



FIVE ESTUARIES OFFSHORE WIND FARM

VOLUME 5, REPORT 4.3: HABITATS REGULATIONS ASSESSMENT SCREENING MATRICES – REVISION E (CLEAN)

Application Reference	EN010115
Application Document Number	5.4.3
Revision	E
Pursuant to	Decision Period
Ecodoc Number	005076721-08
Date	August 2025



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Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
A	Mar-24	ES	GoBe	GoBe	VE OWFL
B	Jan-25	Deadline 5	GoBe	GoBe	VE OWFL
C	March-25	Deadline 7	GoBe	GoBe	VE OWFL
D	March-25	Deadline 8	GoBe	GoBe	VE OWFL
E	Aug-25	Decision Period	GoBe	GoBe	VE OWFL



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DEFINITION OF ACRONYMS

Term	Definition
EMF	Electromagnetic Field
ECC	Export Cable Corridor
HRA	Habitats Regulations Assessment
INNS	Invasive Non-Native Species
LSE	Likely Significant Effect
OWF	Offshore Wind Farm
PEIR	Preliminary Environmental Impact Report
PINS	Planning Inspectorate
RIAA	Report to Inform Appropriate Assessment
SAC	Special Area of Conservation
SPA	Special Protected Area
VE	Five Estuaries
VEOWFL	Five Estuaries Offshore Windfarm Limited
WTG	Wind Turbine Generator
Zol	Zone of Influence

UNITS

Units	Definition
km	Kilometre
cm	Centimetre
m	Metre
ha	Hectare
kg	Kilogram



1 MATRIX KEY

✓ = Likely Significant Effect cannot be excluded

X = Likely Significant Effect can be excluded

Evidence for, or against adverse effects on European site qualifying feature and Likely Significant Effect is detailed within the footnotes to the integrity matrices

C = construction

O = operation and maintenance

D = decommissioning



= Effect not relevant to feature (no pathway)



2 INDEX TO MATRICES

2.1.1 This appendix presents the Screening matrices for Five Estuaries Offshore Wind Farm (OWF, hereafter 'VE') prompted by Five Estuaries Offshore Windfarm Limited (hereafter 'the Applicant') in accordance with the structure and format specified in PINS Advice Note 10 (version 8, from November 2022).

Table 2.1 Index to matrices

Matrix Number	European site included within the assessment
1.	Vlaamse Banken SAC
2.	Thanet Coast SAC
3.	Bancs des Flandres SAC
4.	Margate and Long Sands (SAC)
5.	Alde, Ore and Butley Estuaries SAC
6.	Orfordness – Shingle Street SAC
7.	Essex Estuaries SAC
8.	Deben Estuary Ramsar
9.	Deben Estuary SPA
10.	Dengie (Mid-Essex Coast Phase 1) SPA
11.	Dengie (Mid-Essex Coast Phase 1) Ramsar
12.	Stour and Orwell Estuaries Ramsar
13.	Colne Estuary (Mid-Essex Coast Phase 2) Ramsar
14.	Alde-Ore Estuary Ramsar
15.	Foulness (Mid-Essex Coast Phase 5) Ramsar
16.	Berwickshire and North Northumberland Coast SAC
17.	Humber Estuary SAC
18.	Humber Estuary Ramsar
19.	Moray Firth SAC
20.	Southern North Sea SAC
21.	Wash and North Norfolk Coast SAC
22.	Transboundary sites for Harbour porpoise
23.	Transboundary Sites for Seals



