FIVE ESTUARIES OFFSHORE WIND FARM

ENVIRONMENTAL STATEMENT

VOLUME 9, DOCUMENT 31: SCHEDULE OF MITIGATION - ROUTEMAP

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Project	Five Estuaries Offshore Wind Farm
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Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
A	Mar 2024	Application	VE OWFL	VE OWFL	VE OWFL

CONTENTS

TABLES

FIGURES

DEFINITION OF ACRONYMS

Term	Definition
CAA	Civil Aviation Authority
CBRA	Cable Burial Risk Assessment
CoCP	Code of Construction Practice
CSIP	Cable Specification and Installation Plan
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
dML	Deemed Marine Licence
EA	Environment Agency
ECC	Export Cable Corridor
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EPSL	European Protected Species Licence
ERCoP	Emergency response Co-operation Plan
ES	Environmental Statement
FLCP	Fisheries Liaison and Co-existence Plan
FLO	Fisheries Liaison Officer
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
GCN	Great Crested Newt
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
HRA	Habitats Regulations Assessment
LBBG	Lesser Black-Backed Gull
LEMP	Landscape and Ecology Management Plan
MCA	Maritime Coastguard Agency
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Plan
MRCC	Maritime Rescue Coordination Centre
NGET	National Grid Electricity Transmission
NtMs	Notice to Mariners
OnSS	Onshore Substation

Term	Definition
OPAMP	Outline Public Access Management Plan
PAD	Protocol for Archaeological Discoveries
PAMP	Public Access Management Plan
PEIR	Preliminary Environmental Impact Assessment
PEMP	Project Environmental Management Plan
PPE	Personal protective equipment
PRoW	Public Right of Way
SMP	Soil Management Plan
SPA	Special Protected Area
SSSI	Site of Special Scientific Interest
TCC	Temporary Construction Compound
UKHO	United Kingdom Hydrographic Office
UXO	Unexploded Ordnance
VE	Five Estuaries Offshore Windfarm
VE OWFL	Five Estuaries Offshore Windfarm Limited
WSI	Written Schemes of Investigation
WTP	Workforce Travel Plan

1 INTRODUCTION

1.1 FIVE ESTUARIES OFFSHORE WIND FARM

1.1.1 This document summarises, all mitigation proposed in the Environmental Statement (ES) for Five Estuaries Offshore Wind Farm (hereafter, VE). The following schedule lists measures proposed and signposts to relevant parts within the Documents, ES Chapters and supporting documents where the commitments are made.

1.1.2 This document of the Environmental Statement (ES) has been drafted by Five Estuaries Offshore Wind Farm Ltd (hereafter 'the Applicant') and introduces the Five Estuaries Offshore Wind Farm project (hereafter referred to as VE), the company that is developing the project, Five Estuaries Offshore Wind Farm Ltd.

1.1.3 VE is a proposed extension project to the operational Galloper Offshore Wind Farm project (Galloper) off the coast of Suffolk (Figure 1.1). VE will have an overall capacity of greater than 100 Megawatts (MW) and therefore constitutes a Nationally Significant Infrastructure Project (NSIP) under Section 15(3) of the Planning Act 2008.

1.1.4 Further details of the project can be found in Volume 6, Part 2, Chapter 1: Offshore Project Description and Volume 6, Part 3, Chapter 1: Onshore Project Description of the Environmental Statement (ES).

1.2 PURPOSE OF THIS DOCUMENT

1.2.1 This document lists the mitigation proposed in the Environmental Impact Assessment (EIA) for VE.

1.2.2 The schedules presented by split by our offshore and onshore chapters;

- Section 1.1, Offshore Schedule of Mitigation,
- Section 2.1, Onshore Schedule of Mitigation,

and lists all measures proposed on a topic-by-topic basis. They are grouped by document relationships and signposts where the commitments are made in the ES, how they are secured within the draft Development Consent Order (DCO) & Deemed Marine Licence (dML) and associated documents.

1.2.3 Monitoring commitments of the Project are captured separately to this document. These were previously included within the Preliminary Environmental Information Report (PEIR), Volume 7, Report 1: Schedule of Monitoring.

1.2.4 For those in relation to Offshore Monitoring Commitments, please refer to;

- Volume 9, Document 32: Offshore in Principle Monitoring Plan

1.2.5 For Onshore Monitoring Commitments previously shown please refer to:

- Volume 9, Report 21: Code of Construction;
- Volume 9, Report 22: Outline Landscape and Ecological Management Plan; and
- Volume 9, Report 24: Outline Construction Traffic Management Plan

1.2.6 For all information on the requirements and conditions which will be secured via the DCO, please review Document 3.1: Draft Development Consent Order.

1.2.7 The offshore ES chapters and supporting documents which Section 2 relates to are as follows:

- Volume 6, Part 2, Chapter 2: Marine Geology, Oceanography and Physical processes
- Volume 6, Part 2, Chapter 3: Marine Water and Sediment Quality
- Volume 6, Part 2, Chapter 4: Offshore Ornithology
- Volume 6, Part 2, Chapter 5: Benthic and Intertidal Ecology
- Volume 6, Part 2, Chapter 6: Fish and Shellfish Ecology
- Volume 6, Part 2, Chapter 7: Marine Mammal Ecology
- Volume 6, Part 2, Chapter 8: Commercial Fisheries
- Volume 6, Part 2, Chapter 9: Shipping and Navigation
- Volume 6, Part 2, Chapter 10: Seascape, Landscape and Visual
- Volume 6, Part 2, Chapter 11: Offshore Archaeology and Cultural Heritage
- Volume 6, Part 2, Chapter 12: Infrastructure and Other Marine Users
- Volume 6, Part 2, Chapter 13: Military and Civil Aviation
- Volume 9, Report 3: Offshore Project Design Principles
- Volume 9, Report 9: Cable Burial Risk Assessment
- Volume 9, Report 16: Outline Fisheries Liaison and Co-Existence Plan
- Volume 9, Report 17: Outline Offshore Operations and Maintenance Plan
- Volume 9, Report 18: Outline Project Environmental Management Plan
- Volume 9, Report 18.1 : Working in Proximity to Wildlife in the Marine Environment
- Volume 9, Report 19: Outline Marine Written Scheme of Investigation

1.2.8 The onshore ES chapters and supporting documents which Section 3 relates to are as follows:

- Volume 6, Part 3, Chapter 2: Landscape and Visual Assessment
- Volume 6, Part 3, Chapter 3: Socio-economic, Tourism and Recreation
- Volume 6, Part 3, Chapter 4: Onshore Biodiversity and Nature Conservation
- Volume 6, Part 3, Chapter 5: Ground Conditions and Land Use
- Volume 6, Part 3, Chapter 6: Hydrology, Hydrogeology and Flood Risk
- Volume 6, Part 3, Chapter 7: Archaeology and Cultural Heritage
- Volume 6, Part 3, Chapter 8: Traffic and Transport
- Volume 6, Part 3, Chapter 9: Airbourne Noise and Vibration
- Volume 6, Part 3, Chapter 10 : Air Quality
- Volume 6, Part 6, Annex 4.18: Five Estuaries Offshore Wind Farm Onshore Biodiversity Net Gain Indicative Design Stage Report
- Volume 9, Report 4: Onshore Substation Design Principles Document
- Volume 9, Report 21: Code of Construction Practice
- Volume 9, Report 22: Outline Landscape and Ecology Management Plan
- Volume 9, Report 24: Outline Construction Traffic Management Plan

- Volume 9, Report 25: Outline Public Access Management Plan
- Volume 9, Report 26: Outline Workforce Travel Plan
- Volume 9, Report 27: Outline Employment, Skills & Education Strategy

1.2.9 All mitigation and monitoring within the Habitats Regulations Derogation (HRA);

- Volume 5, Report 4.1: HRA Site Integrity Matrices;
- Volume 5, Report 4.2: HRA Screening Report; and
- Volume 5, Report 4.3: HRA Screening Matrices

1.2.10 and Lesser black-backed gull (LBBG) compensatory measures;

- Volume 5, Report 5.3: LBBG Compensation: Evidence, Site Selection and Roadmap; and
- Volume 5, Report 5.6: Lesser Black Backed Gull Implementation and Monitoring Plans

are included within the corresponding suite of documents and should be viewed there.

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LEGEND

Project Order Limits

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PROJECT TITLE:

FIVE ESTUARIES OFFSHORE WINDFARM

DRAWING TITLE:

The Five Estuaries Order Limits

VER	DATE	REMARKS	Drawn	Checked
1	26/01/2024	For Issue	SPHB	MB

DRAWING NUMBER: 1.2

SCALE: 1:100,000	PLOT SIZE: A3	DATUM: WGS84	PROJECTION: UTM31N

FIVE ESTUARIES
OFFSHORE WIND FARM

2 SCHEDULES OF MITIGATION - OFFSHORE

2.1 OFFSHORE SCHEDULE OF MITIGATION

2.1.1 The tables within this section for Offshore Schedule of Mitigation are grouped by ES Topic. Outline documents in these tables are submitted as part of the VE DCO submission and how these are secured are shown in Table 2.1.

Table 2.1 Volume 6, Part 2, Chapter 2: Marine Geology, Oceanography and Physical Processes

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
29	In the nearshore (out to 1,600 m seaward of Mean High Water Springs (MHWS)), cable remedial protection measures will not include loose rock or gravel. This will limit the blockage of longshore sediment transport and minimise any modification to nearshore waves and tidal currents.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
30	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 11 Part 2 Condition 13
31	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An outline CBRA is provided within Volume 9, Report 9.	Schedule 11 Part 2 Condition 13
32	A Decommissioning Programme will be developed to cover the decommissioning phase as required under Chapter 3 of the Energy Act 2004. As the decommissioning phase will be a similar process to the construction phase but in reverse (i.e., increased project vessels on-site, partially deconstructed structures)	Schedule 2 Requirement 25

MARCH 2024 – DCO APPLICATION		
	the mitigation measure will be similar to those for the construction phase. The Decommissioning Programme will be secured as a condition in the deemed Marine Licence.	
33	The project array areas and offshore ECC will be licensed as disposal sites for the deposition of dredgings and drill arisings. All material that is dredged from the seabed will be disposed of within these sites to ensure material is retained within the local sediment transport system.	Schedule 10 Part 1 Condition 2 Schedule 11 Part 1 Condition 2 Schedule 17
34	Scour protection will be used in areas where the seabed has a significant depth of erodible deposits. This will limit the volume of material that may be eroded and released into the water column	Schedule 1 Part 1

Table 2.2 Volume 6, Part 2, Chapter 3: Marine Water and Sediment Quality

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
35	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 11 Part 2 Condition 13
36	A Project Environment Management Plan (PEMP) (Volume 9, Report 18) is proposed to be produced to ensure that the potential for contaminant release is strictly controlled. The PEMP will include a Marine Pollution Contingency Plan (MPCP) and will also incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details (e.g., Maritime Coastguard Agency and the project site co-ordinator). The PEMP will be secured as a condition in the deemed Marine Licence.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
37	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An outline CBRA is provided within Volume 9, Report 9.	Schedule 11 Part 2 Condition 13
38	A Decommissioning Programme will be developed to cover the decommissioning phase as required under Chapter 3 of the Energy Act 2004. As the decommissioning phase will be a similar process to the construction phase but in reverse (i.e., increased project vessels on-site, partially deconstructed structures) the mitigation measure will be similar to those for the construction phase. The Decommissioning Programme will be secured as a condition in the deemed Marine Licence.	Schedule 2 Requirement 25
39	The Applicant commits to the disposal of sewage and other waste in a manner which complies with all regulatory requirements, including but not limited to the IMO MARPOL requirements	
40	Storage of all chemicals in secure designated areas with impermeable bunding (generally to 110% of the volume); and	

	Double skinning of pipes and tanks containing hazardous materials. The purpose of these measures is to ensure that potential for contaminant release is strictly controlled and provides protection to marine life across all phases of the life of the wind farm.	

Table 2.3 Volume 6, Part 2, Chapter 4: Offshore Ornithology

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
41	A key driver for the identification of the preferred offshore ECC was the location of ornithological designations present along the coastline to the west of the array areas, and avoidance of these, while minimising overlap with the Outer Thames Estuary SPA as far as possible (Volume 4, Annex 4.9: Seabird Distributions Recorded in Aerial Surveys, Figure 2.4.1). Furthermore, with respect to the Outer Thames Estuary Special Protected Area (SPA), the offshore ECC is aligned with deeper water channels which is both less preferred habitat for red-throated divers and also already subject to higher levels of vessel traffic. Therefore, additional disturbance to this species will be kept to a minimum.	Schedule 17
42	Implementation of a best practice protocol for minimising disturbance to the Outer Thames Estuary SPA population of red-throated diver during construction, operation and maintenance works, which is summarised in Volume 9, Report 18.1: Working in Proximity to Wildlife.	Schedule 11 Part 2 Condition 13
43	There will be a minimum blade tip clearance of at least 28 m above MHWS.	Schedule 10 Part 2 Condition 1
44	Development of, and adherence to, a PEMP to reduce direct and indirect disturbance-displacement or pollution impacts in the array areas and around the offshore ECC through compliance with legislation, guidance, training and set protocols (see Volume 9, Report 9.18: Outline Project Environmental Management Plan and Volume 9, Report 18.1: Working in Proximity to Wildlife)	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

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45	Piling operations of foundations (for both WTGs and OSP) will undergo a soft start and ramp-up to help reduce disturbance impacts via MMMPs for UXO clearnace and piling (see Volume 9, Report 14b: Outline MMMP for UXO and Volume 9. Report 14a: Outline MMMP for piling).	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

Table 2.4 Volume 6, Part 2, Chapter 5: Benthic and Intertidal Ecology

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
46	A PEMP (Volume 9, Report 18) is proposed to be produced to ensure that the potential for contaminant release is strictly controlled. The PEMP will include a MPCP and will also incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details (e.g., Environment Agency (EA), Natural England, Maritime Coastguard Agency (MCA) and the project site co-ordinator). The Outline PEMP (Volume 9, Report 18) will be secured as a condition in the deemed Marine Licence(s). Typical measures will include: Storage of all chemicals in secure designated areas with impermeable bunding (generally to 110% of the volume); and Double skinning of pipes and tanks containing hazardous materials.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

