainland Coast, Shetland pSPA	✓				
43	Estuaire de la Canche, dunes picardes plaquées sur l'ancienne falaise, forêt d'Hardelot et falaise d'Equihen SAC (France)		✓			

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
44	Estuaire de la Seine SCI (France)		✓			
45	Estuaires et Littoral Picards (baies de Somme et d'Authie) SAC (France)		✓		✓	
46	Fair Isle SPA	✓				
47	Falaise du Bessin Occidental SPA (France)	✓				
48	Falaises du Cran Aux Oeufs et du Cap Gris-Nez, Dunes du Chatelet, Marais de Tardinghen et Dunes de Wissant SAC (France)		✓	✓		
49	Faray and Holm of Faray SAC		✓			
50	Farne Islands SPA	✓				
51	Firth of Tay & Eden Estuary SPA & Ramsar	✓				
52	Firth of Tay & Eden Estuary SAC		✓			
53	Flamborough and Filey Coast SPA	✓				
54	Forth Islands SPA	✓				
55	Foula SPA	✓				
56	Fowlsheugh SPA	✓				
57	Gibraltar Point SPA & Ramsar	✓				
58	Great Yarmouth North Denes SPA	✓				
59	Greater Wash SPA	✓				
60	Grevelingen SAC (Netherlands)		✓			
61	Gule Rev SCI (Denmark)		✓			

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
62	Gullmarsfjorden SAC (Sweden)		✓			
63	Haisborough, Hammond and Winterton SAC			✓		
64	Hallands Väderö (Sweden)		✓			
65	Hamburgisches Wattenmeer SCI (Germany)		✓			
66	Haringvliet SAC (Netherlands)				✓	
67	Havet og kysten mellem Praestø Fjord og Grønsund (Denmark)					
68	Havet Omking Norde Ronner SAC (Denmark)		✓			
69	Helgoland mit Helgoländer Felssockel SAC (Germany)		✓			
70	Hermaness, Saxa Vord and Valla Field SPA	✓				
71	Hesselø med omliggende stenrev SAC (Denmark)		✓			
72	Hirsholmene, havet vest herfor og Ellinge Å's udløb SAC (Denmark)		✓			
73	Hornsea Mere SPA	✓				
74	Hoy SPA	✓				
75	Humber Estuary SAC		✓	✓	✓	
76	Humber Estuary SPA & Ramsar	✓				
77	Hund und Paapsand SCI (Germany)		✓			

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
78	Imperial Dock Lock, Leith SPA	✓				
79	Inner Dowsing, Race Bank and North Ridge SAC			✓		
80	Isle of May SAC		✓			
81	Klaverbank SAC (Netherlands)		✓			
82	Kosterfjorden-Väderöfjorden SAC (Sweden)		✓			
83	Kungsbackafjorden SAC (Sweden)		✓			
84	Küsten- und Dünenlandschaften Amrums SAC (Germany)		✓			
85	Littoral Seino-Marin SPA (France)	✓				
86	Loch of Strathbeg SPA & Ramsar	✓				
87	Løgstør Bredning, Vejlerne og Bulbjerg SAC (Denmark)		✓			
88	Lovns Bredning, Hjarbæk Fjord og Skals, Simested og Nørre Ådal, Skravad Bæk SAC (Denmark)		✓			
89	Malmöfjord SAC (Sweden)		✓			
90	Marais du Cotentin et du Bessin - Baie des Veys SAC (France)		✓			
91	Marwick Head SPA	✓				
92	Måseskär SAC (Sweden)		✓			
93	Minsmere-Walberswick SPA & Ramsar	✓				

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
94	Moray Firth SAC		✓			
95	Mousa SPA	✓				
96	Mousa SAC		✓			
97	Nationalpark Niedersächsisches Wattenmeer SAC (Germany)		✓			
98	Nene Washes	✓				
99	Nibe Bredning, Halkær Ådal og Sønderup Ådal SAC		✓			
100	Nidingen SAC (Sweden)		✓			
101	Noordzeekustzone SAC (Netherlands)		✓	✓	✓	
102	Nordre älvs estuarium SAC (Sweden)		✓			
103	Nordvästra Skånes havsområde SAC (Sweden)		✓			
104	Norfolk Valley Fens SAC					✓
105	North Caithness Cliffs SPA	✓				
106	North Norfolk Coast SPA & Ramsar	✓				
107	North Norfolk Sandbanks and Saturn Reef SAC			✓		
108	Northumberland Marine SPA	✓				
109	Northumbria Coast SPA & Ramsar	✓				
110	Noss SPA	✓				
111	NTP S-H Wattenmeer und angrenzende Küstengebiete SAC (Germany)		✓			

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
112	Oosterschelde SAC (Netherlands)		✓			
113	Orfordness - Shingle Street SAC			✓		
114	Östliche Deutsche Bucht SAC (Germany)	✓				
115	Ouessant-Molène SAC (France)		✓			
116	Ouse Washes SPA	✓				
117	Outer Firth of Forth and St Andrews Bay complex SPA	✓				
118	Outer Thames Estuary SPA	✓				
119	Overstrand Cliffs SAC					✓
120	Papa Stour SPA	✓				
121	Papa Westray (North Hill and Holm) SPA	✓				
122	Pater Noster-skärgården SAC (Sweden)		✓			
123	Pentland Firth Islands SPA	✓				
124	Presqu'ile de Crozon SAC (France)		✓			
125	Récifs et marais arrière-littoraux du Cap Lévi à la Pointe de Saire SAC (France)		✓			
126	Récifs Gris-Nez Blanc-Nez SAC (France)		✓	✓		
127	Ridens et dunes hydrauliques du détroit du Pas-de-Calais SAC (France)		✓	✓		
128	River Derwent SAC				✓	
129	River Wensum SAC					✓

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
130	Roches de Penmarch (France)		✓			
131	Ronas Hill - North Roe and Tingon SPA	✓				
132	Rousay SPA	✓				
133	Sälöfjorden SAC (Sweden)		✓			
134	Sanday SAC		✓			
135	SBZ 1 / ZPS 1 SAC (Netherlands)		✓			
136	Scapa Flow pSPA	✓				
137	Seas off Foula SPA	✓				
138	Seevogelschutzgebiet Helgoland SPA (Germany)	✓				
139	Skagens Gren og Skagerrak SAC (Denmark)		✓			
140	Soteskär SAC (Sweden)		✓			
141	Southern North Sea SAC		✓			
142	St Abb`s Head to Fast Castle SPA	✓				
143	Steingrund SAC		✓			
144	Store Rev SCI (Denmark)		✓			
145	Stour and Orwell Estuaries SPA & Ramsar	✓				
146	Strandenge på Læsø og havet syd herfor SAC (Denmark)		✓			
147	Sumburgh Head SPA	✓				
148	Sydlige Nordsø SAC (Denmark)		✓			
149	Sylter Außenriff SCI (Germany)	✓	✓		✓	

SEP and DEP Reference Number	Designated Site	Ornithology	Marine Mammals	Benthic Habitats	Fish	Terrestrial
150	Teesmouth and Cleveland Coast SPA & Ramsar	✓				
151	The Broads SAC & SPA					✓
152	The Wash and North Norfolk Coast SAC		✓	✓		
153	The Wash SPA & Ramsar	✓				
154	Tregor Goëlo SAC (France)		✓			
155	Troup, Pennan and Lion`s Heads SPA	✓				
156	Unterems und Außenems SCI (Germany)		✓			
157	Vadehavet med Ribe Å, Tved Å og Varde Å vest for Varde SAC (Denmark)		✓			
158	Venø, Venø Sund SAC (Denmark)		✓			
159	Vlaamse Banken SAC (Netherlands)		✓			
160	Vlakte van de Raan SCI/SAC (Netherlands)		✓			
161	Voordelta SAC and SPA (Netherlands)	✓	✓			
162	Vrångöskärgården SAC (Sweden)		✓			
163	Waddenzee SAC (Netherlands)		✓			
164	West Westray SPA	✓				
165	Yell Sound Coast SAC		✓			
166	Ythan Estuary, Sands of Forvie and Meikle Loch SPA	✓				

2.3 Assessment of Potential Effects

6. A summary of the evidence presented in the determination of the risk of likely significant effects (LSE) on the relevant qualifying features of a site is detailed within the footnotes to the screening matrices below.

7. The following abbreviations are used within the screening matrices:

- Y = LSE cannot be excluded
- N = LSE can be excluded
- C = construction
- O = operation
- D = decommissioning

8. Where effects are not applicable to a particular feature they are greyed out.

Site	1
Name of European Site:	Abers - Côtes Des Legendes SAC
Distance to SEP and DEP (km)	631 and 647

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal, *Halichoerus grypus*	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seals can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	2
Name of European Site:	Agger Tange, Nissum Bredning, Skibsted Fjord og Agerø SAC
Distance to SEP and DEP (km)	592 and 568
Marine Mammals	

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal, *Phoca vitulina*	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of **Appendix 1 HRA Screening Report**).

Site	3
Name of European Site:	Ålborg Bugt, Randers Fjord og Mariager Fjord SAC
Distance to SEP and DEP (km)	684 and 663
Marine Mammals	

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal, *Phoca vitulina*	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	**N (a)**

a) **T**he distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of **Appendix 1 HRA Screening Report**).

Site	**4**
Name of European Site:	**Alde, Ore and Butley Estuaries SAC**
Distance to SEP and DEP (km)	**104 and 110**
Offshore habitats	

Site Features	Likely effect(s) of SEP and DEP																	
	Permanent / long term loss			Temporary physical disturbance / habitat loss			Increased suspended sediment and sediment re-deposition			Re-mobilisation of contaminated sediments			Underwater noise and vibration			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Mudflats and sandflats not covered by seawater at low tide	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)
Estuaries	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)
Atlantic Salt Meadows	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)

a) Outside potential ZoI (**Table 4-2** of **HRA Screening Report**).

Site	**5**
Name of European Site:	**Alde-Ore Estuary SPA and Ramsar**
Distance to SEP and DEP (km)	**104 and 110**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement / Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D

Site	5											
Name of European Site:	Alde-Ore Estuary SPA and Ramsar											
Distance to SEP and DEP (km)	104 and 110											
Breeding lesser black-backed gull		Y (a)			N (b)			N (b)			Y (a)	
Breeding marsh harrier and avocet		N (c)			N (c)			N (c)			N (c)	
Breeding little tern		N (d)			N (d)			N (d)			N (d)	
Breeding Sandwich tern		N (e)			N (e)			N (e)			N (e)	
Nonbreeding ruff		N (f)			N (f)			N (f)			N (f)	
Avocet, redshank		N (c)			N (c)			N (c)			N (c)	

a) SEP and DEP are within the mean maximum foraging range of breeding lesser black-backed gull from this SPA and Ramsar site (**Table 7-4** of the **HRA Screening Report**), meaning that there is a potential impact pathway for this population.
b) Evidence indicates that lesser black-backed gulls are not affected by displacement, disturbance or barrier effects at offshore wind farms (see **Chapter 11 Offshore Ornithology** (document reference 6.1.11).
c) The presence of other qualifying species from this SPA at the Projects will be sporadic at most during passage periods, and would result in negligible numbers passing through SEP and DEP. They are not anticipated at SEP and DEP during the breeding season due to their habitat preferences, and are therefore screened out.
d) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.
e) SEP and DEP are beyond maximum foraging range of breeding Sandwich tern from this SPA (**Table 7-4** of the **HRA Screening Report**), there is no impact pathway for this population. Whilst birds from the SPA will be present at SEP and DEP on migration, meaning an impact pathway does exist, the proportion of the population present is expected to be small (<0.1% of Sandwich terns present) compared with the wider Biologically Defined Minimum Population Scales (BDMPS) (Furness, 2015). This qualifying feature is therefore screened out.

Site	6														
Name of European Site:	Anholt og havet nord for SAC														
Distance to SEP and DEP (km)	762 and 740														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	7
Name of European Site:	Archipel des Glénan SAC

Distance to SEP and DEP (km)	687 and 702														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	8														
Name of European Site:	Auskerry														
Distance to SEP and DEP (km)	680 and 670														
Offshore Ornithology															
Site Features	Likely effect(s) of SEP and DEP														
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination					
	C	O	D	C	O	D	C	O	D	C	O	D			
Breeding European storm petrel		N (a)			N (a)			N (a)			N (a)				
Arctic tern		Y (b)									Y (b)				

a) European storm petrel was not recorded at SEP and DEP during the baseline surveys. There is no impact pathway for this qualifying feature, and it is therefore screened out.
b) SEP and DEP are beyond the maximum foraging range of breeding Arctic tern from this SPA (**Table 7-4** of the **HRA Screening Report**). There is therefore no impact pathway and this breeding arctic tern is screened out. However, outside the breeding season, the proportion of Arctic tern present at SEP and DEP that are estimated by Furness (2015) to be from this SPA is approximately 1.1%. This is considered sufficiently large for LSE to be a possibility; therefore, this qualifying feature is screened in.

Site	9																	
Name of European Site:	Baie de Canche et couloir des trois estuaires SAC																	
Distance to SEP and DEP (km)	279 and 286																	
Marine Mammals																		
Site Features	**Likely effect(s) of SEP and DEP**																	
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**					
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**			
Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)			
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)			
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)			
Fish																		
Site Features	**Likely effect(s) of SEP and DEP**																	
	Permanent / long term habitat loss			**Temporary physical disturbance / habitat loss**			**Increased suspended sediments and sediment re-deposition**			**Re- mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Impacts on commercially exploited species associated with their displacement from the area of activity / works**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Salmon	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)
Sea lamprey	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)
River lamprey	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)
Allis shad	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea Management Unit (MU) and is therefore screened out (**Section 6.1.2.1** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE.

Site	10														
Name of Europe Site:	**Baie De Morlaix SAC**														
Distance to SEP and DEP (km)	**591 and 606**														
Marine Mammals															
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(b)	N(b)	N(a)	N(b)	N(a)	N(b)	N(b)	N(b)	N(b)	N(b)		N(b)	N(b)	N(b)	N(b)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	11														
Name of European Site:	**Baie de Seine Occidentale SAC**														
Distance to SEP and DEP (km)	**416 and 423**														
Marine Mammals															
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour sea	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Section 6.1.2.1** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	12											
Name of European Site:	Baie de Seine Occidentale SPA											
Distance to SEP and DEP (km)	416 and 422											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement / Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding, wintering and passage waterbirds		N(a)			N(a)			N(a)			N(b)	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabird species at this SPA except for gannet (Table 7 4). Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from the Flamborough and Filey Coast SPA (Wakefield et al., 2013), it is considered highly unlikely that breeding birds from this SPA would regularly forage at DEP or SEP during the breeding season. Proportions of SPA seabird populations migrating through DEP and SEP outside the breeding season are expected to be small compared with the wider BDMPS (Furness, 2015). On this basis, all qualifying features are screened out.).