Matrix Number	European site included within the assessment
24.	Outer Thames Estuary SPA
25.	Alde-Ore Estuary SPA
26.	Minsmere- Walberswick SPA
27.	Minsmere- Walberswick Ramsar
28.	Hamford Water SPA
29.	Thanet Coast and Sandwich Bay SPA
30.	Greater Wash SPA
31.	Colne Estuary (Mid-Essex Coast Phase 2) SPA
32.	Foulness (Mid-Essex Coast Phase 5) SPA
33.	Breydon Water SPA
34.	Blackwater Estuary SPA
35.	Blackwater Estuary Ramsar
36.	Medway Estuary and Marshes SPA
37.	Dungeness, Romney Marsh and Rye Bay SPA
38.	North Norfolk Coast SPA
39.	North Norfolk Coast Ramsar
40.	The Wash SPA
41.	Gibraltar Point SPA
42.	Humber Estuary SPA
43.	Flamborough and Filey Coast SPA
44.	Teesmouth and Cleveland Coast SPA
45.	Northumbria Coast SPA
46.	Northumbria Coast Ramsar
47.	Northumberland Marine SPA
48.	Coquet Island SPA
49.	Farne Islands SPA
50.	Aberdaron Coast and Bardsey Island SPA
51.	Lindisfarne SPA
52.	Skomer Skokholm and the Seas off Pembrokeshire



Matrix Number	European site included within the assessment
53.	St Abb's Head to Fast Castle SPA
54.	Grassholm SPA
55.	Imperial Dock Lock, Leith SPA
56.	Forth Islands SPA
57.	Ailsa Craig SPA
58.	Fowlsheugh SPA
59.	Isles of Scilly SPA
60.	Ythan Estuary, of Sands of Forvie and Meikle Loch SPA
61.	Ythan Estuary, Sands of Forvie and Meikle Loch Ramsar
62.	Buchan Ness to Collieston Coast SPA
63.	Rathlin Island SPA
64.	Loch of Strathbeg SPA
65.	Troup, Pennan and Lion's Heads SPA
66.	Inner Moray Firth SPA
67.	Cromarty Firth SPA
68.	Rum SPA
69.	East Caithness Cliffs SPA
70.	North Caithness Cliffs SPA
71.	Copinsay SPA
72.	Mingulay and Berneray SPA
73.	Hoy SPA
74.	Auskerry (UK) SPA
75.	Handa SPA
76.	Shiant Isles SPA
77.	Cape Wrath SPA
78.	Calf of Eday SPA
79.	Rousay SPA
80.	Marwick Head SPA
81.	Fair Isle SPA



Matrix Number	European site included within the assessment
82.	West Westray SPA
83.	Papa Westray (North Hill and Holm) SPA
84.	Sule Skerry and Sule Stack SPA
85.	Sumburgh Head SPA
86.	Mousa SPA
87.	Noss SPA
88.	Flannan Isles SPA
89.	St Kilda SPA
90.	North Rona and Sula Sgeir SPA
91.	Foula SPA
92.	Papa Stour SPA
93.	Fetlar SPA
94.	Ronas Hill-North Roe and Tingon SPA
95.	Hermaness, Saxa Vord and Valla Field SPA
96.	Ramna Stacks and Gruney SPA
97.	Southern Waters of Gibraltar SPA
98.	Vlakte van de Raan
99.	Westerschelde & Saeftinghe
100.	Voordelta
101.	Hamford Water SAC
102.	Hamford Water Ramsar
103.	Stour and Orwell Estuaries SPA and Ramsar
104.	Abberton Reservoir SPA
105.	Abberton Reservoir Ramsar
Proposed Compensation Site at Orford Ness	
106.	Alde-Ore Estuary Ramsar
107.	Alde-Ore Estuary SPA
108.	Orfordness – Shingle Street SAC
109.	Outer Thames Estuary SPA



Matrix Number	European site included within the assessment
110.	Alde-Ore Butley Estuaries SAC
111.	Southern North Sea SAC
112.	Sandlings SPA
113.	Staverton Park & The Thicks Wantisden SAC
114.	Minsmere - Walberswick Ramsar
115.	Minsmere - Walberswick SPA
116.	Minsmere to Walberswick Heath & Marshes SAC



3 EFFECTS CONSIDERED

Potential effects on European sites which are considered within the submitted Information to Support the Report to Inform Appropriate Assessment for the Habitats Regulation Assessment (HRA) of VE are provided in Table 3.1 below.