MARCH 2024 – DCO APPLICATION		
	The purpose of these measures is to ensure that potential for contaminant release is strictly controlled and provides protection to marine life across all phases of the life of the wind farm.	
47	The Applicant commits to the disposal of sewage and other waste in a manner which complies with all regulatory requirements, including but not limited to the IMO MARPOL requirements.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
48	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 11 Part 2 Condition 13
49	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An outline CBRA is provided within Volume 9, Report 9.	Schedule 11 Part 2 Condition 13
50	A Decommissioning Programme will be developed to cover the decommissioning phase as required under Chapter 3 of the Energy Act 2004. As the decommissioning phase will be a similar process to the construction phase but in reverse (i.e., increased project vessels on-site, partially deconstructed structures) the mitigation measure will be similar to those for the construction phase. The Decommissioning Programme will be secured as a condition in the deemed Marine Licence.	Schedule 2 Requirement 25
51	Where burial depth cannot be achieved, cable armouring will be implemented (e.g. mattressing, rock placement etc). The suitability of installing rock or mattresses for cable protection will be investigated, based on (inter alia) the seabed current data at the location of interest, the assessed risk of impact damage and navigational water depth requirements.	Schedule 11 Part 2 Condition 13
52	As detailed within the Outline M&LS SAC Benthic Mitigation Plan (Volume 9, Report 13) additional mitigation is applied to cable protection within the M&LS SAC, this aims to reduce pressures on the sandbank features within this site. This mitigation plan has been developed in line with Natural England's mitigation hierarchy for designated sites. The mitigation that has been applied includes the following commitments: > Final cable routing will seek to take the shortest route through the M&LS SAC where possible, and considering the required separation to North Falls cables – this routing work will also consider the	Schedule 11 Part 2 Condition 13

MARCH 2024 – DCO APPLICATION		
	potential for successful cable burial with the objective of avoiding the need for cable protection; > Should burial not be achieved at the first attempt the burial hierarchy will followed in line with Section 5 of Volume 9, Report 13; > Rock dumping using loose rock will not be considered a feasible protection in the M&LS SAC; and > Should additional protection be required then mattresses or another form of protection that is equivalent (or less in terms of footprint or impact) and removable at decommissioning, will be used.	
53	Any sediment removed from within the M&LS SAC will be deposited back within the SAC or within the same sediment cell. Following re-settlement of the deposited sediments, they will be immediately available again for transport at the naturally occurring rate and direction, controlled entirely by natural processes. As such, the sediment will have immediately re-joined the natural sedimentary environment within the local area and so by definition is not 'lost from the system' due to the dredging/spoil disposal process.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

Table 2.5 Volume 6, Part 2, Chapter 6: Fish and Shellfish Ecology

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised	
54	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 11 Part 2 Condition 13
55	A PEMP is proposed to be produced to ensure that the potential for contaminant release is strictly controlled. The PEMP will include a MPCP and will also incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details (e.g., Environment Agency (EA), Natural England, Maritime Coastguard Agency (MCA) and the project site co-ordinator). The Outline	Schedule 10 Part 2 Condition 12 Schedule 11

MARCH 2024 – DCO APPLICATION		
	PEMP (Volume 9, Report 18) will be secured as a condition in the deemed Marine Licence(s). Typical measures will include: Storage of all chemicals in secure designated areas with impermeable bunding (generally to 110% of the volume); and Double skinning of pipes and tanks containing hazardous materials. The purpose of these measures is to ensure that potential for contaminant release is strictly controlled and provides protection to marine life across all phases of the life of the wind farm. The Applicant commits to the disposal of sewage and other waste in a manner which complies with all regulatory requirements, including but not limited to the IMO MARPOL requirements.	Part 2 Condition 13
56	A Marine Mammal Mitigation Protocol (MMMP) protocol for pilling and UXO will be developed in accordance with the Outline MMMP (Volume 9, Report 14.1 and 14.2 respectively) and will be implemented during construction. The piling MMMP will include details of soft starts and ramp up procedures to be used during piling operations.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
57	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An outline CBRA is provided within Volume 9, Report 9.	Schedule 11 Part 2 Condition 13
58	No piling within the array areas will be undertaken during the peak Downs herring spawning period. The Applicant considers that that a peak spawning period which has been defined from 6th November until 1st January is appropriate to avoid population impacts on herring. Specific details can be found in Volume 6, Part 5, Annex 6.4: Herring Seasonal Restriction Note.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

Table 2.6 Volume 6, Part 2, Chapter 7: Marine Mammal Ecology

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
59	A Project Environmental Management Plan (PEMP) (Volume 9, Report 18) has been proposed to be produced to ensure that the potential for contaminant release is strictly controlled. The PEMP will include a Marine Pollution Contingency Plan (MPCP) and will also incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details (e.g. NE, Maritime Coastguard Agency and the project site co-ordinator). The PEMP will be secured as a condition in the deemed Marine Licence (dML). Typical measures will include: > Storage of all chemicals in secure designated areas with impermeable bunding (generally to 110% of the volume); > Double skinning of pipes and tanks containing hazardous materials; and > The purpose of these measures is to ensure that potential for contaminant release is strictly controlled and provides protection to marine life across all phases of the life of the wind farm The Applicant commits to the disposal of sewage and other waste in a manner which complies with all regulatory requirements, including but not limited to the IMO MARPOL requirements	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
60	Volume 9, Report 14.1: Outline Marine Mammal Mitigation Protocol - Piling will be implemented as a condition in the dML. The MMMP will be secured as a condition within the dML. The purpose of the MMMP will be to reduce the impact of auditory injury (PTS) to negligible levels. A final MMMP will be produced in the post-consent phase.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
61	A Decommissioning Programme will be developed to cover the decommissioning phase as required under Chapter 3 of the Energy Act 2004. As the decommissioning phase will be a similar process to the construction phase but in reverse (i.e., increased project vessels on-site, partially deconstructed structures) the mitigation measure will be similar to those for the construction phase. The Decommissioning Programme will be secured as a condition in the deemed Marine Licence.	Schedule 2 Requirement 24

MARCH 2024 – DCO APPLICATION		
62	Identification of maximum hammer energy to be used during pile driving (7,000 kJ for monopile, 3,000 kJ for pin pile), secured in the dML. Inclusion of soft-start and ramp-up procedures for pile driving. Maximum of 2 simultaneous (concurrent) piling events (two piling operations occurring at exactly the same time from two separate vessels). Maximum of 4 sequential (consecutive) piling events (four pin piles installed one after another within 24 hours – for jackets only)	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
63	Volume 9, Report 18.1: Working in Proximity to Wildlife will reduce the risk of vessel disturbance and collision risk which will consider the mitigation listed in the Working in Proximity to Wildlife in the Marine Environment Code of Conduct document. The Working in Proximity to Wildlife will be secured as a condition within the dML.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
64	Volume 9, Report 15: Outline SNS SAC SIP to reduce the impact of underwater noise disturbance on the harbour porpoise feature of the Southern North Sea SAC as a condition withing the dML	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

Table 2.7 Volume 6, Part 2, Chapter 8: Commercial Fisheries

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
65	The Applicant is committed to ongoing liaison with fishermen throughout all stages of the project, based upon Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) (2014, 2015) guidance and the following: > Appointment of a company Fisheries Liaison Officer (FLO) to maintain effective communications between the project and fishermen; > Appropriate liaison with relevant fishing interests to ensure that they are fully informed of development planning and any offshore activities and works; > Timely issue of notifications including Notice to Mariners (NtMs), Kingfisher Bulletin notifications and other navigational warnings to the fishing community to provide advance warning of project activities and associated Safety Zones and advisory safety distances; > Prior to any survey, pre-construction, construction or major O&M works, it may be necessary to remove or re-locate static fishing gear (for example pots). Other users of the sea, including commercial fisheries, will be contacted in advance via Notices to Mariners (NtMs), to inform them of upcoming activities to allow time for removal or re-location of static gear to take place, this will be secured in the deemed Marine Licence; and > Development, prior to construction, of a Fisheries Liaison and Co-existence Plan (FLCP), setting out in detail the planned approach to fisheries liaison and means of delivering any other relevant mitigation measures. The plan will be secured in the deemed Marine Licences. An Outline FLCP is presented in Volume 9, Report 16 as part of the Application.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
66	The array construction and decommissioning area will be marked by buoyage as required by Trinity House, this will be secured in the deemed marine licence. The Applicant is committed to marking and lighting the project in accordance with relevant industry guidance and as advised by relevant stakeholders including the Maritime and Coastguard Agency (MCA), Civil Aviation Authority (CAA) and Trinity House, this will be secured in the deemed marine licence.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

MARCH 2024 – DCO APPLICATION		
	The Applicant will also ensure all infrastructure associated with VE (including subsea cables) will be shown on appropriately scaled UKHO admiralty charts.	
67	The Applicant will apply for safety zones post consent. Safety zones of up to 500m will be sought during construction, maintenance and decommissioning phases. Where appropriate, guard vessels will also be used to ensure adherence with Safety Zones or advisory passing distances, as defined by risk assessment, to mitigate any impact which poses a risk to surface navigation during construction, maintenance and decommissioning phases. Such impacts may include partially installed structures or cables, extinguished navigation lights or other unmarked hazards.	Schedule 16
68	Marine coordination will be implemented to manage movement of project vessels. A guard vessel(s) will be deployed where deemed appropriate by risk assessment	Schedule 10 Part 2 Condition 4 Schedule 11 Part 2 Condition 5
69	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
70	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An Outline CBRA is provided within Volume 9, Report 9).	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

Table 2.8 Volume 6, Part 2, Chapter 9: Shipping and Navigation

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
71	All infrastructure associated with VE (including subsea cables) will be shown on appropriately scaled UKHO admiralty charts.	Schedule 10 Part 2 Condition 6 Schedule 11 Part 2 Condition 7
72	VE will be compliant with MGN 654 and its annexes including in relation to reductions of no more than 5% in under keel clearance and the SAR Checklist.	Schedule 10 Part 2 Condition 3 &12 Schedule 11 Part 2 Condition 4 &13
73	Local Notifications to Mariners and Kingfisher Bulletins will be updated and reissued at weekly intervals during construction, operation and maintenance and decommissioning.	Schedule 10 Part 2 Condition 6 Schedule 11 Part 2 Condition 7
74	The array construction and decommissioning area will be marked by buoyage as required by Trinity House.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
75	Marine coordination will be implemented to manage project vessels including in communication with cumulative project marine coordinators as required. The Applicant also commits to use of entry/ exit	Schedule 10 Part 2

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	points and defined routes to and from construction/ decommissioning and O&M ports to mitigate interaction between third-party and project vessels, and this will be conditioned in the deemed Marine Licence	Condition 4 Schedule 11 Part 2 Condition 5
76	A guard vessel(s) will be deployed where deemed appropriate by risk assessment.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
77	There will be a minimum blade tip clearance of at least 28 m above MHWS.	Schedule 10 Part 2 Condition 1
78	Project vessels will comply with international marine regulations as adopted by the Flag State, including International Regulations for Preventing Collisions at Sea (COLREGs) and International Convention for Safety of Life at Sea (SOLAS).	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
79	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
80	A PEMP is proposed to be produced to ensure that the potential for contaminant release is strictly controlled. The PEMP will include a MPCP and will also incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details (e.g. EA, Natural England, MCA and the project site co-ordinator). The PEMP will be secured as a condition in the deemed Marine Licence(s).	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13

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81	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An outline CBRA is provided within Volume 9, Report 9.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
82	An application will be made for safety zones post consent including up to 500 m around ongoing activities during construction and up to 50 m for installed structures pre commissioning.	Schedule 16
83	An application will be made for safety zones post consent including up to 500 m around ongoing activities during major maintenance.	Schedule 16
84	Lights, marks, sounds, signals, and other aids to navigation will be exhibited as required by Trinity House, MCA and CAA.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
85	A Marine Pollution Contingency Plan (MPCP) will be developed outlining procedures to protect personnel working and to safeguard the marine environment in the event of a pollution event	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13
86	A NIP will be developed to manage interactions between project vessels associated with export cable installation/ maintenance/ repair and third-party vessels in navigationally sensitive areas. The outline NIP is provided in Volume Report 20: Outline Navigation and Installation Plan.	Schedule 11 Part 2 Condition 13
87	Monitoring of vessel traffic will be undertaken for the duration of the construction phase.	Schedule 10 Part 2 Condition 17 Schedule 11 Part 2 Condition 18

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88	Monitoring of vessel traffic will be undertaken for three consecutive years following the completion of construction.	Schedule 10 Part 2 Condition 18 Schedule 11 Part 2 Condition 19
89	An application will be made for safety zones prior to decommissioning including up to 500 m around ongoing activities during decommissioning and up to 50 m for installed structures pre decommissioning.	Schedule 16
90	Trinity House have indicated during consultation that additional aids to navigation (such as buoys) may be necessary to mitigate effects during the construction phase; this will be discussed as part of lighting and marking discussions for the final array layout post consent.	Schedule 10 Part 2 Condition 12 Schedule 11 Part 2 Condition 13 Schedule 2 Requirement 3

Table 2.9 Volume 6, Part 2, Chapter 10: Seascape, Landscape and Visual

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
2	The number of WTGs will not exceed 79 at the minimum blade tip height (324m above LAT) and 41 at the maximum blade tip height (399m above LAT). This commitment defines the maximum number of WTGs that could be installed under the DCO.	Schedule 1 Part 1
3	The maximum blade tip height will be 399 m above LAT and the maximum rotor diameter will be 360 m. This commitment defines the maximum height of WTGs that could be installed under the DCO. The maximum height of the WTGs has been reduced from the 424 m blade tip height considered in the PEIR, leading to a reduction in the ZTV and apparent scale of the WTGs.	Schedule 1 Part 1