Site	13														
Name of European Site:	Baie de Seine Orientale SAC														
Distance to SEP and DEP (km)	420 and 432														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Bottlenose dolphin	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (see **Section 6.1.2.1** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) (**Table 6-4** of the **HRA Screening Report**).

Site	14														
Name of European Site:	Baie du Mont Saint-Michel SAC														
Distance to SEP and DEP (km)	514 and 527														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP offshore sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	15														
Name of European Site:	Balgö SAC														
Distance to SEP and DEP (km)	816 and 794														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	16
Name of European Site:	Bancs des Flandres SAC
Distance to SEP and DEP (km)	204 and 209

Marine Mammals

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

Benthic Habitats

Site Features	Permanent / long term loss			Temporary physical disturbance / habitat loss			Increased suspended sediment			Re- mobilisation of contaminated sediments			Underwater noise and vibration			Effects on bedload sediment transport			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Sandbanks which are slightly covered by sea water all the time	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (see **Section 6.1.2.1** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.
b) Outside potential ZoI (**Section 4.2** of the **HRA Screening Report**).

Site	**17**
Name of European Site:	**Benacre to Easton Bavents SPA**
Distance to SEP and DEP (km)	**80 and 82.7**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding Great bittern		N (a)			N (a)			N (a)			N (a)	
Breeding Eurasian marsh harrier		N (a)			N (a)			N (a)			N (a)	
Breeding Little tern		N (b)			N (b)			N (b)			N (b)	

a) These features of this SPA are unlikely to utilise SEP or DEP due to their habitat preferences. There is no impact pathway for these species and they are therefore screened out (**Table 7-5** of the **HRA Screening Report**).
b) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out

Site	18
Name of European Site:	Berwickshire and North Northumberland Coast SAC
Distance to SEP and DEP (km)	291 and 284

Marine Mammals

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

Benthic Habitats

Site Features	Permanent / long term loss			Temporary physical disturbance / habitat loss			Increased suspended sediment			Re-mobilisation of contaminated sediments			Underwater noise and vibration			Effects on bedload sediment transport			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Coastal lagoons	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)
Submerged or partially submerged sea caves	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).
b) Outside potential ZoI (**Section 4.2** of the **HRA Screening Report**).

Site	19
Name of European Site:	Borkum-Riffgrund (Borkum Reef Ground) SAC
Distance to SEP and DEP (km)	334 and 316

Marine Mammals

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

Fish

Site Features	Permanent / long term habitat loss			Temporary physical disturbance / habitat loss			Increased suspended sediment and sediment re-deposition			Re-mobilisation of contaminated sediments			Underwater noise and vibration			Impacts on commercially exploited species associated with their displacement from the area of activity / works			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Twaite shad	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Section 6.1.2.1** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE.

Site	**20**
Name of European Site:	**Breydon Water SPA and Ramsar**
Distance to SEP and DEP (km)	**59.2 and 61.4**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Non-breeding migratory waterbird features		Y (a)									Y (a)	
Breeding common tern		N (b)			N (b)			N (b)			N (b)	

a) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.

b) SEP and DEP are beyond the maximum foraging range of breeding common tern from this SPA, and therefore no impact pathway exists for this population. The presence of common tern at SEP and DEP from this SPA during passage periods in large numbers is considered unlikely as the SPA is located south of SEP and DEP (Furness, 2015). The common tern population of this SPA would represent approximately 0.1% of birds recorded at SEP and DEP during migration seasons. This qualifying feature is therefore screened out as despite an impact pathway being identified, potential impacts on such a small number of birds would not be sufficiently large to represent LSE.

Site	**21**
Name of European Site:	**Broadland SPA and Ramsar**
Distance to SEP and DEP (km)	**37.3 and 41.7 from the wind farm sites respectively and 8.9km from the onshore cable corridor**

Site Features	Likely effect(s) of SEP and DEP														
	Collision Risk			Displacement/Disturbance			Barrier Effect			Direct and indirect impacts and spread of invasive non-native species			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Breeding bittern and marsh harrier		N (a)			N (a)			N (a)						N (a)	

Non-breeding migratory waterbird features including Bewick's Swan and whooper swan		**Y (b)**												**Y (b)**		
Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* Calcium-rich fen dominated by great fen sedge (saw sedge). Alkaline fens Calcium-rich springwater-fed fens. Alluvial forests with *Alnus glutinosa* Fraxinus excelsior (Alno-*Padion, Alnion incanae, Salicion albae*)										N (c)	N (c)	N (c)				
Desmoulin`s whorl snail *Vertigo moulinsiana* Otter *Lutra lutra* Fen orchid *Liparis loeselii*										N (c)	N (c)	N (c)				

a) Breeding birds named as qualifying features of this SPA are unlikely to utilise SEP or DEP due to their habitat preferences. This means that no impact pathway has been identified and these qualifying features are therefore screened out.
b) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.
c) Outside potential ZoI and therefore screened out (see **Table 3-2** of **Appendix 1 HRA Screening Report**).

Site	**22**											
Name of European Site:	**Buchan Ness to Collieston Coast SPA**											
Distance to SEP and DEP (km)	**490 and 480**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage, including as named features kittiwake, shag, fulmar, guillemot, herring gull		N (a)			N (a)			N (a)			N (b)	

a) SEP and DEP are beyond the maximum foraging range of breeding guillemot, herring gull and shag (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for these qualifying features during the breeding season, which are therefore screened out. SEP and DEP are within the mean maximum foraging range of fulmar and the maximum foraging range of kittiwake from this SPA (**Table 7-4** of the **HRA Screening Report**). Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out. Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Kittiwake: Approximately 2.9% of birds present during autumn migration and 3.5% during spring migration.
   - Guillemot: Approximately 2.1% of birds present during non-breeding season.
   - Herring gull: Approximately 2.4% of birds present during non-breeding season.
   - Shag: Not present during non-breeding season.
   - Fulmar: Approximately 0.4% of birds present during autumn and spring migration seasons.

Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.

Site	**23**											
Name of European Site:	**Calf of Eday SPA**											
Distance to SEP and DEP (km)	**710 and 700**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features cormorant, fulmar, guillemot, kittiwake and great black-backed gull		N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (b)	N (b)	N (b)

a) SEP and DEP are beyond the maximum foraging range of all breeding seabirds included as qualifying features of this SPA except fulmar and kittiwake (**Table 7-4** of the **HRA screening Report**). For cormorant, great black-backed gull and guillemot, no impact pathway exists during the breeding season; these qualifying features are therefore screened out. Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Cormorant: Not present during the non-breeding season.
   - Great black-backed gull: Approximately 1.4% of birds present during non-breeding season.
   - Guillemot: Approximately 0.9% of birds present during non-breeding season.
   - Fulmar: Approximately 0.5% of birds present during autumn and spring migration seasons.
   - Kittiwake: Approximately 0.2% of birds present during autumn and spring migration seasons.

   Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore they are screened out.
b) The predicted effect attributable to SEP and DEP is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Calf of Eday SPA (see **Section 7.1.3** of the **HRA Screening Report**).

Site	**24**														
Name of European Site:	**Cap Sizun SAC**														
Distance to SEP and DEP (km)	**681 and 696**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**

Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**25**														
Name of European Site:	**Chausey SAC**														
Distance to SEP and DEP (km)	**496 and 509**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**26**														
Name of European Site:	**Chaussée de Sein SAC**														
Distance to SEP and DEP (km)	**701 and 716**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**27**											
Name of European Site:	**Copinsay SPA**											
Distance to SEP and DEP (km)	**670 and 660**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features fulmar, guillemot, kittiwake and great black-backed gull		N (a)			N (a)			N (a)			N (b)	

a) SEP and DEP are beyond the maximum foraging range of the breeding seabirds named as qualifying features of this SPA except fulmar and kittiwake (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for the other qualifying features during the breeding season; they are therefore screened out. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out. Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Guillemot: Approximately 0.8% of birds present during non-breeding season.
   - Kittiwake: Approximately 0.2% of birds present during autumn migration and 0.2% during spring migration.
   - Great black-backed gull: Approximately 1.1% of birds present during non-breeding season.
   - Fulmar: Approximately 0.5% of birds present during autumn and spring migration seasons.

   Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore they are screened out.

b) The predicted effect attributable to SEP and DEP is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Calf of Eday SPA (see **Section 7.1.3** of the **HRA Screening Report**).

Site	**28**											
Name of European Site:	**Coquet Island SPA**											
Distance to SEP and DEP (km)	**289 and 282**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding roseate tern		N (a)			N (a)			N (a)			N (a)	

Arctic tern, common tern, Sandwich tern		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**			

a) Roseate tern has not been recorded at SEP and DEP, meaning that there is no impact pathway for this species. It is therefore screened out.
b) SEP and DEP are beyond the maximum foraging range of breeding Sandwich tern, common tern and Arctic tern (**Table 7-4** of the **HRA Screening Report**). There is therefore no impact pathway for these qualifying features during the breeding season, and they are screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Arctic tern: Approximately 2.1% of birds present during autumn and spring migrations.
   - Common tern: Approximately 1.5% of birds present during autumn and spring migrations.
   - Sandwich tern: Approximately 5.1% of birds present during autumn and spring migrations.

   These proportions are all considered sufficiently large for these qualifying features to be screened in at these times of year.

Site	**29**														
Name of European Site:	**Côte De Granit Rose-Sept-Iles SAC**														
Distance to SEP and DEP (km)	**552 and 567**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**30**														
Name of European Site:	**Côtes de Crozon SAC**														
Distance to SEP and DEP (km)	**674 and 689**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**

Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**31**														
Name of European Site:	**Doggerbank SAC**														
Distance to SEP and DEP (km)	**313 and 290**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)		N(c)	N(c)	N(c)	N(c)

a) The distance between the potential impact range of the proposed project and the extent of any impact on individuals from this site are negligible and would result in no potential for LSE.

Site	**32**														
Name of European Site:	**Dornoch Firth and Morrich More SAC**														
Distance to SEP and DEP (km)	**598 and 590**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**33**														
Name of European Site:	**Dråby Vig SAC**														
Distance to SEP and DEP (km)	**636 and 613**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**34**														
Name of European Site:	**Duinen Ameland**														
Distance to SEP and DEP (km)	**291 and 273**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**35**														
Name of European Site:	**Duinen en Lage Land Texel**														
Distance to SEP and DEP (km)	**230 and 213**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**36**														
Name of European Site:	**Duinen Goeree & Kwade Hoek**														
Distance to SEP and DEP (km)	**226 and 219**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	37														
Name of European Site:	Duinen Vlieland														
Distance to SEP and DEP (km)	244 and 227														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	38														
Name of European Site:	Dünenlandschaft Süd-Sylt SAC														
Distance to SEP and DEP (km)	494 and 476														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	39
Name of European Site:	Dunes De La Plaine Maritime Flamande SAC

Distance to SEP and DEP (km)	234 and 237																	
Marine Mammals																		
Site Features	**Likely effect(s) of SEP and DEP**																	
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**					
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**			
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)			
Benthic Habitats																		
Site Features	**Permanent / long term loss**			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment**			**Re-mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Effects on bedload sediment transport**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Sandbanks which are slightly covered by sea water all the time	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)
Mudflats and sandflats not covered by seawater at low tide	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

b) Outside potential ZoI (**Section 4.2** of the **HRA Screening Report**).

Site	40																	
Name of European Site:	**Dunes de l'Authie et Mollières de Berck**																	
Distance to SEP and DEP (km)	**299 and 306**																	
Site Features	**Likely effect(s) of SEP and DEP**																	
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**					
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**			

Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**41**														
Name of European Site:	**East Caithness Cliffs SPA**														
Distance to SEP and DEP (km)	**620 and 610**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**					
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**			
Breeding seabird assemblage including as named features cormorant, razorbill, shag, and great black-backed gull		N (a)			N (a)			N (a)			N (a)				
Breeding kittiwake, guillemot, and razorbill		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**				
Breeding herring gull		N (c)			N (c)			N (c)			N (c)				

a) SEP and DEP are beyond the maximum foraging ranges of breeding seabirds except fulmar and kittiwake (**Table 7-4** of the **HRA Screening Report**). Other than fulmar and kittiwake, no impact pathway exists for the qualifying features of this SPA during the breeding season. They are therefore screened out. Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out.

b) Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Guillemot: Approximately 15.1% of birds present during non-breeding season.
   - Razorbill: Approximately 7.1% of birds present during autumn and spring migrations, and 4.3% of birds present during winter.
   - Herring gull: Approximately 2.9% of birds present during non-breeding season.
   - Kittiwake: Approximately 9.3% of birds present during autumn migration and 11.1% during spring migration.
   - Shag: Not present during non-breeding season.
   - Great black-backed gull: Approximately 0.9% of birds present during non-breeding season.
   - Cormorant: Not present during the non-breeding season.
   - Fulmar: Approximately 4.4% of birds present during autumn and spring migration seasons.

   The proportions of kittiwake (relevant to collision risk impacts), guillemot and razorbill (relevant to displacement impacts) predicted to be present in the SEP and DEP survey area outside the breeding season are sufficiently large for LSE to be considered a possibility; therefore, these qualifying features are screened in.

c) Herring gull is screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.

Site	42											
Name of European Site:	East Mainland Coast, Shetland pSPA											
Distance to SEP and DEP (km)	780 and 770											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Non-breeding migratory waterbird assemblage including as named features great northern diver and Slavonian grebe		N(a)			N(a)			N(a)			N(a)	
Breeding red-throated diver		**Y(b)**			**Y(b)**			**Y(b)**			**Y(b)**	

a) SEP and DEP are beyond the maximum foraging range of breeding red-throated diver at this SPA (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for these species during the breeding season and it is screened out. Great northern diver and Slavonian grebe were not recorded within the SEP and DEP survey area. There is therefore no impact pathway and these qualifying features can be screened out. Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying waterfowl species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out.

b) Outside the breeding season, the proportions of red-throated divers presumed to be present at SEP and DEP that are from this SPA (according to the wider relevant BDMPS of Furness (2015)) are large enough (7.8% during the winter, and 3.1% during autumn and spring migration seasons) for LSE to be possible. This qualifying feature is therefore screened in.