Table 3.1: Potential effects on the European site considered in the matrices

Potential effects on the European site considered in the matrices	
Designations	Impacts Considered in Matrices
Vlaamse Banken SAC	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Underwater noise Collision risk Changes to prey Disturbance at haul out
Thanet Coast SAC	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes
Bancs des Flandres SAC	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Underwater noise Collision risk Changes to prey Disturbance at haul out Barrier effect



Potential effects on the European site considered in the matrices

Margate and Long Sands (SAC)	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes
Alde, Ore and Butley Estuaries SAC	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes
Orfordness – Shingle Street SAC	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes
Essex Estuaries SAC	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes
Deben Estuary Ramsar	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Collision risk
Deben Estuary Ramsar	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effects Changes to physical processes
Dengie (Mid-Essex Coast Phase 1) SPA	Collision risk
Dengie (Mid-Essex Coast Phase 1) Ramsar	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Collision risk
Stour and Orwell Estuaries Ramsar	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Collision risk
Colne Estuary (Mid-Essex Coast Phase 2) Ramsar	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Collision risk
Alde-Ore Estuary Ramsar	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes Collision risk



Potential effects on the European site considered in the matrices

	Changes to prey Barrier effect
Foulness (Mid-Essex Coast Phase 5) Ramsar	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution Invasive Non-native species (INNS) EMF Changes to physical processes
Berwickshire and North Northumberland Coast SAC	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbances Accidental pollution Disturbance at haul out
Humber Estuary SAC	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
Humber Estuary Ramsar	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
Moray Firth SAC	Underwater noise Collision risk Changes to prey Accidental pollution
Southern North Sea SAC	Underwater noise Collision risk



Potential effects on the European site considered in the matrices

	Physical habitat loss/ disturbance Changes to prey Accidental pollution
Wash and North Sea SAC	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution and water quality Disturbance at haul out
Doggersbank (Netherlands) SAC	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
Klaverbank SCI	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
Noordzeekustone SCI	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
SBZ 1 SCI	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution



Potential effects on the European site considered in the matrices

	Disturbance at haul out
SBZ 2 SCI	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
SBZ 3 SCI	Underwater noise Collision risk Changes to prey Physical habitat loss/ disturbance Accidental pollution Disturbance at haul out
Voordelta SCI	Underwater noise Collision risk Changes to prey Accidental pollution and water quality Physical habitat loss/ disturbance Disturbance at haul out
Waddenzee SCI	Underwater noise Collision risk Changes to prey Accidental pollution and water quality Physical habitat loss/ disturbance Disturbance at haul out
Westerschelde & Saeftinghe	Underwater noise Collision risk Changes to prey Accidental pollution and water quality Physical habitat loss/ disturbance Disturbance at haul out
Outer Thames Estuary SPA	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	- Disturbance and displacement - Direct disturbance and displacement - Barrier effect - Habitat loss - Collision risk
Alde-Ore Estuary SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk
Minsmere-Walberswick SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk
Minsmere-Walberswick Ramsar	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effects - Collision risk
Hamford Water SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk - Pollution (water quality) - Pollution (air quality) - Decreases in water quantity - Loss of foraging and roosting habitat outside of the SPA
Thanet Coast and Sandwich Bay SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect
Greater Wash SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk



Potential effects on the European site considered in the matrices

Colne Estuary (Mid-Essex Coast Phase 2) SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk - Physical habitat loss/ disturbance - Suspended sediment/ deposition - Accidental pollution - INNS - Changes to physical processes
Foulness (Mid-Essex Coast Phase 5) SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect
Breydon Water SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect
Blackwater Estuary (Mid-Essex Coast Phase 4) SPA	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk - Loss of foraging and roosting habitat outside the SPA - Disturbance/ displacement of birds outside SPA - Water quality - Decreases in water quantity - Decreases in air quality
Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar	- Changes in prey availability and behaviour - Direct disturbance and displacement - Barrier effect - Collision risk - Loss of foraging and roosting habitat outside the SPA - Disturbance/ displacement of birds outside