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4	The spatial extent of the windfarm site was reduced between the Scoping and PEIR, such that the offshore windfarm site now occupies 279.2 km2 compared to the 313.14 km2 at Scoping. The reduced spatial extent ensures that there is a reduction in the apparent lateral spread of WTGs when viewed from the coast, with a section of the northern array removed to help avoid filling in the 'gap' between existing wind farms as seen from the Suffolk coast.	Schedule 1 Part 1
5	The spatial extent of the windfarm site was reduced between the Scoping and PEIR, such that the offshore windfarm site now occupies 279.2 km2 compared to the 313.14 km2 at Scoping. The reduced spatial extent ensures that there is a reduction in the apparent lateral spread of WTGs when viewed from the coast, with a section of the northern array removed to help avoid filling in the 'gap' between existing wind farms as seen from the Suffolk coast.	Schedule 1 Part 1
6	There will be up to two OSPs installed. The exact locations, design and visual appearance will be subject to a structural study and electrical design, which is expected to be completed post consent. The offshore substations will be installed on jacket or monopile foundations.	Schedule 1 Part 1
7	The subsea export cable ducts will be drilled underneath the beach using horizontal directional drilling (HDD) techniques.	Schedule 1 Part 1
8	VE will comply with legal requirements with regards to shipping, navigation and aviation marking and lighting. Marking and lighting of the WTGs and OSPs within the VE array areas will be undertaken in accordance with relevant industry guidance and as advised by relevant stakeholders. This commitment ensures compliance with lighting and marking requirements but also sets the relevant parameters for the SLVIA in relation to night-time effects assessment. Marine navigational lights will be fitted at the platform level on significant peripheral structures, synchronised to display IALA 'special mark' characteristic, flashing yellow, with a range not less than five nautical miles.	Schedule 2 Requirement 3

Table 2.10 Volume 6, Part 2, Chapter 11: Offshore Archaeology and Cultural Heritage

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
9	All intrusive activities undertaken during the life of the project will be routed and microsited to avoid any identified marine heritage receptors pre-construction, with AEZs as detailed in the Outline Marine WSI unless other mitigation is agreed with Historic England and MMO.	Schedule 10 Condition 12 Schedule 11 Condition 13
10	An Outline Marine WSI document has been produced to accompany the ES to outline the AEZs and establish the basis for mitigation measures and further archaeological campaigns for the project. This will be developed to form the Draft Marine WSI followed by the Agreed Marine WSI.	Schedule 10 Condition 12 Schedule 11 Condition 13
11	Additional unknown or unexpected cultural heritage and marine heritage receptors identified during the project stages will be reported utilising the project specific PAD.	Schedule 10 Condition 12 Schedule 11 Condition 13
12	Offshore geophysical surveys (including UXO surveys) and offshore geotechnical campaigns undertaken pre-construction will be subject to full archaeological review, where relevant in consultation with Historic England. Areas with geoarchaeological potential will be targeted during the geotechnical sampling campaigns and results published will aim to enhance the palaeogeographic knowledge and understanding of the area.	Schedule 10 Condition 12 Schedule 11 Condition 13
13	A post-construction monitoring plan as per the Outline Marine WSI (Volume 9, Report 19) will be produced. The post-construction monitoring plan will identify any areas or sites of high archaeological significance recommended for further investigation and outline how post-construction monitoring campaigns will collect, asses and report on changes to marine heritage receptors that may have occurred during the construction phase.	Schedule 10 Condition 12 Schedule 11 Condition 13

Table 2.11 Volume 6, Part 2, Chapter 12: Infrastructure and Other Marine Users

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
14	Horizontal Directional Drill (HDD) technique will be used at the landfall location.	Schedule 1 Part 1
15	Local Notifications to Mariners and Kingfisher Bulletins will be issued, updated and reissued at weekly intervals during construction, operation and maintenance and decommissioning.	Schedule 10 Part 2 Condition 6 Schedule 11 Part 2 Condition 7
17	Development of, and adherence to, a Cable Specification and Installation Plan (CSIP), relating to the offshore ECC, post consent. The CSIP will set out appropriate cable burial depth in accordance with industry good practice, minimising the risk of cable exposure. The CSIP will also ensure that cable crossings are appropriately designed to mitigate environmental effects, these crossings will be agreed with relevant parties in advance of CSIP submission. The CSIP will be conditioned in the deemed Marine Licence. An Outline CSIP has been provided as part of this DCO Application (Volume 9, Report 12).	Schedule 11 Part 2 Condition 13
18	A detailed CBRA to enable informed judgements regarding burial depth to optimise the chance of cables remaining buried whilst seeking to limit the amount of sediment disturbance to that which is necessary. An outline CBRA is provided within Volume 9, Report 9.	Schedule 11 Part 2 Condition 13
19	A Decommissioning Programme will be developed to cover the decommissioning phase as required under Chapter 3 of the Energy Act 2004. As the decommissioning phase will be a similar process to the construction phase but in reverse (i.e., increased project vessels on-site, partially deconstructed structures) the mitigation measure will be similar to those for the construction phase. The Decommissioning Programme will be secured as a condition in the deemed Marine Licence.	Schedule 1 Part 2 Requirement 24
20	The Applicant will apply for safety zones around the foundations and WTGs post consent including up to 500 m around ongoing activities during construction and up to 50 m for installed structures pre commissioning. Where appropriate, guard vessels will also be used to ensure adherence with Safety Zones or advisory passing distances, as defined by risk assessment, to mitigate any impact which poses	Schedule 16

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	a risk to surface navigation. The avoidance areas around the ECC will be agreed with the relevant Shipping and Navigation stakeholders via the Navigation and Installation Plan (Volume 9, Chapter 20).	
21	The Applicant is committed to marking and lighting the project in accordance with relevant industry guidance and as advised by relevant stakeholders including the MCA, Civil Aviation Authority (CAA) and Trinity House. VE OWFL will also ensure the project is adequately marked on nautical charts.	Schedule 1 Part 2 Requirement 3 Schedule 10 Part 2 Condition 7 & 12 Schedule 11 Part 2 Condition 7 & 13
22	The development boundary selection was made following a series of constraints analyses, with the Array Area and offshore ECC selected to ensure the impacts on the environment and I&OMUs are minimised as far as reasonably practical.	Schedule 17
23	VE will be designed and constructed to satisfy the regulations and guidance of the CAA, MCA and Trinity House Lighthouse Service (THLS) in respect of aids to navigation, lighting and marking.	Schedule 1 Part 2 Requirement 3 Schedule 10 Part 2 Condition 7 & 12 Schedule 11 Part 2 Condition 7 & 13
24	Marine coordination will be implemented to manage project vessels including a Navigation and Installation Plan (NIP).	Schedule 10 Part 2 Condition 4 Schedule 11 Part 2 Condition 5
25	Advance warning and accurate location details of construction, maintenance and decommissioning operations, associated Safety Zones and advisory passing distances will be given via Notices to Mariners (NtM) and Kingfisher Bulletins and supplemented with VHF (very high frequency) radio broadcasts agreed	Schedule 10 Part 2 Condition 6 Schedule 11

	with the Maritime & Coastguard Agency (MCA) in accordance with the construction and monitoring programme approved under deemed marine licence condition.	Part 2 Condition 7

Table 2.12 Volume 6, Part 2, Chapter 13: Military and Civil Aviation

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
1	The development boundary selection was made following a series of constraints analyses, with the array area and offshore ECC selected to ensure the impacts on the environment and other marine users are minimised.	
26	An Emergency Response Co-operation Plan (ERCoP) secured by a requirement of the DCO will be in place for the construction, operation and decommissioning phases of VE. The ERCoP is completed initially in discussion between the developer and the MCA, SAR and Navigation Safety Branches. Detailed completion of the plan will then be in cooperation with the Maritime Rescue Coordination Centre (MRCC), responsible for maritime emergency response. The ERCoP must then be submitted to and approved by the Maritime Coastguard Agency (MCA). The ERCoP would detail specific marking and lighting of the wind turbines. The Search and Rescue (SAR) helicopter bases would be supplied with an accurate chart of the VE wind turbine locations, helicopter access positions and spacing between wind turbines. Furthermore, the arrangements of liaison between the wind farm developer and HM Coastguard in the event of an emergency response would be detailed together with an explanation of procedures and processes carried out.	Schedule 11 Part 2 Condition 15
27	The Defence Geographic Centre (DGC) will be informed of the locations, heights and lighting status of the wind turbines, including estimated and actual dates of construction and the maximum height of any construction equipment to be used, prior to the start of construction, to allow inclusion on Aviation Charts. A Notice to Aviators (NOTAM) will be provided ahead of construction activity.	Schedule 10 Part 2 Condition 9 Schedule 11 Part 2 Condition 10
28	The Applicant is committed to marking and lighting the project in accordance with relevant industry guidance and as advised by relevant stakeholders including the MCA, CAA and Trinity House. Marking and lighting of the wind turbines and infrastructure will be in line with current industry standards and regulations; Article 223 of the ANO (2016, as amended 2022), the lighting of wind turbine generators in United Kingdom territorial waters.	Schedule 2 Requirement 3

3 SCHEDULE OF MITIGATION - ONSHORE

3.1 ONSHORE SCHEDULE OF MITIGATION

3.1.1 The tables within this section for Onshore Schedule of Mitigation are grouped by ES Topic. Outline documents in these tables are submitted as part of the VE DCO submission and how these are secured are shown in Table 3.1- Table 3.12

Table 3.1 Volume 6, Part 3, Chapter 2: Landscape and Visual Assessment

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ID	**Mitigation Measure Commitment**	**Secured by?**
92	Volume 9, Report 22: OLEMP forms part of this DCO application. These documents will detail the replacement of failed specimens within the first five years . It will also detail all the specifications listed to ensure successful plant establishment and in particular taking into account the hotter and drier climate that is evolving in the south-east of England owing to climate change.	Schedule 2 Requirement 12
93	The proposed woodland mostly comprises indigenous woodland species and will be located around the OnSS. The mitigation woodland planting will be designed to comprise a mix of faster growing 'nurse' species and slower growing 'core' species. Essex County Council have set out guidance on the appropriate selection of tree species in their 'Essex Tree Palette: A guide to choosing the most appropriate tree species for Essex sites according to landscape character and soil type' (January 2018). 'London Clay' is the relevant category in respect of the Substation Zone. Recommended tree species include field maple, hazel, hornbeam, hawthorn, wild cherry, blackthorn and common oak. Species will also be selected in light of their ability to tolerate periods of drought and flooding associated with the effects of climate change.	Schedule 2 Requirement 7 Requirement 12
94	In locations where it is possible to undertake planting that will not interfere with construction works and where practical to do so, mitigation woodland could be planted during the early phases of the OnSS construction to ensure robust screening as quickly as possible. This woodland planting, if implemented at the start of the construction phase will give the woodland in these areas additional growth prior to completion of construction and commencement of operation of the OnSS	Schedule 2 Requirement 7 Requirement 12
95	Earthworks used to create the OnSS platform will result in surplus soil and excavation material and this will be used in the creation of low bunding and sensitive reprofiling within those parts of the site area where woodland or grassland planting is proposed. The combination of raised ground levels and woodland planting will contribute to the screening of the OnSS and provide further landscape and visual mitigation.	Schedule 2 Requirement 12 Requirement 13

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96	The routing of the onshore ECC has been based on the following criteria and will be refined to ensure these criteria are taken into account: > Achievement of the best environmental fit of the onshore ECC where practicable, particularly in relation to maintaining separation from settlement and rural properties; > Locating trenchless techniques to reduce the loss of hedgerows, trees and woodland along the cable route; > Reinstatement of removed sections of hedgerows, or suitable replacement hedgerows provided for displaced or severed sections of hedgerows where practical; > Sensitive siting of TCCs and Trenchless drilling compounds such that the locations have been carefully selected taking into account landscape and visual receptors to reduce impacts during the construction period where practicable; > Restoration of all temporary works and construction areas in relation to re-establishment of ground cover; > Protection of all retained trees during the construction phase where practicable; and > Footpaths or cycleways that are temporarily disrupted by the proposed onshore ECC or landfall will be temporarily diverted and then reinstated as part of the mitigation strategy.	Schedule 2 Requirement 9 Requirement 12
97	Achievement of the best environmental fit of the onshore ECC where practicable, particularly in relation to maintaining separation from settlement and rural properties	Schedule 2 Requirement 9
98	Reinstatement of removed sections of hedgerows, or suitable replacement hedgerows provided for displaced or severed sections of hedgerows where practical;	Part 6 Condition 36
99	Sensitive siting of TCCs and Trenchless drilling compounds such that the locations have been carefully selected taking into account landscape and visual receptors to reduce impacts during the construction period where practicable	Schedule 2 Requirement 8 Requirement 9
100	Restoration of all temporary works and construction areas in relation to re-establishment of ground cover;	Schedule 2 Requirement 8 Requirement 16
101	Protection of all retained trees during the construction phase where practicable; and	Schedule 2 Requirement 7 Requirement 12
102	Footpaths, bridleways or cycleways that are temporarily disrupted by the proposed onshore ECC will be temporarily diverted and then reinstated as part of the mitigation strategy	Schedule 2 Requirement 9

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103	Following the installation of the onshore cables, disturbed landcover and habitats will be reinstated. The overall aim of the reinstatement will be the re-establishment of existing ground cover or returning the disturbed ground to its original agricultural use	Schedule 2 Requirement 7 Requirement 12

Table 3.2 Volume 6, Part 3, Chapter 3: Socio-Economic, Tourism and Recreation

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
104	The construction of VE will interact with a number of routes are all formally designated as Public Rights of Way (PRoW) within the onshore Export Cable Corridor (ECC). The majority of the PRoW within the Onshore ECC interact with the construction of VE on a temporary basis and will require temporary control measures to be put in place including temporary diversions, crossings, signage and other management set out within the Outline Public Access Management Plan. Any diversions for PRoW will be within the Onshore ECC and may be up to approximately 200m in length in one or either direction of the original PRoW, depending on the site and physical constraints.	Schedule 2 Requirement 9
105	The Final PAMP(s) will be approved by Essex County Council prior to commencement of each relevant stage and will include a plan(s) showing the confirmed control measures for each PRoW and also identify the specific length of the PRoW that is affected.	Schedule 2 Requirement 9
106	The careful siting of the onshore ECC, combined with the location of almost all open-cut trenching in arable farmland and the extensive use of trenchless crossing technique at 40 locations has greatly reduced the potential for significant effects on visual receptors to arise along the length of the onshore ECC.	Schedule 2 Requirement 8 Requirement 10
107	It is noted that any temporary road closure would be for a maximum of seven days and should more than one temporary road closure be required during the construction of VE, these would not be simultaneous unless agreed with Essex County Council in advance or via approval of the final CTMP.	Schedule 2 Requirement 9
108	Mitigation would take the form of mitigation identified by any environmental assessment (e.g. noise, air quality) reported within this ES, and in the form of best practice measures akin to the Code of Construction Practice relevant for the decommissioning phase.	Schedule 2 Requirement 25