Site	43														
Name of European Site:	Estuaire De La Canche, Dunes Picardes Plaquees Sur L'ancienne Falaise, Foret D'hardelot Et Falaise D'equihen SAC														
Distance to SEP and DEP (km)	266 and 273														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	44														
Name of European Site:	Estuaire de la Seine SCI														
Distance to SEP and DEP (km)	404 and 413														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	45														
Name of European Site:	Estuaires et littoral picards (baies de Somme et d'Authie) SAC														
Distance to SEP and DEP (km)	300 and 307														
Marine Mammals															
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Bottlenose dolphin	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Fish															
Site Features	Likely effect(s) of SEP and DEP														
	Permanent / long term loss			Temporary physical disturbance / habitat loss			Increased suspended sediment and sediment re-deposition			Re- mobilisation of contaminated sediments			Underwater noise and vibration		
	Impacts on commercially exploited species associated with their			In-combination											

																displacement from the area of activity / works					
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
River lamprey	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE.

Site	**46**											
Name of European Site:	**Fair Isle SPA**											
Distance to SEP and DEP (km)	**720 and 710**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features Arctic skua, gannet, great skua, puffin, razorbill, Arctic tern, shag		N (a)			N (a)			N (a)			N (a)	
Breeding fulmar and kittiwake		N (a)			N (a)			N (a)			N (a)	
Breeding guillemot		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabirds included as qualifying features of this SPA except fulmar and kittiwake (**Table 7-4** of the **HRA Screening Report**). For all other qualifying features, no impact pathway exists during the breeding season; therefore, they are screened out. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out. Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP. Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:

- Arctic tern: Approximately <0.1% of birds present during autumn and spring migration seasons.
- Guillemot: Approximately 1.9% of birds present during non-breeding season.
- Puffin: Approximately 1.6% of birds present during non-breeding season.
- Razorbill: Approximately 0.5% of birds present during autumn and spring migration seasons, and 0.3% of birds present during winter season.
- Kittiwake: Approximately 0.2% of birds present during autumn and spring migration seasons.
- Great skua: Approximately 2.6% of birds present during autumn migration season and 0% of birds present during spring migration season.
- Arctic skua: Approximately 0.2% of birds present during autumn migration season and 0% of birds present during spring migration season.
- Shag: Not present during non-breeding season.
- Gannet: Approximately 2.5% of birds present during autumn migration season and 3.2% of birds present during spring migration season.
- Fulmar: Approximately 8.6% of birds present during autumn and spring migration seasons.

These proportions are considered sufficiently small for Arctic tern to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of birds present at SEP and DEP originating from this SPA are very low, so LSE can be ruled out and these qualifying features are screened out.

b) The proportion of guillemot predicted to be present in the SEP and DEP survey area at particular times of year is sufficiently large for LSE to be considered a possibility; therefore these qualifying features are screened in.

Site	47											
Name of European Site:	Falaise du Bessin Occidental SPA											
Distance to SEP and DEP (km)	441 and 450											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding seabird assemblage including as named features Arctic skua, fulmar, gannet, great skua, puffin, razorbill, Arctic tern, guillemot, kittiwake, shag		N (a)			N (a)			N (a)			N (a)	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabirds that are qualifying features of this SPA, and beyond the maximum foraging range of all species except fulmar (**Table 7-4** of the **HRA Screening Report**). Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). The proportions of the SPA population migrating through SEP and DEP outside the breeding season are expected to be small compared with the wider BDMPS (Furness, 2015). On this basis, all qualifying features are screened out.

Site	48																			
Name of European Site:	Falaises du Cran aux Oeufs et du Cap Gris-Nez, Dunes du Chatelet, Marais de Tardinghen et Dunes de Wissant SAC																			
Distance to SEP and DEP (km)	244 and 250																			
Marine Mammals																				
Site Features	Likely effect(s) of SEP and DEP																			
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination							
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D					
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)					
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)					
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)					
Bottlenose dolphin	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)					
Benthic Habitats																				
Site Features	Permanent / long term habitat loss			Temporary physical disturbance / habitat loss			Increased suspended sediment			Re-mobilisation of contaminated sediments			Underwater noise and vibration			Effects on bedload sediment transport			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D

Sandbanks which are slightly covered by sea water all the time	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)
Mudflats and sandflats not covered by seawater at low tide	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)
Reefs	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Section 6.1.2.1** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.
b) Outside potential ZoI (see **Section 4.2** of the **HRA Screening Report**).

Site	**49**														
Name of European Site:	**Faray and Holm of Faray SAC**														
Distance to SEP and DEP (km)	**705 and 696**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**50**											
Name of European Site:	**Farne Islands SPA**											
Distance to SEP and DEP (km)	**318 and 310**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Roseate Tern		N (a)			N (a)			N (a)			N (b)	
Common tern		N (b)			N (b)			N (b)			N (b)	

Breeding Arctic tern, Sandwich tern		**Y (c)**			**Y (c)**			**Y (c)**			**Y (c)**	
Guillemot, Puffin		**Y (c)**			**Y (c)**			**Y (c)**			**Y (c)**	
Seabird Assemblage		**Y (d)**			**Y (d)**			**Y (d)**			**Y (d)**	

a) Roseate tern has not been recorded at SEP and DEP, meaning that there is no impact pathway for this species. It is therefore screened out.
b) Predicted proportions of birds present at DEP and SEP originating from this SPA are very low, so LSE can be ruled out and this qualifying feature screened out during migration periods.
c) SEP and DEP are beyond the maximum foraging range of breeding Sandwich tern, common tern and Arctic tern (**Table 7-4** of the **HRA Screening Report**). There is therefore no impact pathway for these qualifying features during the breeding season, and they are screened out. SEP and DEP are beyond the mean maximum foraging range of guillemot, but just within the maximum published foraging range. Due to the distance between SEP and DEP and this SPA, and parapatric competition between guillemot from the Flamborough and Filey Coast SPA (Wakefield et al., 2017) it is highly unlikely that substantial numbers of breeding birds from this SPA would regularly forage at SEP or DEP during the breeding season. On that basis, the impact pathway is not considered to have the potential to represent LSE, and the qualifying feature is screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Arctic tern: Approximately 3.3% of birds present during autumn and spring migrations.
   - Common tern: Approximately 0.1% of birds present during autumn and spring migrations.
   - Sandwich tern: Approximately 6.2% of birds present during autumn and spring migrations.
   - Guillemot: Approximately 6.2% of birds present during the non-breeding season.

   These proportions are all considered sufficiently large for these qualifying features to be screened in at these times of year
d) Regarding assemblage features, the proportions of birds present at SEP and DEP that are from this SPA are predicted by Furness. (2015) to be as follows:
   - Kittiwake: Approximately 0.7% of birds present during the autumn migration, and 1.0% during the spring migration.
   - Puffin: Approximately 17.9% of birds present during the non-breeding season.
   - The proportion of birds predicted to be present during the non-breeding season that are sufficiently high for the assemblage to be screened in.

Site	**51**											
Name of European Site:	**Firth of Tay & Eden Estuary SPA & Ramsar & SAC**											
Distance to SEP and DEP (km)	**430 and 420**											
Offshore Ornithology												
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Non-breeding migratory waterbird assemblage		N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)
Breeding marsh harrier		N (b)		N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)
Breeding little tern		N (c)		N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)

a) Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying waterfowl species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out.
b) Marsh harrier was not recorded during the baseline surveys of SEP and DEP. The presence of marsh harrier will be highly sporadic at most during passage periods, and would result in negligible numbers of birds from this passing through SEP and DEP. Marsh harrier is not anticipated at SEP and DEP during the breeding season due to their habitat preferences, and is therefore screened out.

c) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.

Site	52														
Name of European Site:	Firth of Tay & Eden Estuary SAC														
Distance to SEP and DEP (km)	426 and 420														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	53											
Name of European Site:	Flamborough and Filey Coast SPA											
Distance to SEP and DEP (km)	122 and 116											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding kittiwake		**Y (a)**			N (b)			N (b)			**Y (a)**	
Breeding gannet		**Y (a)**			**Y (a)**			**Y (a)**			**Y (a)**	
Breeding guillemot		**Y (a)**			**Y (a)**			**Y (a)**			**Y (a)**	
Breeding razorbill		**Y (a)**			**Y (a)**			**Y (a)**			**Y (a)**	
Seabird assemblage		N (c)			N (c)			N (c)			N (c)	

a) Mean maximum and/or maximum foraging ranges indicate that breeding gannet, guillemot, kittiwake and razorbill may forage at SEP and DEP. There is therefore an impact pathway, and these qualifying features are screened in.
b) Kittiwakes are not considered to be at risk of disturbance and displacement or barrier effects at offshore wind farms therefore LSE can be ruled out.
c) Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur based on the proportions presented in **Table-7-5** of the **HRA Screening Report** for this site. Therefore, they are screened out.

Site	54			
Name of European Site:	Forth Islands SPA			
Distance to SEP and DEP (km)	390 and 390			
Site Features	Likely effect(s) of SEP and DEP			
	Collision Risk	Displacement/Disturbance	Barrier Effect	In-combination

	C	O	D	C	O	D	C	O	D	C	O	D
Breeding roseate tern, Sandwich tern, Arctic tern, fulmar and shag		N (a)			N (a)			N (a)			N (a)	
Breeding gannet		N (b)			N (b)			N (b)			N (b)	
Breeding lesser black backed gull		N (c)			N (c)			N (c)			N (c)	
Breeding puffin		N (d)			N (d)			N (d)			N (d)	
Breeding seabird assemblage including as named features, kittiwake, guillemot, razorbill, , common tern, cormorant, herring gull,		N (e)			N (e)			N (e)			N (e)	
Non-breeding gannet, lesser black-backed gull, puffin		**Y (f)**			**Y (f)**			**Y (f)**			**Y (f)**	

a) SEP and DEP are beyond the maximum foraging range of of these breeding seabird species at this SPA (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for these qualifying features during the breeding season, and they are therefore screened out..
b) Breeding adult gannets from this SPA are beyond the mean maximum foraging range for this species from SEP and DEP but within the mean-maximum (plus one standard deviation) and maximum recorded foraging ranges. However, data presented by Wakefield et al. (2013) indicate that gannets breeding at the Forth Islands SPA are unlikely to occur within SEP and DEP during the breeding season, due to the distance from SEP and DEP and the fact that the foraging ranges of gannets from different breeding colonies tend not to overlap (the assumption therefore is that 100% of foraging breeding adult birds present at SEP and DEP during the breeding season are from the Flamborough and Filey Coast SPA (**Section** Error! Reference source not found.)). No impacts during the breeding season due to SEP and DEP are therefore apportioned to birds breeding at Forth Islands SPA.
c) SEP and DEP are beyond the mean maximum foraging range plus one standard deviation of breeding adult lesser black-backed gull from the Forth Islands SPA. Whilst they are within the maximum foraging range, this measurement is considered to be a poor indicator of typical foraging behaviour. It would be expected that few birds or foraging trips will occur at this distance from the colony, and even fewer with any regularity. As a result, no impacts on this qualifying feature due to SEP and DEP are predicted during the breeding season
d) Puffins from this SPA are beyond the mean maximum foraging range plus one standard deviation for this species, but within the maximum recorded foraging range for this species. However, this measurement is considered to be a poor indicator of typical foraging behaviour. It would be expected that few birds or foraging trips will occur at this distance from the colony. No impacts during the breeding season due to SEP and DEP are therefore apportioned to birds breeding at this colony.
e) SEP and DEP are beyond the maximum foraging range of these seabird species at this SPA (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for these qualifying features during the breeding season, and they are therefore screened out.
f) Gannet, lesser black-backed gull and puffin from this SPA are screened in outside the breeding season as proportions predicted to be present at SEP and DEP that are from this SPA are considered sufficiently large for LSE to be possible.

Site	**55**											
Name of European Site:	**Foula SPA**											
Distance to SEP and DEP (km)	**785 and 775**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding guillemot					**Y (a)**			**Y (a)**			**Y (a)**	
Breeding puffin					**Y (a)**			**Y (a)**			**Y (a)**	
Breeding red-throated diver					**Y (a)**			**Y (a)**			**Y (a)**	
Breeding Arctic tern		N (b)			N (b)			N (b)			N (b)	
Breeding Leach's storm-petrel		N (b)			N (b)			N (b)			N (b)	
Breeding great skua		N (b)			N (b)			N (b)			N (b)	
Breeding shag		N (b)			N (b)			N (b)			N (b)	

Breeding seabird assemblage (kittiwake, razorbill, Arctic skua, fulmar, puffin)		N (b)			N (b)			N (b)			N (b)	

a) The proportions of guillemot and puffin during the non-breeding season and red-throated diver in the migration seasons are considered sufficiently large for this species to be screened in.
b) Whilst an impact pathway may exist, the number of birds realistically anticipated to be present at SEP and DEP means that LSE can be ruled out. They are therefore screened out.
c) Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.

Site	**56**											
Name of European Site:	**Fowlsheugh SPA**											
Distance to SEP and DEP (km)	**460 and 450**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features fulmar, razorbill, herring gull		N (a)			N (a)			N (a)			N (b)	
Non-breeding guillemot, kittiwake		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**	

a) SEP and DEP are beyond the maximum foraging ranges of guillemot, razorbill and herring gull from this SPA and beyond the mean maximum but within the maximum foraging range of kittiwake and fulmar (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for guillemot, razorbill and herring gull from this SPA during the breeding season, which are therefore screened out. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore whilst an impact pathway exists, these qualifying features are screened out. Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP, particularly since this is an assemblage species. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Guillemot: Approximately 4.9% of birds present during the non-breeding season.
   - Kittiwake: Approximately 2.1% of birds present during the autumn migration season and 2.6% of birds present during the spring migration.
   - Razorbill: Approximately 2.0% of birds present during the autumn and spring migration seasons, and 1.2% during the winter.
   - Fulmar: Approximately 0.1% of birds present during the autumn and spring migration seasons.
   - Herring gull: Approximately 0.2% of birds present during the non-breeding season.

   These proportions are considered sufficiently small for Arctic tern to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of these qualifying features birds present at SEP and DEP originating from this SPA are very low, so LSE can be ruled out. Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore they are screened out.
b) Guillemot and kittiwake from this SPA are screened in outside the breeding season as proportions predicted to be present at SEP and DEP that are from this SPA are considered sufficiently large for LSE to be possible.

Site	**57**											
Name of European Site:	**Gibraltar Point SPA and Ramsar**											
Distance to SEP and DEP (km)	**46.4 and 61.2**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**

Non-breeding migratory waterbird features		**Y (a)**			**Y (a)**			**Y (a)**			**Y (a)**	
Breeding little tern		N (b)			N (b)			N (b)			N (b)	

a) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.
b) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.