Potential effects on the European site considered in the matrices

	Water quality Decreases in water quantity Decreases in air quality
Medway Estuary and Marshes SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect
Dungeness, Romney Marsh and Rye Bay SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect
North Norfolk Coast SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect
The Wash SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect
Gibraltar Point SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect
Humber Estuary SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect
Flamborough and Filey Coast SPA	Changes in prey availability and behaviour Collision risk Direct disturbance and displacement Barrier effect In-combination
Teesmouth and Cleveland Coast SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effects
Northumbria Coast SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effect Collision risk
Ailsa Craig SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Fowlsheugh SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Isles of Scilly SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Ythan Estuary, of Sands of Foryie and Meikle Loch SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Ythan Estuary, Sands of Foryie and Meikle Loch Ramsar	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Buchan Ness to Collieston Coast SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Rathlin Island SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Loch of Strathbeg SPA	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effect Collision risk
Troup, Pennan and Lion's Heads SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Inner Moray Firth SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Cromarty Firth SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Rum SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
East Caithness Cliffs SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
North Caithness Cliffs SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Copinsay SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Mingulay and Berneray SPA	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effect Collision risk
Hoy SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Auskerry (UK) SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Handa SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Shiant Isles SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Cape Wrath SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Calf of Eday SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Rousay SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Marwick Head SPA	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effect Collision risk
Fair Isle SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
West Westray SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Papa Westray (North Hill and Holm) SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Sule Skerry and Sule Stack SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Sumburgh Head SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Mousa SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Noss SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Flannan Isles SPA	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effect Collision risk
St Kilda SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
North Rona and Sula Sgeir SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Foula SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Papa Stour SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Fetlar SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Ronas Hill-North Roe and Tingon SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Hermaness, Saxa Vord and Valla Field SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Ramna Stacks and Gruney SPA	Changes in prey availability and behaviour



Potential effects on the European site considered in the matrices

	Direct disturbance and displacement Barrier effect Collision risk
Southern Waters of Gibraltar SPA	Changes in prey availability and behaviour Direct disturbance and displacement Barrier effect Collision risk
Vlakte van de Raan	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution INNS EMF Underwater noise Changes to prey
Westerschelde & Saeftinghe	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution INNS EMF Underwater noise Changes to prey
Voordelta	Physical habitat loss/ disturbance Suspended sediment/ deposition Accidental pollution INNS EMF Underwater noise Changes to prey
Hamford Water SAC	Impacts on supporting populations, food plant and potential habitat outside of the SAC Water quality: pollution from site run-off affecting habitat quality Decreases in water quality



Potential effects on the European site considered in the matrices

	Decreases in air quality In-combination
Hamford Water Ramsar	Disturbance of birds outside the Ramsar Water quality: pollution from site run-off affecting prey availability Decreases in water quantity
Stour and Orwell Estuaries SPA	Disturbance of birds outside of the SPA Water quality: pollution from site run-off affecting prey availability Decreases in water quantity Decreases in air quality Loss of foraging and roosting habitat outside the Ramsar In-combination
Abberton Reservoir SPA	Disturbance of birds outside of the SPA Water quality: pollution from site run-off affecting habitat quality Decrease in air quality Loss of foraging and roosting habitat outside the Ramsar In-combination
Abberton Reservoir Ramsar	Disturbance of birds outside the Ramsar Water quality: pollution from site run-off affecting prey availability Decrease in air quality Loss of foraging and roosting habitat outside the Ramsar In-combination
Proposed Compensation Site at Orford Ness	
Alde-Ore Estuary Ramsar	Damage to qualifying interest habitats or the habitats of the qualifying interest species Direct mortality of qualifying interest animals and plants



Potential effects on the European site considered in the matrices

Walberswick SPA	Damage to qualifying interest habitats or the habitats of the qualifying interest species Direct mortality of qualifying interest animals and plants Disturbance of qualifying interest birds due to the presence of workers Release of suspended solids and other pollution into waterways Spread of non-native invasive species Removal of grazing animals affecting vegetation composition Increases in nutrients from bird faeces affecting vegetation composition and water quality Changes in water flows caused by fence lines across ditches In-combination
Minsmere to Walberswick Heaths & Marshes SAC	Damage to qualifying interest habitats or the habitats of the qualifying interest species Direct mortality of qualifying interest animals and plants Release of suspended solids and other pollution into waterways Spread of non-native invasive species Removal of grazing animals affecting vegetation composition Increases in nutrients from bird faeces affecting vegetation composition and water quality Changes in water flows caused by fence lines across ditches In-combination