Table 3.3 Volume 6, Part 3, Chapter 4: Onshore Biodiversity and Nature Conservation

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
109	Careful routing of the onshore ECC and design of key crossing points (sea defence structures, main rivers, non-main and ordinary watercourses, roads) to avoid key areas of sensitivity, such as all statutory designates sites (including Holland Haven Marshes SSSI), Tendring Brook, important hedgerows, ponds, woodlands and lowland meadow wherever possible (see Volume 6, Part 1, Chapter 4: Site Selection and Alternatives for further details on alternatives and site selection).	Schedule 2 Requirement 8
110	An EPSL from NE will be required for temporary works affecting terrestrial habitat used by GCN along the route. The project proposes to enter the District Level Licensing (DLL) scheme, based on current survey data and available scheme details. The DLL differs from the traditional EPSL route in that any impacts to GCN are offset at a district or county-level rather than site-level and uses a conservation fee from developers that is used to create and maintain new ponds and habitat in locations that will benefit the species for the foreseeable future. This approach has been discussed and agreed with NE as part of the evidence plan process; it is anticipated that NE will issue an Impact Assessment and Conservation Payment Certificate (IACPC) for countersigning based upon the MDS used to inform this assessment, which will be included at Volume 6, Part 6 Annex 4.20: Five Estuaries Offshore Wind Farm: GCN District Level Licencing Impact Assessment and Conservation Payment Certificate (unsigned) and associated documents. The IACPC is considered equivalent to a "Letter of No Impediment" LONI, i.e., confirmation that NE agrees to the DLL approach described, subject to the payment stated and conditions of the licence. The final approach to GCN EPSL would be revisited post-consent, and would be informed by pre-commencement survey data and final scheme design.	Schedule 2 Requirement 14
111	The measures which are pertinent include use of HDD beneath all woodlands (rather than trenching through the woodland), and retention of trees and hedgerows wherever practicable. One hedge (reference 5EHE_38) with dormouse presence confirmed (one old nest on one occasion, at the southern end of the hedgerow) may be affected on the ECC. The option of trenchless crossing and an off-route haul road has been retained at this location, such that if dormouse are present in future impacts to the species can be avoided, and there would be no requirement for an EPSL. Two 10m wide hedgerow breaches to enable haul route access from the B1035 Thorpe Road to the onshore ECC are proposed. Current field survey data does not include records for dormouse in the hedges, but the species is present directly adjacent and so its potential future presence cannot be ruled out. The requirement for an EPSL will be re-assessed based upon pre-commencement/pre-construction survey results and final scheme design. In the event an EPSL is required, the EPSL application would be submitted to NE in advance of work. The	Schedule 2 Requirement 14

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	conditions of the EPSL would be specified to ensure that construction and temporary presence of the haul road does not result in significant adverse impacts to the local population. This would include: > creation of temporary compensation/ mitigation habitats for use by dormice in immediately adjacent areas. This would include installation of dormouse boxes and cessation of field-side hedgerow management for the construction plus hedgerow re-establishment period (roadside hedgerow management practice to remain as currently, for road safety purposes). > Scheduling of certain work to avoid sensitive periods of the dormouse life cycle; standard practice would be followed i.e., a two stage removal. Top growth of the hedgerow would be removed in the winter months (November – February) when dormouse are hibernating, avoiding ground disturbance. Clearance of stumps, roots and other vegetation would be undertaken from May – September thereafter.	
112	The measures which are pertinent include use of HDD beneath all woodlands (rather than trenching through the woodland), and retention of trees and hedgerows wherever practicable. Reduction in corridor width at hedgerow crossings. The over-riding principle is for no net loss of potential roost resource as a result of the scheme. The construction phase may result in the loss of a number of mature trees, including some which have moderate or high potential to support bats. None have been found to support roosting bats to date, but since tree roosting bats utilise a range of locations over any given season, an EPSL may later prove necessary pending the findings of pre-commencement surveys. In the event an EPSL is needed, it would be sought to cover work at all trees with potential roost features (PRF) (i.e., the total roost resource) that may be affected by the project. All work undertaken under the EPSL and which could result in disturbance of bats would be overseen by the Named Ecologist, or his/ her Accredited Agent (such as a suitably skilled and experienced Ecological Clerk of Works (ECOW) (see below). If required, the EPSL application would be submitted to NE once final design details are available and pre-commencement surveys for bats have been completed. Key principles that would be followed to mitigate and compensate for impacts are described in the OLEMP at Volume 9, Annex 9.22: Outline Landscape and Ecological Management Plan.	Schedule 2 Requirement 14
113	The measures which are pertinent include use of HDD beneath all watercourses identified during the ecological surveys (noting that open trench may be used at one small watercourse identified in the OS data used for the hydrological assessment in Volume 6 Part 3 Chapter 6 Hydrology and Flood Risk, but was not present during ecological field surveys and therefore not counted as such in the habitat survey). The over-riding principle is no net loss of water vole habitat as a result of the scheme. The construction phase affects two water courses which support water vole; a 10m wide haul road is proposed to cross the Tendring Brook (utilising an existing access that may require upgrading) and the Holland Brook north of Horsley Cross. Based on current survey data a licence is not considered necessary, to enable this work to proceed	Schedule 2 Requirement 14

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	However, this will be re-assessed based upon pre-commencement/pre-construction survey results and final scheme design.. In the event a licence is required, the licence application would be submitted to NE in advance of work affecting water vole habitat. The conditions of the licence would be specified to ensure that construction and temporary presence of the haul road does not result in significant adverse impacts to the local population. These would include: > Micro-siting to avoid water vole burrows (if present); > Scheduling of work to avoid sensitive periods of the water vole life cycle. > Removing vegetation back to bare earth in spring and autumn; > Carrying out a destructive search of water vole burrows, after an appropriate monitoring period, after removing vegetation; > Creation of temporary compensation/ mitigation habitats for use by water vole in immediately adjacent areas (such as provision of nest boxes or feeding stations, sympathetic management of bankside habitats) for the construction plus vegetation re-establishment period. > Reinstatement of bankside habitats immediately after work, to include sowing with species -rich locally appropriate sward and fencing, if applicable, to prevent stock access.	
114	All construction work will be undertaken in accordance with a CoCP (Volume 9, Annex 9.21 Code of Construction Practice) and OLEMP (Volume 9, Annex 9.22: Outline Landscape and Ecological Management Plan). Measures that are included in both are as follows: > Pre-commencement surveys for hog's fennel, S41 and/ or red data book plant species associated with coastal habitats and arable margins, and other protected species whose distribution could have changed since the baseline surveys will be undertaken to update the baseline and determine potential impacts at the time of construction. Micro-siting of project elements will be used to avoid important ecological features, where possible. > The construction corridor width at hedgerow crossing points will be reduced to the minimum possible (for the purpose of EIA this is considered to be 30m). > Protective fencing will be installed around retained habitats of importance and retained trees including root protection zones located directly adjacent to working areas. > Construction lighting at HDD locations would be at the lowest, safest permissible level and with light spill minimised via use of cowls and compliance with the relevant guidance (BCT, 2023). This will result in no significant increase in illumination levels above current levels outside of the working area. > An Ecological Clerk of Works (ECOW) will be employed to oversee construction work, provide toolbox talks to contractors and minimise risks to important ecological features. > All habitats will be reinstated as soon as possible after construction. Hedgerows along the onshore ECC	Schedule 2 Requirement 8

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	will be reinstated using a species-rich, locally appropriate native mixture including heavy standard trees at a 3:1 ratio for any lost. Standard trees will not be planted above cables. > Removal of potential nesting bird habitat will take place outside of the breeding season (March – August inclusive), where possible, to avoid damage to, or destruction of active nests. Where this is not possible, a check for the presence of nesting birds by the ECOW will take place in advance of work. Where active nests are located the relevant areas of vegetation would be retained until such time as young fledge or the relevant nesting attempt has ended. > Surveys for Schedule 1 bird species and other breeding species of conservation concern which are likely to be particularly sensitive to disturbance, e.g., breeding waders, will take place prior to and during construction (as required). Avoidance of disturbance to these species whilst nesting will be achieved through the implementation of disturbance-free buffer zones around active nests. The extent of any buffer zones will be species and location-specific and will be determined by the ECOW, taking into consideration relevant guidance and experience from other sites, as appropriate. The ECOW will also monitor nesting attempts to check that the agreed buffer zones are successful. > Checks for the presence of GCN, bats, otter, water vole, dormice, badger setts, reptiles, hedgehogs, harvest mice, hares or other protected or notable species will be carried out by the ECOW prior to vegetation clearance. Additional reasonable avoidance measures for GCN, bats, dormice, badger, water vole, otter and reptiles will be implemented/ mitigation licences applied for as necessary (details are included in the OLEMP at Volume 9, Annex 9.22: Outline Landscape and Ecological Management Plan).	
115	The OLEMP (Volume 9, Report 9.22: Outline Landscape and Ecological Management Plan) and draft CoCP (ES Volume 9, 9.21: Draft Code of Construction Practice) include measures to reduce disturbance to important populations of non-breeding birds at the landfall including: > Piling at the landfall (if required) would either take place outside the winter period (October to March) or would utilize less noisy, vibro-piling or push piling technology. > Fencing/ hoarding would be used during the winter months to provide visual and acoustic screening of the landfall compound. Where practical, similar measures would also be employed in other areas where disturbance to significant numbers of non-breeding waterbirds is likely. Full details of proposed fencing would be provided in the final LEMP, post consent but prior to construction commencing, once detailed construction designs and programmes are available. > If necessary, works at the landfall would be suspended during periods of very cold weather. Disturbance to non-breeding waterbirds is likely to be most critical during periods of prolonged cold weather, when they may be unable to feed in their usual foraging areas and may face reduced prospects for survival. A scheme has been in place since 1983 to minimise the level of disturbance from wildfowl shooting in frozen conditions (JNCC, 2019).	Schedule 2 Requirement 8

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	Similar measures would be imposed here, with the works suspended after seven consecutive days on which the ground was frozen (as measured at a nearby weather station). Any suspension of works would last for a minimum of seven days thereafter and any lifting of the suspension will take into consideration the need for a period of recovery for waterbirds after the end of the severe weather itself. Any cold weather suspension of works, if required, would only apply at the landfall as non-breeding waterbirds are likely to move to the coast during such conditions (as the inland fields would be frozen).	
116	The OLEMP (Volume 9, Report 9.22: Outline Landscape and Ecological Management Plan) and draft CoCP (ES Volume 9, 9.21: Draft Code of Construction Practice) include measures to reduce disturbance to important populations of non-breeding birds along the onshore ECC and at the OnSS, including: Where practical, in areas where disturbance to significant numbers of non-breeding waterbirds is likely, measures such as fencing/ hoarding would be used during the winter months to provide visual and acoustic screening of active working areas. The requirement for such measures would be determined by the ECOW, considering the nature and timing of the works and relevant bird data, including previous survey data and observations made during the construction period. Based on current survey data such measures are most likely to be required in Route Section 3, where the route passes closest to Hamford Water, and may include screening of waterbodies used by relatively large numbers of waterbirds, in places where screening isn't provided by existing vegetation or topography. Measures such as fencing/ hoarding would also be used at the five HDD locations in which 24-hour working is assumed to be required (TX21 – railway line, TX-23 Swan Road, TX-24 B1035, TX-26 Tendring Brook and TX-31 A120), where these lie adjacent to potentially suitable habitat for lapwing and golden plover, to reduce possible disturbance effects on nocturnal activity by these species. Full details of proposed fencing would be provided in the final LEMP, post consent but prior to construction commencing, once detailed construction designs and programmes are available.	Schedule 2 Requirement 8
117	Construction mitigation measures and additional mitigation and compensation measures, beyond those covered in the outline CoCP (Volume 9, 9.21: Draft Code of Construction Practise), including woodland planting, pond creation and hedgerow planting at the OnSS, are identified within the OLEMP in Volume 9, Annex 9.22: Outline Landscape and Ecological Management Plan. The OLEMP also includes details of proposed biodiversity enhancements. The OLEMP sets out the key landscape and ecology elements that will be secured in the final LEMP which The Applicant will be required to submit to the relevant planning authority for approval as a requirement of the DCO.	Schedule 2 Requirement 12
118	All construction work will be undertaken in accordance with the INNS control measures set out in the draft CoCP (Volume 9, 9.21: Draft Code of Construction Practice).	Schedule 2 Requirement 8

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119	Construction practices will incorporate measures to prevent pollution. The draft CoCP (Volume 9, 9.21 Draft Code of Construction Practice) sets out pollution control principles, which would be implemented by the project during construction.	Schedule 2 Requirement 8
120	All construction work will be undertaken in accordance with the draft CoCP (Volume 9, 9.21: Draft Code of Construction Practice) and relevant good practice guidance, where applicable, including, but not limited to: > Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C532) (CIRIA 2001); > CIRIA – SuDS Manual (C753) (CIRIA, 2015b), including: > No discharge to main river watercourses will occur without permission from the EA (SuDS Manual); > Wheel washers and dust suppression measures to be used as appropriate to prevent the migration of pollutants (SuDS Manual); and > Regular cleaning of roads of any construction waste and dirt to be carried out (SuDS Manual).	Schedule 2 Requirement 8
121	Operational practices will incorporate measures to prevent pollution and increased flood risk, including emergency spill response procedures, clean up and control of any potentially contaminated surface water runoff. These measures will be included within the LEMP. The LEMP would also include specific measures to avoid potential impacts to protected or notable species or sensitive habitats during planned operational or maintenance work. Where unplanned operational or maintenance works are required, appropriate mitigation measures would be developed and agreed with relevant consultees prior to works taking place.	Schedule 2 Requirement 12
122	Decommissioning practices will incorporate measures similar to the construction phase, to prevent impact to ecological receptors. Provision of an onshore decommissioning plan, including a revised CoCP, in advance of decommissioning works will be a requirement of the DCO, to include protection of ecological features, based on up-to-date survey information and relevant guidance in place at the time of decommissioning.	Schedule 2 Requirement 25