Site	**58**											
Name of European Site:	**Great Yarmouth and North Denes SPA**											
Distance to SEP and DEP (km)	**44.9**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding little tern		N (a)			N (a)			N (a)			N (a)	

a) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.

Site	**59**											
Name of European Site:	**Greater Wash SPA**											
Distance to SEP and DEP (km)	**7 and 16.6**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabirds (common tern, Sandwich tern (breeding and non-breeding))		**Y (a)**			**Y (a)**			**Y (a)**			**Y (a)**	
Little tern		N (b)										
Nonbreeding red-throated diver				**Y (c)**	**Y (c)**			**Y (c)**		**Y (c)**	**Y (c)**	
Nonbreeding little gull		**Y (d)**									**Y (d)**	

a) Common tern and Sandwich tern have been recorded at SEP and DEP. During the breeding season these qualifying features may be at risk of collision and potentially displacement in the case of Sandwich tern, and are therefore both screened in. Sandwich tern is also screened in during the non-breeding season due to sufficiently large proportions of Sandwich tern present at these times of year (**Table 7-5** of the **HRA Screening Report**).
b) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out
c) SEP is within 10km of the SPA and therefore an impact pathway exists due to potential displacement of red-throated diver within the SPA. This qualifying feature is therefore screened in. Following advice from Natural England it is considered that Operations and Maintenance vessels may disturb red-throated divers whilst transiting through the SPA therefore an LSE cannot be screened out (**Table 7-5** of the **HRA Screening Report**).
d) There is possible operational collision risk to non-breeding little gull, which have been recorded at SEP and DEP and are expected to be associated with this SPA. This qualifying feature is therefore screened in. It is not present outside the non-breeding season, therefore it is screened out during this time of year (**Table 7-5** of the **HRA Screening Report**).

Site	60														
Name of European Site:	Grevelingen SAC														
Distance to SEP and DEP (km)	229 and 222														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey Seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour Seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	61														
Name of European Site:	Gule Rev SCI														
Distance to SEP and DEP (km)	621 and 598														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**).

Site	62
Name of European Site:	Gullmarsfjorden SAC
Distance to SEP and DEP (km)	844 and 821
Site Features	Likely effect(s) of SEP and DEP

	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) (**Table 6-4** of the **HRA Screening Report**).

Site	**63**																				
Name of European Site:	**Haisborough, Hammond and Winterton SAC**																				
Distance to SEP and DEP (km)	**20.7 and 17.3**																				
Site Features	**Likely effect(s) of SEP and DEP**																				
	Permanent / long term loss			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment**			**Re-mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Effects on bedload sediment transport**			**In-combination**		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Sandbanks which are slightly covered by sea water all the time	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)		N(a)		N(a)		N(a)	N(a)	N(a)
Reefs	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)		N(a)		N(a)		N(a)	N(a)	N(a)

a) Outside potential ZoI (**Table 4-2** of the **HRA Screening Report**).

Site	**64**														
Name of European Site:	**Hallands Väderö**														
Distance to SEP and DEP (km)	**812 and 792**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**65**														
Name of European Site:	**Hamburgisches Wattenmeer SCI**														
Distance to SEP and DEP (km)	**469 and 451**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	**66**																			
Name of European Site:	**Haringvliet SAC**																			
Distance to SEP and DEP (km)	**233 and 225**																			
Site Features	**Likely effect(s) of SEP and DEP**																			
	Permanent / long term habitat loss			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment and sediment re-deposition**			**Re-mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Impacts on commercially exploited species associated with their displacement from the area of activity / works**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
River lamprey	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)
Sea lamprey	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)
Atlantic salmon	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)

Allis shad	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)
Twaite shad	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)

a) The distance between the Projects and the site precludes direct impact upon the site and its supporting habitats. Fish associated with the SAC could in theory be present in the vicinity of SEP and DEP but given the distance of the Projects they would be present in low numbers. The absence of designated sites for these species on the UK Southern North Sea coast reflects the lower importance of the area to these species.

Site	**67**														
Name of European Site:	**Havet og kysten mellem Præstø Fjord og Grønsund SAC**														
Distance to SEP and DEP (km)	**730 and 712**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) (**Table 6-4** of the **HRA Screening Report**).

Site	**68**														
Name of European Site:	**Havet omkring Nordre Rønner SAC**														
Distance to SEP and DEP (km)	**788.1**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater Noise			**Vessel interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	69														
Name of European Site:	Helgoland mit Helgoländer Felssockel SAC														
Distance to SEP and DEP (km)	447 and 429														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	70											
Name of European Site:	Hermaness, Saxa Vord and Valla Field SPA											
Distance to SEP and DEP (km)	840 and 830											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding great skua		N (a)			N (a)			N (a)			N (a)	
Breeding fulmar		N (b)			N (b)			N (b)			N (b)	
Breeding seabird assemblage including as named features gannet, guillemot, red-throated diver, puffin, kittiwake, shag		N (c)			N (c)			N (c)			N (c)	
Non-breeding gannet and great skua		**Y (d)**			**Y (d)**			**Y (d)**			**Y (d)**	

a) Great skua was not recorded at SEP and DEP during the breeding season; there is therefore no impact pathway, and this qualifying feature can therefore be screened out.
b) SEP and DEP are within the maximum foraging range of fulmar. However, breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.

c) SEP and DEP are beyond the mean maximum foraging range of all breeding seabirds that are qualifying features of this SPA, and beyond the maximum foraging range of all species except fulmar (**Table 7-4** of the **HRA Screening Report**). With the exception of fulmar, all other qualifying features can be screened out during the breeding season as there is no impact pathway. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Gannet: Approximately 15.5% of birds present during autumn migration, and 20.1% of birds during spring migration.
   - Great skua: Approximately 4.9% of birds present during autumn migration, and 0% of birds present during winter.
   - Puffin: Approximately 0.1% of birds present during the non-breeding season.
   - Fulmar: Approximately 2.0% of birds present during the autumn and spring migration seasons.
   - Shag: Not present during non-breeding season.
   - Guillemot: Approximately 0.7% of birds present during the non-breeding season.
   - Kittiwake: Approximately 0.1% of birds present during the autumn and spring migration seasons.

   With respect to puffin, proportions of birds predicted to occur at SEP and DEP outside the breeding season are very small. Therefore, whilst an impact pathway exists, it is not considered that sufficient numbers of birds could be impacted to result in LSE. This qualifying feature is screened out. Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.
d) The proportions of gannet and great skua are considered sufficiently large for this species to be screened in at these times of year.

Site	**71**														
Name of European Site:	**Hesselø med omliggende stenrev SAC**														
Distance to SEP and DEP (km)	**750 and 730**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	**72**				
Name of European Site:	**Hirsholmene, havet vest herfor og Ellinge Å's udløb SAC**				
Distance to SEP and DEP (km)	**752 and 729**				
Site Features	**Likely effect(s) of SEP and DEP**				
	Underwater noise	**Vessel Interactions (increased collision risk)**	**Changes to prey availability**	**Changes to water quality**	**In-combination**

	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	**73**											
Name of European Site:	**Hornsea Mere SPA**											
Distance to SEP and DEP (km)	**112 and 110**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Nonbreeding gadwall, mute swan		N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)

a) Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying bird species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in impacts substantial enough to result in LSE. These qualifying features are therefore screened out.

Site	**74**											
Name of European Site:	**Hoy SPA**											
Distance to SEP and DEP (km)	**670 and 660**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features Arctic skua, great black-backed gull, guillemot, kittiwake, red-throated diver, fulmar, puffin, great skua		N (a)			N (a)			N (a)			N (a)	
Non-breeding red-throated diver		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabirds included as qualifying features of this SPA except kittiwake and great skua (**Table 7-4** of the **HRA Screening Report**). As there is no impact pathway for red-throated diver, puffin, great black-backed gull or guillemot during the breeding season, these qualifying features are screened out. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway

exists, this qualifying feature is screened out. Great skua was not recorded within the SEP and DEP survey area during the breeding season. Therefore, there is no impact pathway and it is screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:

- Red-throated diver: Approximately 0.4% of birds present during autumn and spring migrations, and 1.4% of birds present during winter.
- Great skua: Approximately 0% of birds present during autumn and spring migrations, and during winter.
- Puffin: Approximately 0.5% of birds present during non-breeding season.
- Kittiwake: Approximately 0.1% of birds present during autumn and spring migration.
- Great black-backed gull: Approximately 0.3% of birds present during non-breeding season.
- Guillemot: Approximately 0.9% of birds present during non-breeding season.

These proportions are considered sufficiently small for great skua to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of birds present at SEP and DEP originating from this SPA are very low, so LSE can be ruled out and these qualifying features are screened out. Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.

b) The proportion of red-throated diver predicted to be present in the SEP and DEP survey area during winter is sufficiently large for LSE to be considered a possibility; therefore, this qualifying feature is screened in for this time of year. Impacts during the migration seasons are screened out as the proportion of birds predicted to be present is considered sufficiently low to rule out LSE.

Site	**75**
Name of European Site:	**Humber Estuary SAC**
Distance to SEP and DEP (km)	**60 and 62.2**

Marine Mammals

Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise and barrier effects			**Vessel Interactions (increased collision risk), disturbance at seal haul outs, disturbance of foraging grey seals at sea**			**Changes to water quality**			**Changes to prey availability**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	N (d)	N (d)

Fish

Site Features	**Likely effect(s) of SEP and DEP**																			
	Permanent / long term habitat loss			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment and re-depostion**			**Re- mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Impacts on commercially exploited species associated with their displacement from the area of activity / works**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Sea Lamprey	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
River lamprey	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)

Benthic habitats

Site Features	**Permanent / long term loss**			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment**			**Re- mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Effects on bedload sediment transport**			**In-combination**		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Estuaries	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)		N (c)		N (c)		N (c)	N (c)	N (c)

Mudflats and sandflats not covered by seawater at low tide	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)		N (c)		N (c)		N (c)	N (c)	N (c)
Sandbanks which are slightly covered by sea water all the time	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)		N (c)		N (c)		N (c)	N (c)	N (c)
Coastal lagoons	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)	N (c)		N (c)		N (c)		N (c)	N (c)	N (c)

a) There is potential for effects from underwater noise and barrier effects; vessel interactions; disturbance at seal haul-out sites, disturbance of foraging seals at sea; changes to water quality; and changes to prey availability. The in-combination effects assessment assesses underwater noise impacts only (see **Section 8.4.3.4** of the **RIAA**)
b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 5-2** of the **HRA Screening Report**).
c) Outside potential ZoI (**Table 4-2** of the **HRA Screening Report**).

Site	**76**											
Name of European Site:	**Humber Estuary SPA and Ramsar**											
Distance to SEP and DEP (km)	**55.3 and 61.2**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding little tern		N (a)			N (a)			N (a)			N (a)	
Breeding bittern, marsh harrier and avocet		N (b)			N (b)			N (b)			N (b)	
Non-breeding migratory waterbird features		**Y (c)**			**Y (c)**			**Y (c)**			**Y (c)**	

a) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.
b) Other breeding birds named as qualifying features of this SPA are unlikely to utilise SEP or DEP due to their habitat preferences. There is no impact pathway for these species and they are therefore screened out.
c) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.
d) Any in-combination effects for offshore wind farms during operation and maintenance or decommissioning have been screened out of further assessment. See **Sections 10.3.4.1.3, 10.3.4.1.4 and 10.3.4.1.5 of Appendix 10.3 Marine Mammals CIA Screening** (document reference 6.3.10.3) for further information.

Site	**77**																	
Name of European Site:	**Hund und Paapsand SCI**																	
Distance to SEP and DEP (km)	**376 and 359**																	
Site Features	**Likely effect(s) of SEP and DEP**																	
	Underwater noise and barrier effects			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**

Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**78**																
Name of European Site:	**Imperial Dock Lock, Leith SPA**																
Distance to SEP and DEP (km)	**410**																
Site Features	**Likely effect(s) of SEP and DEP**																
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**							
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**					
Breeding common tern		N (a)			N (a)			N (a)			N (b)						
Non-breeding common tern		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**						

a) SEP and DEP are beyond the maximum foraging range of breeding common terns from this SPA (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway and therefore this qualifying feature can be screened out.
b) Outside the breeding season, approximately 1.2% of birds present at SEP and DEP are estimated by Furness. (2015) to be from this SPA. An impact pathway therefore exists, and this proportion is considered sufficiently large for LSE to be possible, so this qualifying feature is screened in.

Site	**79**																		
Name of European Site:	**Inner Dowsing, Race Bank and North Ridge SAC**																		
Distance to SEP and DEP (km)	**2.2 and 10.3**																		
Site Features	**Likely effect(s) of SEP and DEP**																		
	Permanent / long term habitat loss			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment concentrations and deposition**			**Re- mobilisation of contaminated sediments**			**Changes to physical processes resulting in changes to sediment supply**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Sandbanks which are slightly covered by sea water all the time	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	**SEP Y (b)** DEP N (c)	**SEP Y (b)** DEP N (c)	**SEP Y (b)** DEP N (c)	N (a)		N (a)	N (a)	**SEP Y (b)** DEP N (c)	N (a)	**SEP Y (b)** DEP N (c)	**SEP Y (b)** DEP N (c)	**SEP Y (b)** DEP N (c)
Reefs	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)

a) SEP and DEP are outside the ZoI and therefore are screened out.
b) Natural England Conservation Advice for Inner Dowsing, Race Bank and North Ridge SAC suggests that the Annex I habitat feature 'Sandbanks which are slightly covered by sea water all the time' may be within the SEP ZOI from impacts on sediment transport, although the feature extent is further from SEP than the SAC boundary. Natural England's AoO states that water flow (tidal current) changes, including sediment transport is a high risk pressure from

offshore wind operation (presence of turbines). 'Sandbanks which are slightly covered by sea water all the time' are potentially sensitive to this pressure because one of its component habitats, subtidal mud, is sensitive to the pressure. However subtidal sand is assessed as not sensitive (Natural England, 2017a). Evidence suggests that a LSE on the SAC sandbanks feature is unlikely, but it cannot be entirely ruled out at this stage from SEP.

c) DEP is outside the ZoI and therefore a LSE on the site from DEP is screened out (see **Figure 7.1** of the **RIAA**).