- Xi No potential for LSE. These features have been screened out from assessment as a result of the distance between VE and the designated site.
- Xj The range between the array areas and designated site combined with the low sensitivity of lamprey to underwater noise (Popper et al., 2014) mean that there is no potential for LSE for these species at this site.
- ✓k The range between the array areas and designated site combined with the high sensitivity of Twaite Shad to underwater noise (Popper et al., 2014) mean that there is a potential for LSE for this species at this site during pile driving and UXO clearance.

End of Matrix 1



HRA Screening Matrix 2: Thanet Coast (SAC)

Name of European site:		Thanet Coast SAC																																			
EU Code:	UK0013107																																				
Distance to Project:	56.14 km to array area																																				
Likely Effects of Project																																					
Effect	Physical habitat loss/disturbance			Suspended sediment/deposition			Accidental pollution			Invasive Non-Native Species (INNS)			EMF			Changes to physical processes																					
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D																			
Reefs	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		Xa		Xa	Xa	Xa																			
Submerged or partially submerged sea caves	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		Xa		Xa	Xa	Xa																			

Evidence supporting conclusions:

Xa There is no potential for LSE as the site sits beyond the benthic subtidal study area as defined by the Zol and therefore has been screened out.

End of Matrix 2



- ✓g Potential for site connectivity is indicated from seal use at sea data. Therefore, there is the potential for some level of interaction between seals and changes in prey associated with VE.
- ✓h It is not possible to screen out potential impacts at haul out sites for seals of this SAC since information on vessel use (movements, routes and levels of traffic) and the associated ports to be used is not yet available.
- Xi The significance of effect at a population level is considered to decrease with distance and the severity of the effect experienced locally. The likelihood and severity of the effect experienced locally is considered to be low and small to negligible. It is determined that significant effects would not therefore manifest on this site after the likelihood and severity of effects on the designated populations have been diluted over distance and could only result in the wider environmental context alone. Therefore, LSE can be discounted in relation to effects alone.

End of Matrix 3



HRA Screening Matrix 4: Margate and Long Sands (SAC)

Name of European site: Margate and Long Sands (SAC)																				
EU Code:			UK0030371																	
Distance to Project:			23.61 km to array area																	
Likely Effects of Project																				
Effect			Physical habitat loss/ disturbance			Suspended sediment/			Accidental pollution			Invasive Non-Native Species (INNS)			EMF			Changes to physical processes		
Stage of Development			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			√a	√a	√a	√a	√a	√a	√a	√a	√a	√a	√a	√a		√a			√a	

Evidence supporting conclusions:

√a Effects cannot be screened out at this stage and therefore there is a potential for LSE.

End of Matrix 4



HRA Screening Matrix 5: Alde, Ore and Butley Estuaries (SAC)

Name of European site:		Alde, Ore and Butley Estuaries SAC																																			
EU Code:	UK0030076																																				
Distance to Project:	37.44 km to array area																																				
Likely Effects of Project																																					
Effect	Physical habitat loss/ disturbance			Suspended sediment/ deposition			Accidental pollution			Invasive Non-Native Species (INNS)			EMF			Changes to physical processes																					
Stage of Development	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D	C	O	D																			
Estuaries	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		Xa		Xa	Xa	Xa																			
Mudflats and sandflats not covered by seawater at low tide	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		Xa		Xa	Xa	Xa																			
Atlantic salt meadows	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa	Xa		Xa		Xa	Xa	Xa																			

Evidence supporting conclusions:

Xa There is no potential for LSE as the site sits beyond the benthic subtidal study area as defined by the Zol and therefore has been screened out.

End of Matrix 5