Table 3.4 Volume 6, Part 3, Chapter 5: Ground Conditions and Land Use

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ID	**Mitigation Measure Commitment**	**Secured by?**
123	"The CoCP incorporates measures to prevent pollution. Areas at risk of spillage, such as vehicle maintenance areas and hazardous substance stores (including fuel, oils, drilling fluids and chemicals) will be bunded and carefully sited to minimise the risk of hazardous substances entering drainage systems or local watercourses.	Schedule 2 Requirement 8
124	All construction work will be undertaken in accordance with the CoCP (Volume 9, Document 9.21: Code of Construction Practice) and relevant good practice guidance, where applicable, including, but not limited to: Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C532) (CIRIA 2001); CIRIA – SuDS Manual (C753) (CIRIA, 2015b): No discharge to main river watercourses will occur without permission from EA (SuDS Manual); Wheel washers and dust suppression measures to be used as appropriate to prevent the migration of pollutants (SuDS Manual); and Regular cleaning of roads of any construction waste and dirt to be carried out (SuDS Manual).	Schedule 2 Requirement 8 Requirement 15
127	The CoCP incorporates the outline principles of soil management and mitigation measures to ensure protection of soils. A Soil Management Plan (SMP) will be developed and will be produced in advance of construction. The SMP will provide further details of mitigation measures and best practice handling techniques during stripping, handling and reinstatement to safeguard soil resources by ensuring their protection, conservation and appropriate reinstatement following the construction of the onshore works.	Schedule 2 Requirement 13
128	Where required, crossing points will be used so that livestock and vehicles can cross the working width. General disruption impacts will be mitigated by keeping landowners updated with project progress.	Schedule 7 Restrictive Covenants
129	The Project will seek to liaise with landowners to agree terms with affected parties including any loss of ongoing payments or penalties relating to agri-environmental stewardship schemes.	Schedule 7 Restrictive Covenants

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130	Any permanent restriction of non-standard agricultural activities will be discussed with affected landowners to minimise impacts.	Schedule 7 Restrictive Covenants
131	In order to mitigate the potential impacts associated with excavation of potentially contaminative material: The CoCP (Volume 9, Report 21: CoCP) identifies the procedures to be followed should an area of contamination be encountered. Where necessary works on site at that location will cease until any identified contamination has been assessed by a suitably qualified Environmental Consultant in accordance with The Contaminated Land (England) Regulations 2006; Areas where these materials are found will be photographed and annotated on a site drawing.; Construction workers will follow good site practice and hygiene rules; Personal protective equipment (PPE), including nitrile gloves, protective overalls, safety goggles and face mask will be worn where appropriate, especially by those workers who are likely to be coming into contact with contaminated soil or water, such as those carrying out hand digging activities; All works will be carried out in accordance with BS5930: 2015 +A1:2020 (The Code of Practice for Site Investigations) and BS10175:2011+A2:2017 (Investigation of Potentially Contaminated Sites) Use of the waste hierarchy to determine the most sustainable option for all surplus soils that are generated on site; Re-instatement of topsoil; Inclusion of excavated subsoil that is suitable for use within the design as landscaping material at the OnSS to minimise offsite movements; Segregation of waste subsoil for offsite management from subsoil suitable for reinstatement on site; Identification of suitable local schemes that are suitable for offsite reuse or recycling of surplus subsoil;	Schedule 2 Requirement 13

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	Any wastes found to be hazardous, will be stockpiled or stored separately from any non- hazardous stockpiles. Appropriate action will be taken in accordance with The Waste Enforcement (England and Wales) Regulations 2018, the Environmental Protection Act (1990) and the Environment Act (1995)	
132	An Operational UXO Emergency Response Plan should be held within the site management documentation; and Safety and awareness briefings are provided to construction workers.	Schedule 2 Requirement 8
133	The OnSS would contain potential pollutants which could include cooling oils, lubricants, fuels, greases, etc. The design, maintenance and operation of the facility would follow good practice in line with the prevailing future guidance and legislation with regard to measures such as the storage and management of potentially polluting substances, emergency spill response procedures, clean up and control of any potentially contaminated surface water runoff and routine inspection to prevent or contain leaks of any pollutants. Where required good practice will be undertaken to excavate and replace without impacting soil quality significantly during any cable replacement.	Schedule 2 Requirement 8
134	Decommissioning practices would incorporate measures like the construction phase, to prevent pollution. These measures should include emergency spill response procedures, control of surface water and clean up and remediation of any contaminated soils. Exposed cables ducts will be sealed with an appropriate water proofing material to mitigate flood risk or creation of preferential flow pathways	Schedule 2 Requirement 8

Table 3.5 Volume 6, Part 3, Chapter 6: Hydrology, Hydrogeology and Flood Risk

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ID	**Mitigation Measure Commitment**	**Secured by?**

MARCH 2024 – DCO APPLICATION		
135	All construction work will be undertaken in accordance with the CoCP, which will be secured as part of the DCO. The CoCP will be drafted having consideration of good practice guidance including, but not limited to: > Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C532) (CIRIA 2001); and > CIRIA – SuDS Manual (C753) (CIRIA, 2015b).	Schedule 2 Requirement 15
136	The design of the OnSS may result in the construction of low permeability surfacing, increasing the rate of surface water runoff from the site. A surface water drainage scheme is required to ensure the existing runoff rates to the surrounding water environment are maintained at pre-development rates. An outline surface water drainage scheme is provided as part of the OnSS FRA.	Schedule 2 Requirement 9
137	The detailed (post-consent) design of the surface water drainage scheme would be based on a series of infiltration/soakaway tests carried out on site and the required attenuation volumes will be outlined in the supporting OnSS FRA. The tests will be undertaken prior to construction and in accordance with the BRE Digest 365 Guidelines in order to determine the suitability of ground for accepting a drainage discharge.	Schedule 2 Requirement 9
138	Construction of the onshore OnSS will require temporary management of surface water during construction. Control measures will be included within the CoCP to minimise the risk of water pollution.	Schedule 2 Requirement 9
139	Construction of the onshore ECC will require temporary management of surface water along the route. Control measures will be included within the CoCP to minimise the risk of water pollution.	Schedule 2 Requirement 9
140	Cable trenching, construction haul roads and construction site accesses which cross surface watercourses will require measures to ensure that the water quality and flow rates are unaffected either directly or indirectly. These measures will be secured as part of the CoCP.	Schedule 2 Requirement 9
141	The onshore ECC and the construction haul roads will be designed to minimise land take and to avoid, where possible, impacts on existing drainage networks and features.	Schedule 2 Requirement 9
142	The CoCP requires that flood response awareness and procedures will be included in the principal contractor's emergency response planning where there are works near to or within a flood zone or area of residual risk existing from coastal flood defence failure. This plan would include a procedure for evacuation of personnel and the securing or relocating sensitive equipment and/ or materials stored in bulk.	Schedule 2 Requirement 9
143	The onshore TCC and construction access and haul roads would comprise, where practical, permeable gravel overlying a permeable geotextile membrane of an appropriate standard.	Schedule 2 Requirement 9
144	Where required and practical, drainage would be installed either side of the onshore ECC to ensure existing land drainage flow regimes are maintained.	Schedule 2 Requirement 9
145	Surface water flowing into the trenches and work areas during the construction period will be pumped via settling tanks or ponds to remove sediment and potential contaminants, before being discharged into local ditches or	Schedule 2 Requirement 9

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	drains via temporary interceptor drains. Where topographic or hydraulic gradients on site are significant, cable trenches will include a hydraulic break (bentonite or natural clay seals) to reduce flow rates along trenches and hence reduce local erosion.	
146	Any field drainage intercepted during the cable installation will either be reinstated following the installation of the cable or diverted to a secondary channel through agreement with the appropriate stakeholders.	Schedule 2 Requirement 9
147	Any stockpiles along the cable route will have gaps to allow surface water runoff to pass through.	Schedule 2 Requirement 9
148	Areas at risk of spillage, such as vehicle maintenance areas and hazardous substance stores (including fuel, oils and chemicals) will be bunded and carefully sited to minimise the risk of hazardous substances entering drainage systems or local watercourses. Additionally, the bunded areas will have impermeable bases to limit the potential for migration of contaminants into groundwater following any leakage/spillage. Bunds used to store fuel, oil etc. will have a 110% capacity.	Schedule 2 Requirement 9
149	Any refuelling of machinery or washout of concrete transportation vehicles will be undertaken within designated areas, located a minimum of 10 m from surface water features, where spillages can be easily contained.	Schedule 2 Requirement 9
150	Machinery will be routinely checked to ensure it is in good working condition to reduce the risk of leaks.	Schedule 2 Requirement 9
151	Any tanks and associated pipe work containing oils and fuels will be double skinned and be provided with intermediate leak detection equipment.	Schedule 2 Requirement 9
152	A spill procedure will be documented, and spill kits kept in the vicinity of potentially hazardous materials storage areas.	Schedule 2 Requirement 9
153	Disturbance to areas close to watercourses will be reduced to the minimum necessary for the work.	Schedule 2 Requirement 9
154	Excavated material will be placed in such a way as to avoid any disturbance of areas close to the banks of watercourses and to prevent spillage into water features. Stockpiles will be located a minimum of 10 m from surface water features where practicable.	Schedule 2 Requirement 9
155	Use of sediment fences along watercourses when working in close proximity, to prevent sediment being washed into watercourses.	Schedule 2 Requirement 9
156	Covers will be used by lorries transporting materials to/ from site to prevent releases of dust/ sediment to watercourses or drains.	Schedule 2 Requirement 9
157	If applicable, storage of stockpiled materials should be covered when not in use to prevent materials being dispersed by wind or rainfall runoff.	Schedule 2 Requirement 9

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158	Any visual/ olfactory signs of contamination encountered during excavation should be reported and investigated.	Schedule 2 Requirement 9
159	A briefing will be included within the site induction highlighting the importance of water quality, the location of watercourses and pollution prevention measures.	Schedule 2 Requirement 9
160	Drainage works to be constructed to relevant statutory guidance.	Schedule 2 Requirement 9
161	Where required good practice will be undertaken to excavate and replace without impacting soil quality significantly during any cable replacement.	Schedule 2 Requirement 9
162	Decommissioning practices will incorporate measures similar to the construction phase, to prevent pollution and increased flood risk. These measures will include emergency spill response procedures, control of surface water and clean up and remediation of any contaminated soils. Exposed cables ducts will be sealed with an appropriate waterproofing material to mitigate flood risk or creation of preferential flow pathways.	Schedule 2 Requirement 25
163	Decommissioning will be undertaken in accordance with relevant guidelines at the time of decommissioning and will include measures to protect the water environment.	Schedule 2 Requirement 25

Table 3.6 Volume 6, Part 3, Chapter 7: Onshore Archaeology and Cultural Heritage

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
164	Where practicable archaeological remains of high heritage significance will be avoided and preserved in situ. A wider corridor has been included which allows for micrositing and the option for trenchless techniques. This would be considered if archaeology of high significance is encountered. Preservation in situ is the conservation of an archaeological asset in its original location and is the preferred method of conservation of assets of high or very high heritage significance in accordance with best practice.	Schedule 2 Requirement 11
165	An agreed programme of archaeological investigation work will be put into place to ensure that any heritage assets or deposits of geoarchaeological/ palaeoenvironmental interest that may be present could be identified and recorded. This is secured as a requirement in the DCO. This would need to be in accordance with an Outline Written Scheme of Investigation (Volume 9, Report 23: Outline WSI) has been prepared in consultation with the Development Control Archaeologist advising Essex County Council	Schedule 2 Requirement 11

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166	Archaeological investigation and recording would provide a partial mitigation of the loss of archaeological interest and would be less preferable to conservation of a heritage asset in situ (DESNZ 2023).	Schedule 2 Requirement 11
167	Archaeological investigation and recording are therefore a partial mitigation that would reduce the magnitude of adverse change to a degree dependent on the interests that comprise the heritage significance of an individual heritage asset.	Schedule 2 Requirement 11
168	Reinstatement of ECC works, including landscaping such as hedgerow.	Schedule 2 Requirement 12
169	Retention and restoration of existing screening planting where practicable and the implementation of new/additional planting and/or landscaping. This would be part of a scheme of landscape mitigation secured in a requirement of the DCO Details of landscape mitigation are set out in Volume 3, Chapter 2 Landscape and Visual Impact Assessment and the Outline Landscape and Ecological Management Plan (Volume 9, Report 22: Outline Landscape and Ecological Management Plan) of this ES.	Schedule 2 Requirement 12

Table 3.7 Volume 6, Part 3, Chapter 8: Traffic and Transport

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
170	The strategy for access has selected routes that where possible, seek to reduce the impact of traffic upon local communities. It has minimised the use of minor roads, with the project using haul roads along the corridor to gain access to the works from a limited number of construction access points.	Schedule 2 Requirement 10
171	Volume 9, Report 26: Outline CTMP sets out the key principles and types of measures to be implemented during construction of VE.	Schedule 2 Requirement 9
172	Volume 9, Report 26: Outline WTP is provided and includes a range of demand management measures including a target car share ratio. The Outline WTP also provides details of how compliance with targets will be measured, monitored and reported upon.	Schedule 2 Requirement 9