Site	**80**														
Name of European Site:	**Isle of May SAC**														
Distance to SEP and DEP (km)	**401 and 395**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**81**														
Name of European Site:	**Klaverbank SAC**														
Distance to SEP and DEP (km)	**134 and 114**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	82														
Name of European Site:	Kosterfjorden-Väderöfjorden SAC														
Distance to SEP and DEP (km)	855 and 832														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	83														
Name of European Site:	Kungsbackafjorden SAC														
Distance to SEP and DEP (km)	824 and 801														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	84														
Name of European Site:	Küsten- und Dünenlandschaften Amrums SAC														
Distance to SEP and DEP (km)	491 and 474														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D

Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**85**											
Name of European Site:	**Littoral Seino-Marin SPA**											
Distance to SEP and DEP (km)	**334 and 342**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabirds including fulmar, shag, gannet, herring gull, great black-backed gull, kittiwake		N (a)			N (a)			N (a)			N (a)	
Nonbreeding winter and passage seabird assemblage including as named features red-throated diver, black-throated diver, great crested grebe, fulmar, gannet, cormorant, shag, pomarine skua, great skua, Mediterranean gull, little gull, lesser black-backed gull, herring gull, great black-backed gull, kittiwake, Sandwich tern, common tern, guillemot, razorbill		N (a)			N (a)			N (a)			N (a)	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabird species at this SPA except for gannet. Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from the Flamborough and Filey Coast SPA (Wakefield et al., 2013), it is considered highly unlikely that breeding birds from this SPA would regularly forage at DEP or SEP during the breeding season.

Proportions of SPA seabird populations migrating through SEP and DEP outside the breeding season are expected to be small compared with the wider BDMPS (Furness, 2015).

On this basis, all qualifying features are screened out.

Site	**86**											
Name of European Site:	**Loch of Strathbeg SPA & Ramsar**											
Distance to SEP and DEP (km)	**520 and 510**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**

Wintering and passage waterbird assemblage including as named features greylag goose, pink-footed goose, teal, Svalbard barnacle goose, whooper swan		N (a)			N (a)			N (a)			N (a)	
Breeding Sandwich tern		N (b)			N (b)			N (b)			N (b)	

a) Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying waterfowl species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out.
b) SEP and DEP are beyond the maximum foraging range of breeding Sandwich tern from this SPA. There is therefore no impact pathway for this species during the breeding season and it is screened out. The proportion of the population migrating through SEP and DEP is 0% compared with the wider BDMPS (Furness, 2015), meaning that this species is screened out.

Site	**87**														
Name of European Site:	**Løgstør Bredning, Vejlerne og Bulbjerg SAC**														
Distance to SEP and DEP (km)	**729.9**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) **(**Table 6-4 of the **HRA Screening Report).**

Site	**88**														
Name of European Site:	**Lovns Bredning, Hjarbæk Fjord og Skals, Simested og Nørre Ådal, Skravad Bæk SAC**														
Distance to SEP and DEP (km)	**638 and 615**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) (Table 6-4 of the HRA Screening Report).

Site	89														
Name of European Site:	Malmöfjord SAC														
Distance to SEP and DEP (km)	850 and 827														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	90														
Name of European Site:	Marais du Cotentin et du Bessin - Baie des Veys SAC														
Distance to SEP and DEP (km)	432 and 445														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	91
Name of European Site:	Marwick Head SPA
Distance to SEP and DEP (km)	710 and 700
Site Features	Likely effect(s) of SEP and DEP

	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding seabird assemblage including as named features guillemot and kittiwake		N (a)			N (a)			N (a)			N (b)	
Non-breeding guillemot		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**	

a) SEP and DEP are beyond the maximum foraging range of guillemot (**Table 6-4** of the **HRA Screening Report**). There is therefore no impact pathway for this species during the breeding season and it is screened out. SEP and DEP are within the maximum foraging range of kittiwake, so a potential impact pathway exists. However, due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Guillemot: 1.6%.of birds present during the non-breeding season.
   - Kittiwake: Approximately 0.1% of birds present during autumn and spring migration seasons.

   These proportions are considered sufficiently small for kittiwake to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of birds present at SEP and DEP originating from this SPA are very low, so LSE can be ruled out and these qualifying features are screened out.

b) The proportion of guillemot predicted to be present in the SEP and DEP survey area during the non-breeding season is sufficiently large for LSE to be considered a possibility; therefore this qualifying feature is screened in.

Site	**92**														
Name of European Site:	**Måseskär SAC**														
Distance to SEP and DEP (km)	**837 and 814**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) (**Table 6-4** of the **HRA Screening Report**).

Site	**93**			
Name of European Site:	**Minsmere - Walberswick SPA and Ramsar**			
Distance to SEP and DEP (km)	**86.9 and 91.2**			
Site Features	**Likely effect(s) of SEP and DEP**			
	Collision Risk	**Displacement/Disturbance**	**Barrier Effect**	**In-combination**

	C	O	D	C	O	D	C	O	D	C	O	D
Non-breeding migratory waterbird features		**Y (a)**									**Y (a)**	
Breeding little tern		N (b)			N (b)			N (b)			N (b)	
Nonbreeding hen harrier		N (c)			N (c)			N (c)			N (c)	
Breeding bittern, marsh harrier, avocet, nightjar, and ducks		N (c)			N (c)			N (c)			N (c)	

a) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.
b) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.
c) The presence of other qualifying species from this SPA at the Projects will be sporadic at most during passage periods, and would result in negligible numbers passing through SEP and DEP. They are not anticipated at SEP and DEP during the breeding season due to their habitat preferences, and are therefore screened out.

Site	**94**														
Name of European Site:	**Moray Firth SAC**														
Distance to SEP and DEP (km)	**569 and 561**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise and barrier effects			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Bottlenose dolphin	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	N(b)	N(b)

a) During the HRA screening undertaken in April 2021, it was considered that no bottlenose dolphin designated sites had the potential for connectivity with the Projects, and therefore were not screened in for further assessment. However, since the HRA screening, there has been a recent increase in presence of the bottlenose dolphin along the north-east coast of England. Therefore, as a precautionary approach, it has been assumed that bottlenose dolphin off the east coast of England could be from the Moray Firth SAC and as such this designated site has been assessed further. The in-combination effects assessment assesses underwater noise impacts only (**Section 8.4.2.4** of the **RIAA**).
b) Any in-combination effects for offshore wind farms during operation and maintenance or decommissioning have been screened out of further assessment. See **Sections 10.3.4.1.3, 10.3.4.1.4 and 10.3.4.1.5 of Appendix 10.3 Marine Mammals CIA Screening** (document reference 6.3.10.3) for further information.

Site	**95**											
Name of European Site:	**Mousa SPA**											
Distance to SEP and DEP (km)	**765 and 755**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding Arctic tern		N (a)			N (a)			N (a)			N (a)	
Breeding European storm-petrel		N (b)			N (b)			N (b)			N (b)	

a) SEP and DEP are beyond the maximum foraging range of breeding Arctic tern from this SPA. There is therefore no impact pathway and this qualifying feature is screened out. Outside the breeding season, the proportion of Arctic tern present at SEP and DEP that are estimated by Furness (2015) to be from this SPA is approximately 0%. This qualifying feature is therefore screened out.
b) European storm petrel was not recorded at SEP and DEP during the baseline surveys. There is no impact pathway for this qualifying feature, and it is therefore screened out.

Site	96														
Name of European Site:	Mousa SAC														
Distance to SEP and DEP (km)	764 and 753														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

c) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	97														
Name of European Site:	Nationalpark Niedersächsisched Wattenmeer SAC														
Distance to SEP and DEP (km)	357 and 339														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	98
Name of European Site:	Nene Washes SPA and Ramsar Site
Distance to SEP and DEP (km)	112 and 92.2

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Non-breeding migratory waterbird features including Bewick's swan		Y (a)									Y (a)	

a) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.

Site	99														
Name of European Site:	Nibe Bredning, Halkær Ådal og Sønderup Ådal SAC														
Distance to SEP and DEP (km)	669 and 646														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	100														
Name of European Site:	Nidingen SAC														
Distance to SEP and DEP (km)	818 and 796														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**).

Site	101
Name of European Site:	Noordzeekustzone SAC
Distance to SEP and DEP (km)	221 and 205

Marine Mammals

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk) and disturbance at seal haul outs			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

Fish

Site Features	Likely effect(s) of SEP and DEP																				
	Permanent / long term habitat loss			Temporary physical disturbance / habitat loss			Increased suspended sediment and re-deposition			Re-mobilisation of contaminated sediments			Underwater noise and vibration			Impacts on commercially exploited species associated with their displacement from the area of activity / works			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Sea Lamprey	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
Allis Shad	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
Twaite Shad	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)

Benthic Habitats

Site Features	Permanent / long term loss			Temporary physical disturbance / habitat loss			Increased suspended sediment and re-deposition			Re-mobilisation of contaminated sediments			Underwater noise and vibration			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Sandbanks which are slightly covered by sea water all the time	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)
Mudflats and sandflats not covered by seawater at low tide	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)	N(c)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**).
b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE.
c) Outside potential ZoI (**Section 4,2** of the **HRA Screening Report**).

Site	102														
Name of European Site:	Nordre älvs estuarium SAC														
Distance to SEP and DEP (km)	835 and 811														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	103														
Name of European Site:	Nordvästra Skånes havsområde SAC														
Distance to SEP and DEP (km)	781 and 761														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	104			
Name of European Site:	Norfolk Valley Fens SAC			
Distance to SEP and DEP (km)	2.2 from onshore cable corridor area			
Site Features	Likely effect(s) of SEP and DEP			
	Direct effects upon habitats within the SAC boundary	Direct effects within ex-situ habitats of the SAC	Indirect effects (geology / contamination and groundwater / hydrology effects)	In-combination

	C	O	D	C	O	D	C	O	D	C	O	D
Alkaline fens	N (a)			N (a)			N (a)			N (a)		

a) No overlap therefore no direct effect, and beyond the range of potential significant indirect effect (**Table 3-3** of the **HRA Screening Report**).

Site	**105**											
Name of European Site:	**North Caithness Cliffs SPA**											
Distance to SEP and DEP (km)	**650 and 640**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features, guillemot, razorbill, puffin		N (a)			N (a)			N (a)			N (a)	
Breeding kittiwake		N (b)			N (b)			N (b)			N (b)	
Breeding fulmar		N (c)			N (c)			N (c)			N (c)	
Non-breeding guillemot		**Y (d)**			**Y (d)**			**Y (d)**			**Y (d)**	

a) SEP and DEP are beyond the maximum foraging ranges of the breeding seabirds named as qualifying features except fulmar and kittiwake (**Table 7-4** of the **HRA Screening Report**). Other than fulmar and kittiwake, no impact pathway exists for these qualifying features during the breeding season. They are therefore screened out. Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows (see **Table 7-5** of the **HRA Screening Report**):
   - Guillemot: Approximately 6.7% of birds present during non-breeding season.
   - Fulmar: Approximately 4.2% of birds present during autumn and spring migration seasons.
   - Kittiwake: Approximately 2.3% of birds present during autumn migration and 2.8% during spring migration.
   - Razorbill: Approximately 0.9% of birds present during autumn and spring migrations, and 0.6% of birds present during winter.
   - Puffin: Approximately 0.1% of birds present during non-breeding season.

   Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.

b) Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out.

c) Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.

d) The proportion of guillemot predicted to be present in the SEP and DEP survey area outside the breeding season are sufficiently large for LSE to be considered a possibility; therefore this qualifying feature is screened in.

Site	**106**
Name of European Site:	**North Norfolk Coast SPA and Ramsar**
Distance to SEP and DEP (km)	**17.7 and 33.3 from the wind farm sites respectively and 1.2km from the onshore cable corridor**

Site Features	Likely effect(s) of SEP and DEP																		
	Collision Risk			Displacement/Disturbance			Barrier Effect			Direct effects on wintering birds present in ex-situ habitats			Indirect effects on wintering birds present within the site boundary			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Non-breeding migratory waterbird features including pink-footed goose and dark-bellied brent goose		**Y (a)**								**Y (e)**	N (h)	N (h)	**Y (f)**	N (h)	N (h)	**Y (g)**		
Breeding and on migration Sandwich tern		**Y (b)**			**Y (b)**			**Y (b)**								**Y (g)**		
Breeding and on migration common tern		**Y (c)**														**Y (g)**		
Breeding little tern		N (d)																

a) Potential collision risk of migrations of waterbirds to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.

b) SEP and DEP are within the mean maximum foraging range of breeding Sandwich tern. These species are at risk of collision. Sandwich tern may also be at risk of operational displacement. An impact pathway exists and these qualifying features are therefore screened in during the breeding season. During spring and autumn migration periods approximately 31% of Sandwich terns, present within the SEP and DEP survey area may originate from this SPA (Furness, 2015). Sandwich tern are screened in for migration season impacts.

c) SEP and DEP are within the maximum foraging range of common tern from this SPA and Ramsar site (**Table 7-4** of the **HRA Screening Report**). This species are at risk of collision. An impact pathway exists and this qualifying feature is therefore screened in during the breeding season. Estimates of the proportion of common terns present at SEP and DEP during the autumn and spring migration seasons which originate from the North Norfolk Coast SPA and Ramsar site are based on the SPA population as a proportion of the UK North Sea and Channel BDMPS (Furness 2015). During both autumn and spring migration seasons, breeding adult common terns from the North Norfolk Coast SPA and Ramsar site make up 0.2% of the total BDMPS population. The same percentage of impacts are therefore attributable to birds from this SPA during these times of year (see **Section 9.4.3.2** of the **RIAA**).

d) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.

e) There is potential for direct effects on wintering birds present in ex-situ habitats of the SPA and Ramsar during the installation of the cables and/or construction of access tracks.

f) The qualifying features of the North Norfolk Coast Ramsar are sensitive to noise, visual or air quality disturbance, so indirect effects upon these qualifying features of the SPA and Ramsar might occur and these effects have been screened in for further assessment. In addition, watercourses and arable land which might be supporting wintering birds identified as qualifying features of the of the SPA and Ramsar could be subject to trenching works during the construction phase, and as such there may be effects upon this ex-situ habitat.

g) There is potential for in-combination operational displacement and collision risk for Sandwich tern and in-combination operational collision risk for common tern and the non-breeding migratory waterbird feature assemblage (**Section 9.4.3** of the **RIAA**). Additionally, there is potential for in-combination direct effects on the wintering bird features present in ex-situ habitats and for indirect effects on wintering bird features in ex-situ habitats of the SPA and Ramsar (**Sections 6.4.2.2** and **6.4.3.2** of the **RIAA**)

h) Receptors lie outside the zone of influence of potential effects during operation and decommissioning and are therefore screend out.