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173	Volume 9, Report 25: Outline PAMP sets out the anticipated mechanisms for managing the use of PRoW.	Schedule 2 Requirement 9
174	Maximising the length of temporary haul roads at construction sites, to remove as much HGV traffic from the local highway network as possible.	Schedule 2 Requirement 9
175	Temporary speed limit reduction on Bentley Road from national speed limit (60mph) to 40mph.	Schedule 2 Requirement 9
176	Decommissioning works would be undertaken in accordance with best practice measures at the relevant time.	Schedule 2 Requirement 25
177	Sections of Bentley Road, including the junction with the A120 requires widened to facilitate HGV access – see Section 7.0 and Appendix AA of Volume 6, Part 3, Annex 8.1: Transport Assessment. The proposals may also include a segregated WCH path, and the proposed Order Limits include land to enable these, should they be deemed to be required.	Schedule 2 Requirement 10

Table 3.8 Volume 6, Part 3, Chapter 9: Airbourne Noise and Vibration

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
178	If a temporary speed limit of 40 mph is applied on Bentley Road during construction works, as discussed in Paragraph 9.10.84, the change in BNL reduces to 4.8 dB. The magnitude of this impact will have reduced to medium, which upon medium sensitivity receptors would be of moderate significant effect. Therefore, further mitigation would be necessary to reduce the magnitude of impact on Bentley Road. As calculations assume a worst case, the impacts may not be as high as those reported. It is therefore recommended that noise from road traffic using Bentley Road is monitored in accordance with CRTN, prior to, and during construction to monitor any increases. If an increase of 3 dB or greater is detected further mitigation will be required to control road traffic noise. This could include the use of temporary speed limits below 40 mph, re-routing of construction vehicles, particularly HGVs, sound insultation works to those properties affected, or other similar measures. With the noise levels monitored and appropriate mitigation in place a low residual magnitude of impact would be present.	Schedule 2 Requirement 9

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179	A number of mitigation options are available that can be applied as appropriate. These include, but are not limited to, one or a combination of the following: electrical components with reduced sound power levels, enclosures or localised screening around selected noisy components, a noise barrier around some or all of the OnSS and using buildings and other structures within the OnSS to form a noise barrier	Schedule 2 Requirement 17

Table 3.9 Volume 6, Part 3, Chapter 10: Air Quality

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
91	The necessary air quality control measures and mitigation; are included as part of the CoCP (Volume 9, Report 9.21). The CoCP has been developed for the proposed onshore construction activities and adheres to construction industry good practice guidance for control measures and dust management	Schedule 2 Requirement 9

Table 3.10 Volume 9, Document 21: Code of Construction Practice (CoCP)

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
180	Core working hours for construction of the onshore components for VE are as follows: 07:00 to 19:00 hours Monday to Saturday; On Saturdays between 13:00 and 19:00 no high impact works (e.g. piling/breaking out) shall take place, unless required by the circumstances in 3.2.2. No activity where noise is audible beyond the Order limits will take place outside of these hours including Sundays, public holidays or bank holidays apart from under the following circumstances: Where continuous periods of construction work are required, such as concrete pouring or directional drilling.	Schedule 2 Requirement 8

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	For the delivery of abnormal loads to the connection works, which may cause congestion on the local road network, where the relevant highway authority has been notified prior to such works 72 hours in advance; Where works are being carried out in the marine environment and may be tidally restricted; For internal fitting out works associated with the onshore substation; The testing or commissioning of any electrical plant installed as part of the onshore infrastructure; Security monitoring; and Activity necessary in the instance of an emergency where there is a risk to persons, the environment, delivery of electricity or property, as otherwise agreed in writing with the local planning authority.	
181	The Code of Construction Practice (CoCP) has been developed to reduce and mitigate the effects of VE during onshore construction.. It sets out a series of good practice measures, standards of work and monitoring, which will be applied throughout the construction period to: Provide effective planning, management and control during construction to manage and mitigate potential impacts on people, businesses and the natural and historic environments Provide a framework for engaging with the local community and its representatives throughout the construction period.	Schedule 2 Requirement 8
182	For the avoidance of doubt, this CoCP relates to the construction of the onshore electrical infrastructure elements of VE only (i.e landward of Mean High Water Springs). This includes the following construction works: > Export Cable Corridor (ECC); > Temporary Construction Compound (TCC) and Site Accesses; > Onshore Substation (OnSS); and > Works by VE to connect to and within the National Grid Electricity Transmission (NGET) East Anglia Connection Node (EACN) Substation, and associated underground connection works from the OnSS	Schedule 2 Requirement 9
183	If a beach works TCC is constructed in the area of land adjacent to the promenade at the eastern end of Manor Way noise mitigation will be required during its construction and removal. These measures include, but are not limited to, one or a combination of the following: > the selection of quieter equipment; > relocating noisier plant at greater distances from the Noise Sensitive Receptors (NSR);	Schedule 2 Requirement 8

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	> the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	
184	, the following vibration mitigation measures will be undertaken during the construction and the removal of the beach works TCC: > vibratory compaction roller will not be used within 38m of Sluice Cottages for a period of more than 10 days in any 15 consecutive days; and > start-up and run-down of the vibro-roller will take place within 48m of Sluice Cottages, ideally at least 123m away.	Schedule 2 Requirement 8
185	A noise barrier / site hoarding will be installed on the western perimeter of the TCC construction site. In addition, one or more of the following mitigation measures will be carried out: > locating TCC1 as far as possible from Great Holland Lodge and Lodge Farm residential properties; > relocating noisier plant as far as practicable from the above two dwellings; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
186	TCC2 will be constructed as far west as possible within the TCC construction site. In addition, one or a combination of the following mitigation measures will be employed: > the selection of quieter equipment; > relocating noisier plant at greater distances from the NSRs; > the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
187	Additional mitigation will only be necessary if construction works for TCC4 takes place in the far north-western or south-eastern tip of the available land. Where practicable, TCC 4 will be located at least 156m from Cyprus Cottage, Tendring Road and Barkers Cottages, Thorpe Road; in which case, no further mitigation will be necessary. Any works taking place within 155m of these dwellings will be limited to a period of no more than 9 or more days in any 15 consecutive days, and a total number of days not exceeding 40 in any 6 consecutive months.	Schedule 2 Requirement 8
188	Additional mitigation will only be necessary if construction works for TCC5 takes within 155m from Barkers Cottages, Thorpe Road. Any works taking place within 155m of these dwellings will include, but are not limited to, one or a combination of the following mitigation measures: > the selection of quieter equipment; > relocating noisier plant at greater distances from Barkers Cottages; > the use of a noise barrier around the perimeter of the works for the section between the works and Barkers Cottages; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8

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189	Mitigation will only be necessary if TCC6 is constructed within 155m of New House Farm, Clacton Road or Abbotts Hall Cottages off Clacton Road. No construction work take place within 55m of these dwellings. For any construction activities taking place at a distance of between 55m and 155m of these dwellings one or a combination of the following mitigation measures will be employed: > the selection of quieter equipment; > relocating noisier plant at greater distances from the NSRs; > the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
190	Additional mitigation will only be necessary if TCC8 is constructed within 155m of New Hall Cottages, Clacton Road. Any works taking place within 155m of these dwellings will include, but are not limited to, one or a combination of the following mitigation measures: > the selection of quieter equipment; > relocating noisier plant at greater distances from New Hall Cottages; > the use of a noise barrier around the perimeter of the works for the section between the works and New Hall Cottages; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
191	Additional mitigation will only be necessary if TCC11 is constructed within 155m of Hawkins Farm Cottages, Paynes Lane. Any works taking place within 155m of these dwellings will include, but are not limited to, one or a combination of the following mitigation measures: > the selection of quieter equipment; > relocating noisier plant at greater distances from Hawkins Farm Cottages; > the use of a noise barrier around the perimeter of the works for the section between the works and Hawkins Farm Cottages; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
192	The entry and / or exit pit associated with any trenchless crossing will not be located within 25m of any dwelling. Figure 9.8 illustrates the sections of the ECC where noise mitigation is required during the duct installation works. Two levels of mitigation are shown: standard and enhanced, as detailed below.	Schedule 2 Requirement 8
193	Standard mitigation measures include, but are not limited to, one or a combination of the following: > the selection of quieter equipment; > relocating noisier plant at greater distances from the NSRs; > the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8

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194	Enhanced mitigation measures include, but are not limited to, at least two of the following: > the selection of quieter equipment; > relocating noisier plant at greater distances from the NSRs; > the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
195	For nighttime work an appropriate level of mitigation would be required to lower the noise level to a maximum of 48 dB at the nearest NSR. This mitigation can be achieved by the combination of more than one of the following: > the selection of quieter equipment; > relocating noisier plant at greater distances from nearby dwellings; > the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
196	The entry and / or exit pit associated with any trenchless crossing will not be located within 25m of any dwelling.	Schedule 2 Requirement 8
197	Any construction works associated with the Bentley Road and A120 junction highway improvements taking place within 100m of a dwelling will be require additional mitigation to control construction noise. The mitigation will include, but are not limited to, one or a combination of the following: > the selection of quieter equipment; > relocating noisier plant at greater distances from the dwellings; > the use of a noise barrier around the perimeter of the works; or > localised acoustic screening around noisy plant and the use of an enclosure.	Schedule 2 Requirement 8
198	In addition to the above noise mitigation measures, vibration mitigation will be employed when using the vibratory roller immediately outside of the following dwellings situated on Bentley Road: > Orchard Cottage; > Jasmine Cottage; and > Pellens Cottage. Where practicable, the distance between the vibration compaction works and the above dwellings will be increased to be at least 8 m. In cases where this is not possible, the vibration compactor used shall have one or more of the following: > a single drum; > a drum amplitude of less than 0.5mm; > a drum with a width of at least 2m; or	Schedule 2 Requirement 8

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	> the use of an alternative method of ground compaction works that results in vibration levels inside any dwelling of less than 10 mm/s (Peak Particulate Velocity) for a period not exceeding nine days.	

Table 3.11 Volume 9, Report 22: Outline Landscape and Ecological Management Plan (OLEMP)

MARCH 2024 – DCO APPLICATION		
ID	**Mitigation Measure Commitment**	**Secured by?**
199	3.4.1 An Ecological Clerk of Works (ECOW) shall be employed for the duration of project construction (including pre-commencement/ enabling works as required) to ensure species specific mitigation, method statements and plans are implemented effectively. Ecological measures within the final LEMP which are required for pre-commencement or construction will be undertaken under the guidance of the ECOW. Supervision of post-construction monitoring and management is covered in section 10.2. 3.4.2 The ECOW will undertake the following tasks: > Arrange all specialist ecological surveys; > Undertake regular site inspections and pre-clearance checks (as distinct from pre-commencement/ pre-construction surveys) for legally protected or notable species; > Monitoring compliance with the LEMP and any protected species licence(s) during construction; > Assist in delivering site inductions and toolbox talks (i.e. presentations and the dissemination of information to site personnel on ecological matters); and > Notifying the Applicant and/ or Principal Contractor of any issues/ breaches of the measures detailed in the LEMP. 3.4.3 All site workers will be informed of the role and contact details of the ECOW. A copy of the LEMP will be kept on site at all times and site workers will be made aware of its location and/ or who to contact in order to obtain a copy of the LEMP. 3.4.4 Given the large scale of the project it is anticipated that an ECOW team may be required, with the lead ECOW delegating duties to an appropriately skilled and experienced deputy/ assistant ECOW(s), where necessary. The lead ECOW would be expected to have a minimum of three years' experience as a professional ecologist including suitable ECOW experience, preferably on large linear infrastructure projects with knowledge of UK ecological policy and legislation. The lead ECOW would be a member or an appropriate professional body, in the case of the Chartered Institute of Ecology and Environmental Management (CIEEM) this would be Associate	Schedule 2 Requirement 12

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	grade (ACIEEM) or above. They would also hold a Construction Skills Certification Scheme (CSCS) card (or equivalent). Deputy/ assistant ECOWs would also be expected to possess a suitable qualification and/or relevant professional experience. 3.4.5 Curriculum vitae for the lead ECOW and other members of the ECOW team would be provided to the Local Planning Authority to demonstrate adherence to the role description, prior to construction commencing, thereby ensuring that proposed ECOW team members are suitably qualified and experienced. 3.4.6 The ECOW/ ECOW Team will be appointed either by the Principal Contractor or by the Applicant to oversee preliminary works and construction works. It is also possible that separate ECOW/ ECOW Teams will be appointed by the Principal Contractor and the Applicant, with each ECOW/ ECOW team performing different roles. 3.4.7 Roles, responsibilities and lines of communication would be determined at the detailed design stage, with details provided in the final CoCP and final LEMP.	
200	4.1.1 Direct effects on the SSSI will be avoided through the use of HDD or other trenchless technique. The landfall compound will be located within an agricultural field supporting modified grassland that also constitutes the Section 41 (S41) (of the Natural Environment and Rural Communities (NERC) Act 2006) priority habitat coastal and floodplain grazing marsh, located immediately adjacent to, but outside of the SSSI. The following measures are proposed to protect the SSSI and its notified features: > Pre-commencement/ pre-construction surveys for SSSI notified features including hog's fennel Peucedanum officinale (the foodplant of Fisher's estuarine moth), S41 and/ or red data book species that may be affected and whose distribution could have changed since the baseline surveys were undertaken to update the baseline and determine potential impacts at the time of construction. Micro-siting of project elements will be used to avoid important ecological features, where possible. > Minimum of 10m buffer of undisturbed habitat retained between the construction footprint and the SSSI. > Protective fencing will be installed around retained habitats of importance located directly adjacent to working areas. 4.1.2 The pre-clearance check for the presence of hog's fennel shall be undertaken during June – September during the season prior to work commencing. If a plant(s) is located and cannot be retained in situ, then options for translocation and/ or propagation will be explored. It is anticipated that any such exercise would be informed by/ in collaboration with conservation work already ongoing, involving NE, Tendring District Council, Colchester Zoo, Essex Wildlife Trust, and Writtle College. The risk of damage or disturbance to Fisher's estuarine moth food plants, and/ or individuals outside of the designated site is considered to be very low, and the success of mitigation (if required) is considered highly likely based on reported conservation efforts to date (for example online at the Action for the Wild website and Colchester Zoo (2022).	Schedule 2 Requirement 8

4.1.3 Measures to protect breeding birds associated with the SSSI include:

> Removal of potential nesting bird habitat will take place outside of the breeding season (March – August inclusive), where possible, to avoid damage to, or destruction of active nests. Where this is not possible, a check for the presence of nesting birds by the ECOW will take place in advance of work. Where active nests are located the relevant areas of vegetation would be retained until such time as young fledge or the relevant nesting attempt has ended.

> Surveys for Schedule 1 bird species and other breeding species of conservation concern which are likely to be particularly sensitive to disturbance, e.g., breeding waders, will take place prior to and during construction (as required). Avoidance of disturbance to these species whilst nesting will be achieved through the implementation of disturbance-free buffer zones around active nests. The extent of any buffer zones will be species and location-specific and will be determined by the ECOW, taking into consideration relevant guidance and experience from other sites, as appropriate. The ECOW will also monitor nesting attempts to check that the agreed buffer zones are successful.

4.1.4 Measures to reduce disturbance to non-breeding birds at the landfall, including species associated with the SSSI, are also proposed and comprise:

> Piling (if required at the landfall) would either take place outside the winter period (October to March) or would utilize less noisy, vibro-piling technology.

> Fencing/ hoarding would be used during the winter months to provide visual and acoustic screening of the landfall compound. Where practical, similar measures would also be employed in other areas where disturbance to significant numbers of non-breeding waterbirds associated with the SSSI is likely. The requirement for such measures would be determined by the ECOW, considering the nature and timing of the works and relevant bird data, including previous survey data and observations made during the construction period. Full details of proposed fencing type and approach would be provided in the final LEMP, post consent but prior to construction commencing, once detailed construction designs and programmes are available.

> If necessary, works at the landfall would be suspended during periods of very cold weather. Disturbance to non-breeding waterbirds is likely to be most critical during periods of prolonged cold weather, when they may be unable to feed in their usual foraging areas and may face reduced prospects for survival. A scheme has been in place since 1983 to minimise the level of disturbance from wildfowl shooting in frozen conditions (JNCC, 2019). Similar measures would be imposed here, with the works suspended after seven consecutive days on which the ground was frozen (as measured at a nearby weather station). Any suspension of works would last for a minimum of seven days thereafter and any lifting of the suspension will take into consideration the need for a period of recovery for waterbirds after the end of the severe weather itself. Any cold cweather suspension of works, if required, would only apply at the landfall as non-breeding waterbirds are likely to move to the coast during such

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	conditions (as the inland fields would be frozen). 4.1.5 Lighting for construction will be minimised to the lowest safe level, and designed such that there will be no significant increase in illumination levels at the SSSI above current levels via use of cowls and compliance with the relevant guidance (BCT, 2023). As a resultthere will therefore be no significant effect on SSSI invertebrate populations . 4.1.6 All habitats will be reinstated as soon as possible after construction – refer to Section 8.	
201	5.1.1 Working areas will be enclosed within temporary fencing (e.g. Heras fencing) to avoid inadvertent damage to adjacent habitats. All retained trees will be protected by Root Protection Areas (RPAs) within the OL during construction. The final micro-siting and maintenance of fencing locations shall be as instructed by the ECOW. 5.1.2 An Arboricultural Feasibility report has been prepared and is attached at Appendix 1. It presents the findings of the high-level arboricultural survey and arboricultural constraints associated with the proposed onshore elements of the Five Estuaries Offshore Wind Farm (VE OWF). It will be used to develop the proposed scheme in a manner which avoids high and moderate quality trees (category A and B respectively) as far as possible. 5.1.3 Following more detailed design development, pre-commencement/ pre-construction full survey will be undertaken by an appropriately experienced arboriculturist and the guidance set out in BS5837:2012 Trees in Relation to Construction will be adhered to where applicable. For trees which cannot be avoided, the survey will define specific mitigation measures required for trees situated in or immediately adjacent to the working width, including where practical, measures such as the erection of protective fencing in order to minimise the impacts on trees and their roots. These will be specified it the final LEMP, once final scheme design is known. 5.1.4 The location and type of all protective fencing will be specified in the Final LEMP.	Schedule 2 Requirement 12
202	6.1.1 Construction may result in temporary loss of arable margin habitat, which by its nature is transitory in character. For this reason it is considered appropriate for creation and maintenance of an equivalent area of arable margin habitat to be provided during the construction period. This will be via changes to existing cropping regime/ management and/ or sowing of appropriate seed mixture. 6.1.2 The location(s) and type of management or seed mixtures will be specified in the final LEMP, but may include cultivation followed by natural colonisation by annuals, sowing of tussocky grasses, sowing of wildflowers or a pollen and nectar mix and/ or sowing of game bird mix strips and corners (wild bird cover crops), 6.1.3 Once construction is complete, these areas will be reinstated as described at Section 8.	Schedule 2 Requirement 12
203	7.2.1 Due to the time that will have elapsed since the last surveys and the possibility that species presence or activity could have changed in the intervening period, pre-commencement/ pre-construction surveys will be undertaken for a number of species/ species groups. These include certain species which, based on current information, will not be affected by the proposed development (and are therefore not subject to the mitigation and compensation measures set out in this document) but which could potentially (re)colonise the area within the OL	Schedule 2 Requirement 12

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	prior to construction commencing. 7.2.2 The aspects of this OLEMP that will be adhered to in carrying out 'pre-commencement' survey activities (where relevant to those activities), are as follows: > Appointment of an ECOW (as set out in Section 3.4); > Measures to protect Holland Haven Marshes (as set out in Section 4) > Measures to protect other retained habitats (as set out in Section 5); > Measures to address potential impacts on protected and notable species (as set out in Section 7); and > Monitoring during construction (as outlined in Section 10). 7.2.3 The results of the pre-commencement/ pre-construction surveys will be used to identify whether any changes to the mitigation measures are required and the Final LEMP will be updated to reflect the survey results, as required. 7.2.4 Table 7 1 provides further details of the surveys proposed, including details of proposed survey areas (focusing on the areas likely to be affected by the works), timings and methodologies. All surveys will be undertaken by suitably experienced/ licensed ecologists who are members of an appropriate professional body, e.g. CIEEM.	
204	7.3.1 As set out in Table 7 1, pre-commencement/ pre-construction botanical survey will be undertaken during the summer prior to work commencing to determine the presence of notable or protected plant species in areas that would be affected by construction. The results will be used to identify areas which should be prioritised for salvage or other special measures, the details of which would be included in the Final LEMP. 7.3.2 The exact mitigation/ compensation method would be dependent on the species and habitat concerned but may include seed saving and propagation or translocation of individual plants	Schedule 2 Requirement 12
205	7.4.2 Embedded mitigation for impacts to GCN is via project siting and design. The embedded measures which are pertinent to GCN include retention of all ponds, with trees and hedgerows retained wherever practicable. Additional key principles that will be followed in order to mitigate for impacts are described below. EUROPEAN PROTECTED SPECIES LICENCE (EPSL) REQUIREMENTS 7.4.3 Re-assessment of EPSL requirements will be undertaken based upon pre-commencement survey results and final scheme design. 7.4.4 The assessment presented in the ES (Volume 6, Part 3 Chapter 4: Onshore Biodiversity and Nature Conservation) is based upon a reasonable worst case scenario using current survey data and indicative scheme design. Using the Natural England Rapid Risk Assessment tool (part of the NE GCN EPSL Method Statement template) it has been concluded that an EPSL may be necessary in view of temporary impacts to terrestrial habitat along the ECC, and that the District Level Licensing (DLL) approach would be appropriate. VE has applied for and it is anticipated that NE will issue an Impact Assessment and Conservation Payment Certificate (IACPC), which	Schedule 2 Requirement 14

	sets out that this approach is acceptable in principle (this is pending at the time of writing, and will be included at ES Volume 6, Part 6, Annex 4.20 GCN District Level Licencing Impact Assessment and Conservation Payment Certificate and associated documents). 7.4.5 However, it is anticipated that actual impacts to GCN populations will be reduced as a result of the final scheme design having a smaller footprint than that assessed in the ES as reasonable worst case. Once the pre-commencement surveys are completed and the final scheme design known, the Natural England Rapid Risk Assessment tool will again be applied to help determine the requirement for an EPSL. If it remains the case that an EPSL is needed, then an updated IACPC would be applied for and implemented or a standard EPSL may be sought, depending upon specific impacts, and availability of the DLL scheme at that point. MITIGATION MEASURES 7.4.6 Full mitigation details can only be determined at a later date, once pre-commencement/ pre-construction surveys are complete and final scheme design is known. Mitigation details would be included in the final LEMP and are likely to include the following measures: > All work with potential to affect GCN will be overseen by a suitably experienced ECOW. > The ECOW will provide a toolbox talk to site workers in advance of work with potential to affect GCN. This will detail the potential presence of GCN, their identification and what to do if one is seen. > Mitigation will involve the management of vegetation (e.g. strimming long grass) to discourage occupation by amphibians and the identification and removal of potential refugia and hibernacula (if present) prior to construction works taking place in the relevant areas. These works will be undertaken under the supervision of the ECOW. Removal of places of shelter would only be undertaken during active periods of the GCN life cycle (considered to be March – November). > Removal of GCN (under EPSL) and other amphibians from areas where there is risk of injury or death would be undertaken in advance of work. Translocated GCN would be moved to the nearest suitable habitat that would remain undisturbed during construction; > Where required, temporary mitigation for temporary loss of significant GCN foraging areas along the onshore ECC will be provided where practical within the OL as close as possible to the area lost or will be mitigated via the DLL route.	
206	7.5.1 Reasonable avoidance measures will be employed to reduce the chances of inadvertently killing or injuring individual reptiles during construction works in potentially suitable reptile habitat. Most potentially suitable habitat has been avoided through sensitive design, but it remains possible that reptiles may be encountered at other areas within the OL including rough grass, field boundaries, scrub and hedgerows, and as identified by the ECOW. 7.5.2 Mitigation will be as for GCN, described above.	Schedule 2 Requirement 9 Requirement 14

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207	7.6.1 Removal of potential nesting bird habitat will take place outside of the breeding season (March – August inclusive), where possible, to avoid damage to, or destruction of active nests. Where this is not possible, a check for the presence of nesting birds by the ECOW will take place in advance of work. Where active nests are located the relevant areas of vegetation would be retained until such time as young fledge or the relevant nesting attempt has ended. 7.6.2 Surveys for Schedule 1 bird species and other breeding species of conservation concern which are likely to be particularly sensitive to disturbance, e.g., breeding waders, will take place prior to and during construction (as set out in Table 7 1). Avoidance of disturbance to these species whilst nesting will be achieved through the implementation of disturbance-free buffer zones around active nests. The extent of any buffer zones will be species and location-specific and will be determined by the ECOW, taking into consideration relevant guidance and experience from other sites, as appropriate. The ECOW will also monitor nesting attempts to check that the agreed buffer zones are successful.	Schedule 2 Requirement 9
208	7.7.1 Measures to reduce disturbance to non-breeding birds at the landfall were outlined in Section 4 (in relation to Holland Haven Marshes SSSI). The following measures would be implemented elsewhere along the onshore ECC and at the OnSS. 7.7.2 Where practical, in areas where disturbance to significant numbers of non-breeding waterbirds is likely, measures such as fencing/ hoarding would be used during the winter months to provide visual and acoustic screening of active working areas. The requirement for such measures would be determined by the ECOW, considering the nature and timing of the works and relevant bird data, including previous survey data and observations made during the construction period. 7.7.3 Based on current survey data such measures are most likely to be required in Route Section 3, where the route passes closest to Hamford Water, and may include screening of waterbodies used by relatively large numbers of waterbirds, where screening isn't provided by existing vegetation or topography. Full details of proposed fencing would be provided in the final LEMP, post consent but prior to construction commencing, once detailed construction designs and programmes are available.	Schedule 2 Requirement 9
209	7.8.4 Embedded measures which are pertinent to bats include use of HDD beneath all woodlands (rather than trenching through the woodland), and retention of all trees and hedgerows wherever practicable. The over-riding principle is for no net loss of potential roost resource as a result of the scheme. Embedded mitigation also includes ensuring construction lighting at HDD locations is at the lowest, safest permissible level and with light spill minimised. 7.8.5 The construction phase may however result in the loss of a number of mature trees, including some which have moderate or high potential to support bats. None have been found to support roosting bats to date, but since tree roosting bats utilise a range of locations over any given season, an EPSL may later prove necessary	Schedule 2 Requirement 9 Requirement 14

pending the findings of the pre-commencement surveys.

7.8.6 The construction phase will also result in some temporary hedgerow removal, which may affect bat foraging routes.

7.8.7 Key principles that will be followed in order to mitigate and compensate for impacts are described below.

EPSL REQUIREMENTS

7.8.8 Based on current survey data and scheme design, an EPSL is not required. However, re-assessment of EPSL requirements will be undertaken based upon pre-commencement survey results and final scheme design. If required, an EPSL application would be submitted to NE in advance of work affecting bat roosts.

MITIGATION AND COMPENSATION MEASURES

7.8.9 Compensation roost features will be provided for every potential roost feature (as identified by the pre-commencement/ pre-construction surveys) affected prior to loss. This compensation measure applies regardless of whether a confirmed roost is affected. The compensation roost features will aim to provide a functionally equivalent potential roost resource and may include re-use of cavity containing sections, re-use of whole felled trunks by setting vertically as monoliths, veteranisation (cutting and carving into healthy trees to mimic nature, to speed the process of decay and rot holes) and/ or bat boxes on retained trees or installed poles, as appropriate.

7.8.10 Compensation features will be installed as close as possible to those lost, whilst also addressing other constraints, such as the requirement to be within an unlit area, ideally away from Public Rights of Way (PROW) and within or close to potential flight lines. In all cases the compensation measures for confirmed roost loss would be within the Core Sustenance Zone of the species concerned.

7.8.11 Subject to the timing of pre-commencement/ pre-construction survey, re-scoping (pre-felling check) will be undertaken at the point of felling. Due to natural decay processes and weather damage, historic data will not be used as a basis for final decision making in respect of felling: all trees will be re-scoped (ground-level assessment only) by a suitably experienced ECOW prior to felling. Thereafter the following measures will be taken:

> Potential Roost Feature (PRF) absent – trees may be felled without additional measures.