Site	**107**
Name of European Site:	**North Norfolk Sandbanks and Saturn Reef SAC**
Distance to SEP and DEP (km)	**47.4**

Site Features	Likely effect(s) of SEP and DEP																	
	Permanent loss			Temporary physical disturbance			Smothering due to increased suspended sediment			Re- mobilisation of contaminated sediments			Underwater noise and vibration			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D

Sandbanks which are slightly covered by sea water all the time	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Reefs	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) Outside potential ZoI (**Table 4-2** of the **HRA Screening Report**).

Site	**108**											
Name of European Site:	**Northumberland Marine SPA**											
Distance to SEP and DEP (km)	**266.1 and 260.4**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including Arctic tern, common tern, roseate tern, Sandwich tern, little tern, puffin, guillemot, cormorant, shag, black-headed gull kittiwake fulmar, great black-backed gull, lesser black-backed gull, herring gull and razorbill		N (a)			N (a)			N (a)			N (a)	

a) Little tern and roseate tern have not been recorded at SEP and DEP. There is consequently no impact pathway for these qualifying features, which are therefore screened out. With the exception of puffin and guillemot, SEP and DEP are beyond the maximum foraging range of the species named as qualifying features at this SPA. No impact pathway therefore exists, and these qualifying features are screened out during the breeding season. Due to the distance between SEP and DEP and this SPA, and parapatric competition between guillemot from the Flamborough and Filey Coast SPA (Wakefield et al., 2017) it is considered unlikely that substantial numbers of breeding guillemots from this SPA would regularly forage at SEP or DEP during the breeding season. On that basis, the impact pathway is not considered to have the potential to represent LSE, and the qualifying feature is screened out. This SPA is not included in Furness (2015). However, the following proportions of birds present at SEP and DEP outside the breeding season are estimated to be from this SPA, and as a result are screened in as an impact pathway is present, and proportions of birds are sufficiently large to potentially represent LSE:

- Arctic tern: Approximately 6% of birds present during autumn and spring migrations.
- Common tern: Approximately 2% of birds present during autumn and spring migrations.
- Guillemot: Approximately 4% of birds present during the non-breeding season.
- Puffin: Approximately 47% of birds present during the non-breeding season.
- Sandwich tern: Approximately 11% of birds present during autumn and spring migrations.

Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, this SPA protects the foraging habitat of several breeding seabird SPAs (Farne Islands SPA, Coquet Island SPA, and Northumbria Coast SPA). During the non-breeding season, potential impacts on these birds are considered within their respective breeding colony SPAs. Therefore, this SPA is screened out (**Table 7-4** of the **HRA Screening Report**).

Site	**109**											
Name of European Site:	**Northumbria Coast SPA and Ramsar**											
Distance to SEP and DEP (km)	**268 and 260**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**

Nonbreeding turnstone, purple sandpiper		N (a)			N (a)			N (a)			N (c)	
Breeding little tern		N (b)			N (b)			N (b)			N (b)	
Arctic tern		N (b)			N (b)			N (b)			N (b)	

a) Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying bird species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out.
b) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.
c) As this species was recorded in such small numbers at SEP and DEP outside the breeding season, LSE is not considered possible, and this species can therefore be screened out.

Site	**110**											
Name of European Site:	**Noss SPA**											
Distance to SEP and DEP (km)	**780 and 765**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding gannet		**Y (a)**			**Y (a)**			**Y(a)**			**Y (b)**	
Breeding great skua		N (b)			N (b)			N (b)			N (b)	
Breeding guillemot					**Y (a)**			**Y (a)**			**Y (a)**	
Breeding seabird assemblage (fulmar, kittiwake, puffin)		N (c)			N (c)			N (c)			N (c)	

a) The proportions of gannet and guillemot predicted to be present in the SEP and DEP survey area at particular times of year is sufficiently large for LSE to be considered a possibility; therefore, these qualifying features are screened in.
b) Great skua was not recorded within the SEP and DEP survey area during the breeding season. Therefore, there is no impact pathway and it is screened out.
c) Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.

Site	**111**														
Name of European Site:	**NTP S-H Wattenmeer und angrenzende Kustengebiete SAC**														
Distance to SEP and DEP (km)	**469 and 451**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	**112**															
Name of European Site:	**Oosterschelde SAC**															
Distance to SEP and DEP (km)	**229 and 224**															
Site Features	**Likely effect(s) of SEP and DEP**															
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 4-2** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	**113**															
Name of European Site:	**Orfordness - Shingle Street SAC**															
Distance to SEP and DEP (km)	**108 and 128**															
Site Features	**Likely effect(s) of SEP and DEP**															
	Permanent loss			**Temporary physical disturbance**			**Smothering due to increased suspended sediment**			**Re- mobilisation of contaminated sediments**			**Underwater noise and vibration**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Coastal lagoons	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) Outside potential ZoI (**Table 4-2** of the **HRA Screening Report**).

Site	114
Name of European Site:	Östliche Deutsche Bucht SAC
Distance to SEP and DEP (km)	452.8

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	115
Name of European Site:	Ouessant-Molene SAC
Distance to SEP and DEP (km)	661 and 677

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	116
Name of European Site:	Ouse Washes SPA
Distance to SEP and DEP (km)	112 and 92.2

Site Features	Likely effect(s) of SEP and DEP			
	Collision Risk	Displacement/Disturbance	Barrier Effect	In-combination

	C	O	D	C	O	D	C	O	D	C	O	D
Non-breeding migratory waterbird features including Bewick's swan and Whooper swan		**Y (a)**									**Y (a)**	

a) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in (**Table 7-4** of the **HRA Screening Report**).

Site	**117**											
Name of European Site:	**Outer Firth of Forth and St Andrews Bay complex SPA**											
Distance to SEP and DEP (km)	**365 and 358**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding common tern		N (a)			N (a)			N (a)			N (a)	
Breeding Arctic tern		N (a)			N (a)			N (a)			N (a)	
Breeding seabird assemblage (puffin, kittiwake, Manx shearwater, guillemot, herring gull)		N (a)			N (a)			N (a)			N (a)	
Non-breeding red-throated diver		N (a)			N (a)			N (a)			N (a)	
Non-breeding Slavonian grebe		N (a)			N (a)			N (a)			N (a)	
Non-breeding little gull		N (a)			N (a)			N (a)			N (a)	
Non-breeding seabird assemblage (black-headed gull, common gull, herring gull, guillemot, shag, kittiwake and razorbill)		N (a)			N (a)			N (a)			N (a)	
Non-breeding eider and waterfowl assemblage		N (a)			N (a)			N (a)			N (a)	

a) This is a marine SPA designated for offshore aggregations of seabirds during the breeding and non-breeding seasons. The SPA boundary encompasses core areas for the qualifying species and given the extensive distance between the SPA and SEP and DEP, it is considered that there is no connectivity with SEP or DEP. All qualifying features are therefore screened out (**Table 7-4** of the **HRA Screening Report**).

Site	**118**											
Name of European Site:	**Outer Thames Estuary SPA**											
Distance to SEP and DEP (km)	**58.3 and 58**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Non-breeding red-throated divers					**Y (a)**			**Y (a)**			**Y (a)**	
Breeding little tern and common tern		N (b)			N (b)			N (b)				

a) Despite being screened out during the initial HRA screening in April 2021, the red-throated diver qualifying feature of the Outer Thames Estuary SPA has been screened into the **RIAA** due to the potential risk of disturbance and displacement during the operational phase of SEP and DEP as a result of vessels associated with the OWFs transiting part of the northern section of the SPA from Great Yarmouth, for a distance of around 10km.
b) SEP and DEP are beyond the maximum foraging range of common tern from this SPA and therefore no impact pathway exists for this population. It is therefore screened out during the breeding season. The presence of common tern at SEP and DEP from this SPA during passage periods in large numbers is considered unlikely as the SPA is located south of SEP and DEP (Furness, 2015). Whilst not listed in Furness (2015), the common tern population of this SPA would represent approximately 0.4% of birds recorded at SEP and DEP during migration seasons. This qualifying feature is therefore screened out as potential impacts on such a small number of birds would not be sufficient to represent LSE. Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out. (**Table 7-5** of the **HRA Screening Report**).

Site	**119**											
Name of European Site:	**Overstrand Cliffs SAC**											
Distance to SEP and DEP (km)	**9.2 from onshore cable corridor area**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Direct effects upon habitats within the SAC boundary			**Direct effects within ex-situ habitats of the SAC**			**Indirect effects (geology / contamination and groundwater / hydrology effects)**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Vegetated sea cliffs of the Atlantic and Baltic Coasts	N (a)			N (a)			N (a)			N (a)		

a) No overlap therefore no direct effect and beyond the range of potential significant indirect effect (**Table 3-2** of the **HRA Screening Report**).

Site	**120**											
Name of European Site:	**Papa Stour SPA**											
Distance to SEP and DEP (km)	**810 and 795**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding Arctic tern		**Y (a)**			**Y (a)**			**Y (a)**			**Y (a)**	
Breeding ringed plover		N (b)			N (b)			N (b)			N (b)	

a) SEP and DEP are far beyond maximum foraging range of breeding Arctic tern from this SPA (**Table 7-4** of the **HRA Screening Report**), meaning that there is no impact pathway and this qualifying feature can be screened out during the breeding season. However, during the migration season, the proportion of the population migrating through SEP and DEP is estimated to be 2.0% of the total number of birds (Furness, 2015). This qualifying feature is therefore screened in, as there is clearly an impact pathway present and the proportion of birds present at SEP and DEP may be sufficient for LSE to occur.
b) Migrations of non-breeding ringed plover to and from the site are likely to result in negligible numbers passing through SEP and DEP due to the distance between the SPA and SEP and DEP. Whilst there is a small risk of collision and therefore an impact pathway exists, the number of birds realistically anticipated to be present means that LSE can be ruled out. This qualifying feature is therefore screened out.

Site	**121**
Name of European Site:	**Papa Westray (North Hill and Holm) SPA**
Distance to SEP and DEP (km)	**720 and 710**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding Arctic tern		N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (b)	N (b)	N (b)
Breeding Arctic skua		N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (b)	N (b)	N (b)

a) Papa Westray SPA is beyond the maximum foraging range of Arctic tern or Arctic skua so has no breeding season connectivity. Proportions of these populations migrating through the SEP and DEP sites are likely to be extremely small relative to BDMPS (**Table 7-4** of the **HRA Screening Report**).
b) The predicted effect attributable to SEP and DEP is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Papa Westray SPA (**Table 7-4** of the **HRA Screening Report**).

Site	**122**
Name of European Site:	**Pater Noster-skärgården SAC**
Distance to SEP and DEP (km)	**832 and 808**

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**123**
Name of European Site:	**Pentland Firth Islands SPA**
Distance to SEP and DEP (km)	**630 and 620**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding Arctic tern		N (a)		N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (b)	N (b)	N (b)

a) Pentland Firth Islands SPA is beyond maximum foraging range of Arctic tern so has no breeding season connectivity. The proportion of the population migrating through the SEP and DEP sites is likely to be extremely small relative to BDMPS (**Table 7-4** of the **HRA Screening Report**).
b) The predicted effect attributable to SEP and DEP is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Pentland Firth Islands SPA (**Table 7-4** of the **HRA Screening Report**).

Site	124														
Name of European Site:	Presqu'ile De Crozon SAC														
Distance to SEP and DEP (km)	667 and 682														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	125														
Name of European Site:	Récifs et marais arrière-littoraux du Cap Lévi à la Pointe de Saire SAC														
Distance to SEP and DEP (km)	409 and 422														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	126
Name of European Site:	Recifs Gris-Nez Blanc-Nez SAC
Distance to SEP and DEP (km)	233 and 240
Marine Mammals	
Site Features	Likely effect(s) of SEP and DEP

	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

Benthic Habitats

Site Features	Permanent loss			Temporary physical disturbance			Smothering due to increased suspended sediment			Re- mobilisation of contaminate d sediments			Underwater noise and vibration			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Sandbanks which are slightly covered by sea water all the time	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)	N (b)	N (b)	N (b)
Reefs	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)	N (b)	N (b)	N (b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.
b) Outside potential ZoI (**Section 4.2** of the **HRA Screening Report**).

Site	127
Name of European Site:	Ridens et dunes hydrauliques du detroit du Pas-de-Calais SAC
Distance to SEP and DEP (km)	237 and 244

Marine Mammals

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

Benthic Habitats

Site Features	Permanent loss			Temporary physical disturbance			Smothering due to increased suspended sediment			Re- mobilisation of contaminate d sediments			Underwater noise and vibration			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D

Sandbanks which are slightly covered by sea water all the time	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)	N (b)	N (b)	N (b)
Reefs	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)	N (b)	N (b)	N (b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.
b) Outside potential ZoI (**Section 4.2** of the **HRA Screening Report**).

Site	**128**																	
Name of European Site:	**River Derwent SAC**																	
Distance to SEP and DEP (km)	**146 and 147**																	
Site Features	**Likely effect(s) of SEP and DEP**																	
	Permanent loss			**Temporary physical disturbance**			**Smothering due to increased suspended sediment**			**Re- mobilisation of contaminated sediments**			**Underwater noise and vibration**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
River lamprey	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Sea lamprey	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)	N (b)		N (b)	N (b)	N (b)	N (b)

a) The River Derwent SAC has no marine components. The distance between the Projects and the site precludes direct impact upon the site and its supporting habitats. River lamprey are restricted to estuaries of major rivers. Given the distance from the Projects to any such estuaries, e.g. the Humber, there can be no direct or indirect interaction with the Projects.
b) Sea lamprey could in theory be present in the vicinity of SEP and DEP but given their life history interaction would be limited.

Site	**129**											
Name of European Site:	**River Wensum SAC**											
Distance to SEP and DEP (km)	**Located within 200m of the onshore cable corridor area**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Direct effects upon habitats within the SAC boundary			**Direct effects within ex-situ habitats of the SAC**			**Indirect effects (geology / contamination and groundwater / hydrology effects)**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Watercourses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	N (a)			**Y (b)**	N (e)	N (e)	**Y (b)**	N (e)	N (e)	**Y (d)**		

White clawed crayfish	N (a)						N (c)			N (c)		
Desmoulin's whorl snail	N (a)			**Y (b)**	N (e)	N (e)	**Y (b)**	N (e)	N (e)	**Y (d)**		
Brook lamprey	N (a)						N (c)			N (c)		
Bullhead	N (a)						N (c)			N (c)		

a) The cable corridor will cross the River Wensum near the village of Attlebridge. SEP and DEP propose to use a trenchless technique (e.g. Horizontal Directional Drilling (HDD)) to cross the river. This technique will ensure that there are no direct effects upon any of the qualifying features of the SAC within the site boundary, and therefore potential direct effects upon the SAC boundary are screened out from any further assessment.
b) *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation and Desmoulin's whorl snail may be present in habitats functionally connected to the River Wensum, including coastal floodplain and grazing marsh habitat. HDD activities required for the crossing will potentially involve activities located within coastal floodplain grazing marsh adjacent to the River Wensum. Therefore, there is the potential for direct effects upon these qualifying features to occur. These potential effects have been screened in for further assessment.
c) Potential effects upon white-clawed crayfish, brook lamprey and bullhead have been screened out due to the Applicant's commitment to use trenchless crossing techniques at the River Wensum, thereby avoiding direct effects upon the SAC boundary and the qualifying features it supports.
d) Hornsea Project Three, Norfolk Vanguard, Norfolk Boreas and the Norwich Western Link Road projects also propose to cross the River Wensum and therefore could potentially result in in-combination effects on the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation and Desmoulin's whorl snail features of the SAC and therefore in-combination effects are screened in for these features.
e) Receptors lie outside the zone of influence of potential effects during operation and decommissioning and are therefore screend out.

Site	**130**														
Name of European Site:	**Roches de Penmarch**														
Distance to SEP and DEP (km)	**694 and 709**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**131**
Name of European Site:	**Ronas Hill - North Roe and Tingon SPA**
Distance to SEP and DEP (km)	**825 and 810**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding great skua and red-throated diver		N (a)			N (a)			N (a)			N (d)	
Non-breeding great skua and red-throated diver		**Y (b)**			**Y (b)**			**Y (b)**			**Y (b)**	

a) SEP and DEP are beyond the maximum foraging range of breeding red-throated diver from this SPA (**Table 7-4** of the **HRA Screening Report**). Great skua was not recorded at SEP and DEP during the breeding season. There is no impact pathway for either qualifying feature during the breeding season and they can therefore be screened out.

b) Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:

- Red-throated diver: 0.3% of the birds present during the winter, and 15.6% of birds present during spring and autumn migrations.
- Great skua: 2.0% of birds present during autumn migration, and 0% of birds present during winter.

The proportions of great skua are considered sufficiently large for this species to be screened in during autumn migration. This also applies to red-throated diver in the migration seasons.

Site	**132**
Name of European Site:	**Rousay SPA**
Distance to SEP and DEP (km)	**736.8**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding arctic tern		N (a)			N (a)			N (a)			N (a)	
Breeding seabird assemblage including as named features guillemot, Arctic skua, kittiwake, fulmar		N (a)			N (a)			N (a)			N (a)	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabirds included as qualifying features of this SPA except fulmar and kittiwake. For Arctic tern, Arctic skua and guillemot, no impact pathway exists during the breeding season; these qualifying features are therefore screened out.

Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.

Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding gannet and kittiwake from this SPA would regularly forage at DEP or SEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, these qualifying features are screened out.

Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:

Arctic tern: Approximately 0.1% of birds present during autumn and spring migrations.
Arctic skua: Approximately 0.3% of birds present during autumn migration and 0% during spring migration.
Kittiwake: Approximately 0.4% of birds present during autumn migration and 0.5% during spring migration.

Guillemot: Approximately 0.9% of birds present during non-breeding season.

Fulmar): Approximately 0.3% of birds present during autumn and spring migration seasons.

These proportions are considered sufficiently small for all qualifying features to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of birds present at SEP and DEP originating from this SPA are very low, so LSE can be ruled out and these qualifying features are screened out.

Site	**133**														
Name of European Site:	**Sälöfjorden SAC**														
Distance to SEP and DEP (km)	**831 and 808**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	**134**														
Name of European Site:	**Sanday SAC**														
Distance to SEP and DEP (km)	**700 and 690**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	135														
Name of European Site:	SBZ 1 / ZPS 1 SAC														
Distance to SEP and DEP (km)	226 and 228														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	136											
Name of European Site:	Scapa Flow pSPA											
Distance to SEP and DEP (km)	660 and 650											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding red-throated diver		N (a)			N (a)			N (a)			N (a)	
Non-breeding migratory waterbird assemblage including Non-breeding great northern diver, black-throated diver, Slavonian grebe, and shag		N (b)			N (b)			N (b)			N (b)	

a) SEP and DEP are beyond the maximum foraging range of breeding red-throated diver (**Table 7-4** of the **HRA Screening Report**), meaning that no impact pathway exists during the breeding season.
b) Great northern diver, black-throated diver and Slavonian grebe were not recorded within the SEP and DEP survey area. There is therefore no impact pathway and these qualifying features can be screened out. It is not considered likely that the non-breeding shag of this SPA will occur at SEP and DEP. Therefore, there is no impact pathway and this qualifying feature is screened out. Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying waterfowl species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out (**Table 7-4** of the **HRA Screening Report**).

Site	137											
Name of European Site:	Seas off Foula SPA											
Distance to SEP and DEP (km)	760 and 750											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding seabird assemblage including great skua, fulmar, Arctic skua, guillemot, puffin		N (a)			N (a)			N (a)			N (a)	
Non-breeding seabird assemblage including fulmar, great skua, guillemot		N (b)			N (b)			N (b)			N (b)	

a) This is a marine SPA designated for offshore aggregations of seabirds during the breeding and non-breeding season. Great skua and Arctic skua were not recorded within the SEP and DEP survey area during the breeding season. Therefore, there is no impact pathway and both qualifying features are screened out. SEP and DEP are beyond the maximum foraging range of all other breeding seabirds included as qualifying features of this SPA except fulmar (**Table 7-4** of the **HRA Screening Report**). Therefore, no impact pathway exists for guillemot and puffin and they are screened out. Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.

b) Features of the non-breeding seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out. It is considered unlikely that birds associated with the non-breeding seabird assemblage would be present at SEP and DEP outside the non-breeding season, based on the fact that birds present at SEP and DEP during the breeding season are likely to originate from colonies closer to the Projects. The qualifying features of this assemblage are therefore screened out (**Table 7-4** of the **HRA Screening Report**).

Site	138											
Name of European Site:	Seevogelschutzgebiet Helgoland SPA											
Distance to SEP and DEP (km)	450 and 432											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding seabird assemblage including as named features razorbill, fulmar, herring gull, lesser black-backed gull, kittiwake, gannet, guillemot		N (a)			N (a)			N (a)			N (c)	
Non-breeding seabird assemblage including razorbill, black-throated diver, red-throated diver, common gull, lesser black-backed gull, little gull, kittiwake, common scoter, red-necked grebe, eider, common tern, Arctic tern, Sandwich tern, gannet, guillemot		N (b)			N (b)			N (b)			N (c)	

a) Tracking data from gannets breeding on Helgoland show these birds do not travel in the direction of or as far as the SEP and DEP sites despite this site being within theoretical maximum foraging range of gannet. SEP and DEP is beyond the maximum foraging range of other seabird species at Seevogelschutzgebeit Helgoland SPA. Proportions of these populations migrating through SEP and DEP are likely to be very small relative to BDMPS regional populations (**Table 7-4** of the **HRA Screening Report**).

b) Migrations of birds from this SPA are likely to result in negligible numbers passing through the SEP and DEP sites during migration relative to the size of BDMPS regional populations, not only because the sites are 461km apart, but also because nonbreeding seabirds from this SPA are likely to migrate predominantly along the continental coast of the North Sea towards northern breeding grounds rather than across the southern North Sea.

c) The predicted effect attributable to SEP and DEP is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Seevogelschutzgebeit Helgoland SPA (**Table 7-4** of the **HRA Screening Report**).

Site	**139**														
Name of European Site:	**Skagens Gren og Skagerrak SAC**														
Distance to SEP and DEP (km)	**741 and 718**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**).

Site	**140**														
Name of European Site:	**Soteskär SAC**														
Distance to SEP and DEP (km)	**853 and 830**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017) (**Table 6-4** of the **HRA Screening Report**).

Site	**141**				
Name of European Site:	**Southern North Sea SAC**				
Distance to SEP and DEP (km)	**25.6 and 14.1**				
Site Features	**Likely effect(s) of SEP and DEP**				
	Underwater noise and barrier effects	**Vessel Interactions (increased collision risk)**	**Changes to prey availability**	**Changes to water quality**	**In-combination**

	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	**Y(a)**	N(b)	N(b)

a) SEP and DEP are located outside of the Southern North Sea SAC however it is assumed that all harbour porpoise in the SEP and DEP offshore sites are associated with the SNS SAC. Potential effects from underwater noise and barrier effects; vessel interactions; changes to water quality; changes to prey availability are scoped in. The in-combination effects assessment assesses underwater noise impacts only (**Section 8.4.1.6** of the **RIAA**).
b) Any in-combination effects for offshore wind farms during operation and maintenance or decommissioning have been screened out of further assessment. See **Sections 10.3.4.1.3, 10.3.4.1.4 and 10.3.4.1.5 of Appendix 10.3 Marine Mammals CIA Screening** (document reference 6.3.10.3) for further information.

Site	**142**											
Name of European Site:	**St Abb's Head to Fast Castle SPA**											
Distance to SEP and DEP (km)	**360**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features herring gull, razorbill, guillemot, shag		N (a)			N (a)			N (a)			N (b)	
Breeding kittiwake		N (b)			N (b)			N (b)			N (b)	
Non-Breeding seabird assemblage including as named features herring gull, razorbill, kittiwake, shag		N (c)			N (c)			N (c)			N (c)	
Non-breeding guillemot		**Y (d)**			**Y (d)**			**Y (d)**			**Y (d)**	

a) SEP and DEP are beyond the maximum foraging range of razorbill, guillemot, herring gull and shag from this SPA (**Table 7-4** of the **HRA Screening Report**). There is consequently no impact pathway for these qualifying features during the breeding season and they are screened out.
b) SEP and DEP are also beyond the mean maximum but within the maximum foraging range of kittiwake from this SPA (**Table 7-4** of the **HRA Screening Report**). Due to the distance between SEP and DEP and this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA and Farne Islands SPA (Wakefield et al., 2017), it is considered highly unlikely that breeding birds from this SPA would regularly forage at SEP or DEP during the breeding season in sufficient numbers to result in LSE. Therefore, this qualifying feature is also screened out during the breeding season despite an impact pathway being identified.
c) Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
    - Razorbill: Approximately 0.7% of birds present during the migration seasons, and 0.4% during the winter.
    - Guillemot: Approximately 4.1% of birds present during the non-breeding season.
    - Kittiwake: Approximately 0.8% of birds present during the autumn migration season and 0.9% of birds present during the spring migration.
    - Herring gull: Approximately 0.2% of birds present during the non-breeding season.
    - Shag: Not present during the non-breeding season.

    Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, except for guillemot, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore they are screened out,
d) Except for guillemot, which is screened in.

Site	143														
Name of European Site:	Steingrund SAC														
Distance to SEP and DEP (km)	458 and 440														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	144														
Name of European Site:	Store Rev SCI														
Distance to SEP and DEP (km)	708 and 685														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**).

Site	145											
Name of European Site:	Stour & Orwell Estuaries SPA and Ramsar											
Distance to SEP and DEP (km)	125 and 115											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D

Non-breeding migratory water bird aseemblage		N (a)			N (a)			N (a)			N (a)	
Breeding avocet		N (a)			N (a)			N (a)			N (a)	

a) Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying bird species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in impacts substantial enough to result in LSE. These qualifying features are therefore screened out.

Site	**146**														
Name of European Site:	**Strandenge på Læsø og havet syd herfor SAC**														
Distance to SEP and DEP (km)	**750 and 728**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017).

Site	**147**											
Name of European Site:	**Sumburgh Head SPA**											
Distance to SEP and DEP (km)	**750 and 740**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Breeding seabird assemblage including as named features kittiwake, fulmar, guillemot, Arctic tern		N (a)			N (a)			N (a)			N (b)	

a) Sumburgh Head SPA is beyond maximum foraging range of designated seabird species so has no breeding season connectivity (**Table 7-4** of the **HRA Screening Report**). Proportions of these populations migrating through the SEP and DEP sites are likely to be very small relative to BDMPS.
b) The predicted effect attributable to SEP and DEP is so small that it would not significantly contribute to or alter the overall in-combination assessment for these features at Sumburgh Head SPA.

Site	148														
Name of European Site:	Sydlige Nordsø SAC														
Distance to SEP and DEP (km)	443 and 422														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	149														
Name of European Site:	Sylter Außenriff SCI														
Distance to SEP and DEP (km)	388 and 367														
Marine mammals															
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Fish															
Site Features	Likely effect(s) of SEP and DEP														
	Permanent / long term habitat loss			Temporary physical disturbance / habitat loss			Increased suspended sediment and re-deposition			Re-mobilisation of contaminated sediments			Underwater noise and vibration			Impacts on commercially exploited species associated with their displacement from the area of activity / works			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
River lamprey	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
Twaite shad	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

b) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE.

Site	**150**																
Name of European Site:	**Teesmouth and Cleveland Coast SPA and Ramsar**																
Distance to SEP and DEP (km)	**204 and 202**																
Site Features	**Likely effect(s) of SEP and DEP**																
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**							
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**					
Non-breeding knot, redshank, ruff and waterfowl		N (a)			N (a)			N (a)			N (a)						
Non-breeding Sandwich tern		N (b)			N (b)			N (b)			N (b)						
Breeding little tern		N (c)			N (c)			N (c)			N (c)						

a) Due to the distance at which this SPA is situated from SEP and DEP, migrations of qualifying bird species to and from the SPA are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out.

b) Sandwich terns from the SPA will be present at SEP and DEP on migration, meaning an impact pathway does exist due to collision risk, and possibly displacement. The proportion of the population present is predicted to be sufficiently large (5.0%) compared with the wider BDMPS (Furness, 2015) to screen this qualifying feature in. However, as this species was recorded in such small numbers at SEP and DEP outside the breeding season, LSE is not considered possible, and this species can therefore be screened out.

c) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.

Site	**151**																	
Name of European Site:	**The Broads SAC**																	
Distance to SEP and DEP (km)	**9.5km away from the onshore cable corridor area**																	
Site Features	**Likely effect(s) of SEP and DEP**																	
	Permanent loss			**Temporary physical disturbance**			**Smothering due to increased suspended sediment**			**Re- mobilisation of contaminated sediments**			**Underwater noise and vibration**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*.	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Natural eutrophic lakes with *Magnopotamion* or	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

Hydrocharition - type vegetation																		
Transition mires and quaking bogs	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Alkaline fens	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) No overlap therefore no direct effect, and beyond the range of potential significant indirect effect (**Table 3-2** of the **HRA Screening Report**).

Site	**152**
Name of European Site:	**The Wash and North Norfolk Coast SAC**
Distance to SEP and DEP (km)	**8.4 and 24.3**

Marine Mammals

Site Features	**Likely effect(s) of SEP and DEP**																	
	Underwater noise			**Barrier effects, vessel Interactions (increased collision risk), disturbance at seal haul out sites, disturbance to foraging harbour seals at sea**			**Changes to water quality**			**Changes to prey availability**			**In-combination**					
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**			
Harbour seal	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	**Y (a)**	N (d)	N (d)			

Benthic Habitats

Site Features	**Permanent / long term habitat loss**			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment**			**Effects on bedload sediment transport**			**Underwater noise and vibration**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Sandbanks which are slightly covered by sea water all the time (subtidal snadbanks)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (c)	N (c)	N (c)		**Y (c)**		N (b)		N (b)	N (b)	N (b)	N (b)
Mudflats and sandflats not covered by seawater at low tide	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)	N (b)

Large shallow inlets and bays	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)	N (b)		N (b)		N (b)		N (b)	N (b)	N (b)	N (b)

a) Potential effects from underwater noise; vessel interactions; changes to water quality; changes to prey availability; and disturbance at seal haul-out sites for foraging harbour seal cannot be ruled out (**Table 6-4** of the **HRA Screening Report**). Nearest SAC for harbour seal to SEP and DEP. Assumed that all harbour seal in the SEP and DEP area are associated with this SAC. The in-combination effects assessment assesses underwater noise impacts only (see **Section 8.4.4.4** of the **RIAA**)
b) SEP and DEP are outside the ZoI and are therefore screened out. Indirect far-field effects are limited to 1km of the works and for the duration of 1 tidal cycle
c) Natural England's AoO states that water flow (tidal current) changes including sediment transport is a low-risk pressure from cable laying, burial and protection activities. 'Sandbanks which are slightly covered by sea water all the time' are potentially sensitive to this pressure because one of its component habitats, subtidal mud, is sensitive to the pressure. However, subtidal sand is assessed as not sensitive (Natural England, 2017b). Evidence suggests that a LSE on the SAC is unlikely, but it cannot be entirely ruled out at this stage.
d) Any in-combination effects for offshore wind farms during operation and maintenance or decommissioning have been screened out of further assessment. See **Sections 10.3.4.1.3, 10.3.4.1.4 and 10.3.4.1.5 of Appendix 10.3 Marine Mammals CIA Screening** (document reference 6.3.10.3) for further information.

Site	**153**											
Name of European Site:	**The Wash SPA and Ramsar**											
Distance to SEP and DEP (km)	**43.3 and 61.6**											
Site Features	**Likely effect(s) of SEP and DEP**											
	Collision Risk			**Displacement/Disturbance**			**Barrier Effect**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Non-breeding migratory waterbird assemblage including Bewick's swan, pink-footed goose and dark-bellied brent goose		**Y (a)**									**Y (a)**	
Breeding common tern		N (b)			N (b)			N (b)			N (b)	
Breeding little tern		N (c)			N (c)			N (c)			N (c)	

a) Potential collision risk of migrations of waterfowl to and from the SPA represents an impact pathway which could result in LSE, due to the relatively close proximity of the SPA to SEP and DEP. These qualifying features are therefore screened in.
b) SEP and DEP are beyond the maximum foraging range of common tern breeding at this SPA (**Table 7-4** of the **HRA Screening Report**), and therefore no impact pathway exists for this population. The population is therefore screened out. The common tern population of this SPA would represent approximately 0.3% of birds recorded at SEP and DEP during migration seasons. This qualifying feature is therefore screened out as despite an impact pathway being identified, potential impacts on such a small number of birds would not be sufficiently large to represent LSE.
c) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.

Site	**154**
Name of European Site:	**Tregor Goëlo SAC**
Distance to SEP and DEP (km)	**546 and 560**

Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of the SEP and DEP sites and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage (SCOS, 2017).

Site	**155**
Name of European Site:	**Troup, Pennan and Lion`s Heads SPA**
Distance to SEP and DEP (km)	**540 and 530**

Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding seabird assemblage including as named features razorbill, guillemot, herring gull		N (a)			N (a)			N (a)			N (a)	
Breeding kittiwake		N (b)			N (b)			N (b)			N (b)	
Breeding fulmar		N (c)			N (c)			N (c)			N (c)	
Non-breeding kittiwake and guillemot		**Y (d)**			**Y (d)**			**Y (d)**			**Y (d)**	
Non-breading seabird assemblage including razorbill, herring gull and fulmar		N (e)			N (e)			N (e)			N (e)	

a) SEP and DEP are beyond the maximum foraging range of breeding guillemot, herring gull and razorbill. There is therefore no impact pathway for these qualifying features during this season and they are screened out. SEP and DEP are within the mean maximum foraging range of fulmar, and the maximum foraging range of kittiwake (**Table 7-4** of the **HRA Screening Report**).

b) Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out.

c) Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.

d) Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:

- Kittiwake: Approximately 3.4% of birds present during autumn migration and 4.1% during spring migration.
- Guillemot: Approximately 1.6% of birds present during non-breeding season.
- Fulmar: Approximately 0.6% of birds present during autumn and spring migration seasons.
- Herring gull: Approximately 1.2% of birds present during non-breeding season.
- Razorbill: Approximately 1.0% of birds present during autumn and spring migration seasons and 0.6% of birds present during the winter season.

The proportions of kittiwake and guillemot predicted to be present in the SEP and DEP survey area outside the breeding season that are from this SPA are sufficiently large for LSE to be considered a possibility; therefore these qualifying features are screened in.

e) Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore they are screened out.

Site	156														
Name of European Site:	Unterems und Außenems SCI														
Distance to SEP and DEP (km)	377 and 360														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	157														
Name of European Site:	Vadehavet med Ribe Å, Tved Å og Varde Å vest for Varde SAC														
Distance to SEP and DEP (km)	508 and 489														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out (**Table 6-4** of the **HRA Screening Report**). The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	158														
Name of European Site:	Venø, Venø Sund SAC														
Distance to SEP and DEP (km)	602 and 579														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	159														
Name of European Site:	Vlaamse Banken SAC														
Distance to SEP and DEP (km)	192														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk) and disturbance at seal haul outs			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	160														
Name of European Site:	Vlakte van de Raan SCI/SAC														
Distance to SEP and DEP (km)	173.9														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D

Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	**161**																			
Name of European Site	**Voordelta SAC**																			
Distance to SEP and DEP (km)	**214 and 209**																			
Marine Mammals																				
Site Features	**Likely effect(s) of SEP and DEP**																			
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**							
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**					
Harbour porpoise	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)					
Grey seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)					
Harbour seal	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)	N (a)		N (a)	N (a)	N (a)	N (a)					
Fish																				
Site Features	**Likely effect(s) of SEP and DEP**																			
	Permanent / long term habitat loss			**Temporary physical disturbance / habitat loss**			**Increased suspended sediment and re-deposition**			**Re-mobilisation of contaminated sediments**			**Underwater noise and vibration**			**Impacts on commercially exploited species associated with their displacement from the area of activity / works**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Sea lamprey	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
River lamprey	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
Allis shad	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)
Twaite shad	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)	N(b)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise, the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

b) The distance between the Projects and the site precludes direct impact upon the site and its supporting habitats. Fish associated with the SAC could in theory be present in the vicinity of SEP and DEP but given the distance of the Projects they would be present in low numbers. The absence of designated sites for these species on the UK Southern North Sea coast reflects the lower importance of the area to this species and this site is therefore screened out (**Table 5-2** of the **HRA Screening Report**).

Site	162														
Name of European Site:	Vrångöskärgården SAC														
Distance to SEP and DEP (km)	821 and 798														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	163														
Name of European Site:	Waddenzee SAC														
Distance to SEP and DEP (km)	230 and 214														
Site Features	Likely effect(s) of SEP and DEP														
	Underwater noise			Vessel Interactions (increased collision risk)			Changes to prey availability			Changes to water quality			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D
Harbour porpoise	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Grey seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE (**Table 6-4** of the **HRA Screening Report**). For harbour porpoise the site is outside of the North Sea MU and is therefore screened out. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). Grey seals will typically forage in the open sea and return regularly to land to haul-out, although they may frequently travel up to 100km between haul-out sites. Foraging trips generally occur within 100km of their haul-out sites, although grey seal can travel up to several hundred kilometres offshore to forage.

Site	164											
Name of European Site:	West Westray SPA											
Distance to SEP and DEP (km)	720 and 710											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding seabird assemblage including as named features, Arctic tern, razorbill, Arctic skua, guillemot		N (a)			N (a)			N (a)			N (a)	
Breeding fulmar		N (b)			N (b)			N (b)			N (b)	
Breeding kittiwake		N (c)			N (c)			N (c)			N (c)	
Non-breeding Arctic tern		N (d)			N (d)			N (d)			N (d)	

Non-breeding guillemot		**Y (e)**			**Y (e)**			**Y (e)**			**Y (e)**	
Non-breeding seabird assemblage including razorbill, Arctic skua, fulmar, kittiwake		N (f)			N (f)			N (f)			N (f)	

a) SEP and DEP are beyond the maximum foraging range of all breeding seabirds included as qualifying features of this SPA except fulmar and kittiwake (**Table 7-4** of the **HRA Screening Report**). For all other qualifying features, no impact pathway exists during the breeding season; therefore they are screened out.
b) Breeding fulmars from this SPA are highly unlikely to regularly occur at SEP and DEP due to the distance between the SPA and SEP and DEP, and the habitat preferences of this species (Edwards, 2015). Therefore, whilst an impact pathway exists, these qualifying features are screened out on the basis that sufficient numbers to result in LSE are considered unlikely to be present at SEP and DEP.
c) Due to utilisation distribution data indicating that the Project sites will not be used by birds from this SPA, and parapatric competition with birds from (amongst others) the Flamborough and Filey Coast SPA, Forth Islands SPA and Farne Islands SPA (Wakefield et al., 2017), and the distance between the SPA and SEP and DEP, it is considered highly unlikely that breeding kittiwake from this SPA would regularly forage at SEP or DEP during the breeding season in numbers sufficient for LSE to be a possibility. Therefore, whilst an impact pathway exists, this qualifying feature is screened out.
d) Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
    - Arctic tern: Approximately 0.8% of birds present during autumn and spring migration seasons.
    - Guillemot: Approximately 4.8% of birds present during non-breeding season.
    - Razorbill: Approximately 0.3% of birds present during autumn and spring migration seasons, and 0.2% of birds present during winter season.
    - Kittiwake: Approximately 2.8% of birds present during autumn migration and 3.3% during spring migration.
    - Arctic skua: Approximately 0.2% of birds present during autumn migration season and 0% of birds present during spring migration season.
    - Fulmar: Approximately 0.2% of birds present during autumn and spring migration seasons.

    These proportions are considered sufficiently small for Arctic tern to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of birds present at SEP and DEP originating from this SPA are very low, so LSE can be ruled out and these qualifying features are screened out.
e) The proportion of guillemot predicted to be present in the SEP and DEP survey area that are from this SPA outside the breeding season is sufficiently large for LSE to be considered a possibility; therefore this qualifying feature is screened in.
f) Features of the seabird assemblage of this SPA could be present at SEP and DEP during the non-breeding season. They could therefore be susceptible to a range of impact pathways. However, it is not considered likely that sufficient numbers of the seabird assemblage would be present at SEP and DEP for LSE to occur. Therefore, they are screened out.

Site	**165**														
Name of European Site:	**Yell Sound Coast SAC**														
Distance to SEP and DEP (km)	**807 and 796**														
Site Features	**Likely effect(s) of SEP and DEP**														
	Underwater noise			**Vessel Interactions (increased collision risk)**			**Changes to prey availability**			**Changes to water quality**			**In-combination**		
	C	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**	**C**	**O**	**D**
Harbour seal	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)	N(a)		N(a)	N(a)	N(a)	N(a)

a) The distance between the potential impact range of SEP and DEP and the extent of any effect on individuals from this site would result in no potential for LSE. The typical and average foraging range for harbour seal is 50-80km (SCOS, 2017). (**Table 6-4** of the **HRA Screening Report**).

Site	166											
Name of European Site:	Ythan Estuary, Sands of Forvie and Meikle Loch SPA											
Distance to SEP and DEP (km)	480											
Site Features	Likely effect(s) of SEP and DEP											
	Collision Risk			Displacement/Disturbance			Barrier Effect			In-combination		
	C	O	D	C	O	D	C	O	D	C	O	D
Breeding Sandwich tern and common tern		N (a)			N (a)			N (a)			N (a)	
Breeding little tern		N (b)			N (b)			N (b)			N (b)	
Non-breeding common tern		N (c)			N (c)			N (c)			N (c)	
Non-breeding Sandwich tern		**Y (d)**									**Y (d)**	
Non-breeding migratory waterbird assemblage		N (e)			N (e)			N (e)			N (e)	

a) SEP and DEP are beyond the maximum foraging range of Sandwich tern and common tern breeding at this SPA and Ramsar site (**Table 7-4** of the **HRA Screening Report**). There is no impact pathway for these qualifying features during the breeding season, and they are therefore screened out.
b) Little tern has not been recorded at SEP and DEP and has a very coastal distribution. There is consequently no impact pathway for this population, and this qualifying feature is screened out.
c) Outside the breeding season, the proportions of birds estimated to be present at SEP and DEP that are from this SPA and Ramsar site (according to the composition of the wider relevant BDMPS of Furness (2015)) are as follows:
   - Common tern: Approximately <0.1% of birds present during autumn and spring migration seasons.
   - Sandwich tern: Approximately 4.3% of birds present during autumn and spring migration seasons.

   These proportions are considered sufficiently small for common tern to be screened out at these times of year. Whilst an impact pathway has been identified, predicted proportions of birds present at SEP and DEP originating from this SPA and Ramsar site are very low, so LSE can be ruled out and this qualifying feature screened out.
d) Sandwich tern from this SPA and Ramsar site are screened in outside the breeding season as proportions predicted to be present at SEP and DEP are considered sufficiently large for LSE to be possible due to collision risk, and potentially displacement.
e) Due to the distance at which this SPA and Ramsar site is situated from SEP and DEP, migrations of qualifying waterfowl species to and from the SPA and Ramsar site are likely to result in negligible numbers passing through SEP and DEP. This means that whilst a collision impact pathway exists, it is anticipated that numbers present would not be sufficient to result in LSE. These qualifying features are therefore screened out.

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