> PRF present – trees subject to an aerial inspection by a suitably qualified and licensed batworker immediately prior to felling.

> If no evidence of bats is recorded and bat absence can be conclusively determined at all PRF, then the PRF may be immediately blocked or removed and/or tree can be immediately felled without additional special measures. In this instance PRF filling/ removal and/ or tree felling may be conducted during all months of the year.

> If it is not possible to conclude bat absence (such as with long or complex PRF which preclude full endoscope inspection, or if parts of the tree are inaccessible due to fragility) relevant trees plus the surrounding 10m vegetation (minimum, to be advised by the ECOW) will be left in situ until the bat active season (April –

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	October). Prior to felling, these trees will be subject to a single emergence and re-entry survey (i.e. back-to-back), and assuming no bats are recorded, an update aerial inspection by a suitably qualified licensed batworker. If no evidence of bats is recorded during the process, the parts of the tree containing PRFs will then be soft and/ or sectionally felled within 24 hours of the preceding emergence survey, under the direction of the ECOW. Felled cavity-containing sections will be left undisturbed on site for any undiscovered bats to depart. > Confirmed Roost – in all cases disturbance to or felling of roost trees will take place during the period that bats are most likely to be absent or least sensitive to impacts (i.e. in autumn/ winter in the case of maternity roosts), and under an EPSL. All work under the EPSL which could result in disturbance of bats would be overseen by the Named Ecologist, or his/ her Accredited Agent (such as a suitably skilled and experienced ECOW). 7.8.12 Impacts to commuting and foraging bats will be reduced by: > Filling temporary hedgerow gaps overnight during construction (and thereafter) with a “dead hedge” during the bat active season (April to October) until such time as reinstated vegetation has established and is at least 1 m tall. These locations shall be identified in the Final LEMP, and will be based upon pre-commencement/ pre-construction survey data plus final scheme design details. The dead hedge will be in place at least one hour before dusk and will be removed no earlier than 30 mins after dawn (unless EPSL requirements specify otherwise or a temporary exemption has been pre-agreed with the ECOW in view of ongoing construction work that finishes late/ starts early). During the day the dead hedge will be either left in-situ (if the hedgerow gap is not needed for access/ construction) or carefully placed in a nearby location that is not within the active working area. The location would be agreed with the ECOW and is anticipated to be different for each hedgerow. > During construction the “dead hedge” will comprise Heras fencing (or similar, to enable sections to be manoeuvred into/ out of position) with brash attached to a height of at least 1.2m. During construction the ECOW will regularly monitor each section of dead hedge and additional brash will be added to each section of Heras fencing if considered needed. > Post construction, the “dead hedge” will comprise brash to a height of at least 1.2m, held in place with untreated wooden stakes, and will be allowed to degrade naturally. These would be subject to regular monitoring until the reinstated hedgerow(s) are at least 1m tall. Maintenance and repairs would be undertaken, as required. > Figure 1 shows, in principle, how woodland and hedgerow planting will be undertaken at the OnSS to satisfy both landscape and ecological objectives. In addition, it identifies areas where habitats are enhanced from arable uses to more diverse grassland and orchard. These changes will result in an increase in connected high quality foraging areas since they are of benefit to invertebrates with consequential benefits for other animal species, including bats.	
210	7.9.3 Reasonable avoidance measures shall be implemented and may include micrositing certain elements and/ or installing protective fencing to minimize disturbance to retained setts, ensuring excavations remain closed	Schedule 2 Requirement 9

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	overnight or contain ramps such that badgers cannot become trapped and ensuring stockpiled soil is fenced or regularly disturbed so as to deter badger sett creation within it. 7.9.4 If pre-commencement/ pre-construction surveys determine that a badger sett will be affected, then a licence from NE will be needed in advance of work that disturbs the sett. Depending on the degree of disturbance, mitigation may be relatively limited such as amending work schedules, or more complex in the event a sett requires closure, in which case creation of artificial replacement sett in advance may be needed (depending on the type and usage of the original). Any such measures would be discussed and agreed with NE in advance, and would form part of the licence Method Statement.	Requirement 14
211	7.10.2 Reasonable avoidance measures would be used to reduce the risk of committing an offence under the protecting legislation. These would be broadly similar to those described for badger (above). 7.10.3 Based on current information, the construction phase will not directly impact any otter holts or resting places, however potential impacts shall be reviewed following completion of the pre-commencement/ pre-construction surveys and pre-clearance checks by the ECOW. An EPSL may be necessary from NE if a holt may be impacted. 7.10.4 If pre-commencement/ pre-construction surveys or ECOW pre-clearance checks conclude the species is present and that micrositing to avoid impact is not possible, then mitigation for temporary habitat loss and disturbance may include: > scheduling of work to avoid sensitive periods of the otter life cycle; > deterrence of otter from areas where there is risk of injury or death in advance, such as by installation of otter-proof fencing; > minimising disturbance from light and human presence via temporary screening and potentially amending working hours; and > reinstatement of bankside habitats immediately after work, to include sowing with species rich locally appropriate sward and fencing to prevent stock access.	Schedule 2 Requirement 9 Requirement 14
212	7.11.2 The construction phase affects two water courses which support water vole; a 10m wide haul road is proposed to cross the Tendring Brook (utilising an existing access that may require upgrading) and the Holland Brook north of Horsley Cross. Based upon current survey data a licence is not considered necessary to enable this work to proceed. However, this will be re-assessed based upon pre-commencement/ pre-construction survey results and final scheme design. MITIGATION AND COMPENSATION MEASURES 7.11.3 If pre-commencement/ pre-construction surveys or ECOW pre-clearance checks conclude the species is present and there is potential for the detailed design to significantly affect water vole habitat then mitigation for temporary habitat loss and disturbance may include:	Schedule 2 Requirement 9

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	> Micro-siting to avoid water vole burrows (if present). > Scheduling of work to avoid sensitive periods of the water vole life cycle. > Removing vegetation back to bare earth in spring and autumn. > Carrying out a destructive search of water vole burrows, after an appropriate monitoring period, after removing vegetation. > Creation of temporary compensation/ mitigation habitats for use by water vole in immediately adjacent areas (such as provision of nest boxes or feeding stations, sympathetic management of bankside habitats) for the construction plus vegetation re-establishment period. > Reinstatement of bankside habitats immediately after work, to include sowing with species-rich locally appropriate sward and fencing to prevent stock access. 7.11.4 The above measures would be accommodated within the OL.	
213	One hedge (reference 5EHE_38) with dormouse presence confirmed (one old nest on one occasion, at the southern end of the hedgerow) may be affected on the ECC. The option of trenchless crossing and an off-route haul road has been retained at this location, such that if dormouse are present in future impacts to the species can be avoided, and there would be no requirement for an EPSL. However, there is potential for the project to directly impact dormouse at two locations where haul routes are required through hedgerows at the B1035. EPSL REQUIREMENTS 7.12.2 Two 10m wide hedgerow breaches to enable haul route access from the B1035 Thorpe Road to the onshore ECC are proposed. Current field survey data does not include records for dormouse in the hedges, but the species is present directly adjacent and so its potential future presence cannot be ruled out. The requirement for an EPSL will be re-assessed based upon pre-commencement/ pre-construction survey results and final scheme design. 7.12.3 In the event an EPSL is required, the EPSL application would be submitted to NE in advance of work. The conditions of the EPSL would be specified to ensure that construction and temporary presence of the haul road does not result in significant adverse impacts to the local population. MITIGATION AND COMPENSATION MEASURES 7.12.4 If pre-commencement/ pre-construction surveys or ECOW pre-clearance checks conclude the species is present and there is potential for the detailed design to affect dormouse, then mitigation for temporary habitat loss and disturbance may include: > creation of temporary compensation/ mitigation habitats for use by dormice in immediately adjacent areas. This may include installation of dormouse boxes and cessation of field-side hedgerow management for the construction plus hedgerow re-establishment period (roadside hedgerow management practice to remain as currently, for road safety purposes).	Schedule 2 Requirement 9 Requirement 14

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	> Scheduling of certain work to avoid sensitive periods of the dormouse life cycle; standard practice would be followed i.e., a two-stage removal. Top growth of the hedgerow would be removed in the winter months (November – February) when dormouse are hibernating, avoiding ground disturbance. Clearance of stumps, roots and other vegetation would be undertaken from May – September thereafter. > Deterrence from areas where there is risk of injury or death in advance. > Reinstatement of hedgerow habitats immediately after construction.	
214	7.13.1 Checks for the presence of hedgehogs, hares, harvest mice or other protected or notable species will be carried out by the ECOW prior to vegetation clearance. Additional reasonable avoidance measures will be implemented/ mitigation licences applied for as necessary. Reasonable avoidance measures that may be employed if these species are present would be as follows: HEDGEHOG 7.13.2 Towards the end of the autumn period (typically in November but dependent on temperature), any suitable habitat for hedgehogs to use for hibernating, such as tree roots, hedgerows, old mammal burrows, under timber buildings or compost heaps will be removed, where possible, thus minimising the risk of any hedgehogs hibernating within the development site (British Hedgehog Preservation Society 2009 Hibernation. From Know Your Hedgehog Series). If an area of potentially suitable habitat could not be removed ahead of when hedgehogs would be expected to commence hibernating, then the areas of remaining habitat would be carefully inspected by the ECOW before they are removed. Any hedgehogs found would be relocated, with any nesting material, to a hedgehog box within the nearest suitable undisturbed habitat. BROWN HARE 7.13.3 Areas of suitable habitat with vegetation greater than 200mm in height would be subject to a two-stage cut of vegetation which would remove any suitable habitat for brown hare and lead to them leaving the area. HARVEST MOUSE 7.13.4 As for breeding birds, in areas of potentially suitable habitat for harvest mouse vegetation will be removed outside of the harvest mouse breeding season where possible. If this is not possible, a suitably experienced ecologist will undertake a search of vegetation/ the area to be removed immediately prior to clearance, so that any harvest mouse nest sites can be identified and their clearance delayed until any young have vacated the nest.	Schedule 2 Requirement 9 Requirement 14
215	8.1.1 The Onshore ECC and TCCs largely affect habitats of low conservation value, i.e. agricultural grassland and cropland. These will be reinstated to their previous state following construction. 8.1.2 The Onshore ECC passes through hedgerows and may affect trees with potential to support bat species that could also be lost during construction. The number of trees which need to be removed will be kept to a minimum and, where possible, trees will be avoided where temporary access is required. Following construction, removed trees will replaced in situ with heavy standards, at a 3:1 ratio for any lost, except for those above cables	Schedule 2 Requirement 9

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	which cannot be replaced in situ for operational reasons (i.e. because access to the cables is required). 8.1.3 Compensation for loss of hedgerows will be provided by re-instating native, species-rich hedgerows with trees, and including ditches where these were also present originally. Hedges will be reinstated at their original location and comprise a locally appropriate mixture of at least seven woody species and including heavy standard trees at a 3:1 ratio for any lost (noting that trees will not be planted above the installed cables). 8.1.4 Compensation for the loss of trees along the route will also be provided by the proposed screen planting at the OnSS (see Section 2 and Section 8 of this document). 8.1.5 Reinstated habitats will be subject to an aftercare period of up to five years following reinstatement, to be extended (if required) if reinstatement is not deemed to have been successful. The methods of aftercare will be agreed in the Final LEMP and subject to the results of monitoring but are likely to include the management of undesirable weeds. During the aftercare period certain areas (such as adjacent to PROW) are likely to need protection from disturbance by people, dogs and grazing animals. The precise methods for protection will be agreed as part of the Final LEMP but is likely to involve the use of temporary fencing and signage. 8.1.6 Reinstatement and aftercare would be the responsibility of VE or its appointed contractors and would only be undertaken by suitably experienced contractors. Following the aftercare period, it is envisaged that ongoing management would revert to the existing management regimes and would be the responsibility of the existing landowner/ manager. 8.1.7 Following the aftercare period, it is intended that public access will be maintained in line with existing access arrangements and that all existing footpaths will continue to be used. Management of access during construction is beyond the scope of this OLEMP and is provided within the outline CoCP at ES Volume 9, 9.21 Code of Construction Practice.	
216	9.1.2 Compensation for loss of hedgerows at the OnSS will be provided by re-instating native, species-rich hedgerows with trees, and including ditches where these were also present originally, as well as creating new hedgerows if/ where this is not possible. Hedges will be reinstated at their original location (or as close as possible), new hedgerows will be located so as to re-establish links and maintain the network. In all cases the hedgerows will comprise a locally appropriate mixture of at least seven woody species and unless directly adjacent to woodland, will also include heavy standard trees at a 3:1 ratio for any lost (noting that trees will not be planted above cable routes). Trees over and above the 3:1 replacement ratio would be considered to be an ecological enhancement. 9.1.3 In addition, S41 priority habitats lowland meadow, traditional orchard, ponds and broadleaved woodland will be created, as well as species rich neutral grassland. The aim is to provide a structurally diverse mixture of habitat types, sheltered wildflower meadows, orchards and glades, including dry stony and ephemerally wet areas suitable for sustaining a range of locally present plant and animal species.	Schedule 2 Requirement 12

9.1.4 The indicative landscape mitigation plan included at Figure 1 indicates how this may be achieved (and has been used as the basis for the BNG Indicative Design Stage Assessment at Volume 6, Part 6, Annex 4.18 of the ES); it is important to note that the figure is illustrative at this stage, i.e. the extent and location of habitats, mitigation and compensation measures may change at the detailed design stage.

9.1.5 Lowland meadow creation would be initiated via careful soil management, to ensure the replaced soil is of low fertility and prepared to a good standard. In this instance due to the likely high nutrient status of the soils, it is proposed to invert the topsoil and subsoil prior to reseeding. At certain locations a thin depth (<5cm) of topsoil may be appropriate to ensure slightly earlier colonisation. The seed mixture used would be a native, locally appropriate mixture, ideally gathered as green hay crop from a nearby species rich meadow or sourced from a reputable supplier.

9.1.6 Areas of species rich neutral grassland are also proposed, to account for the fact that the agricultural soils may prove difficult to return to the low nutrient status required by lowland meadow, but also to enable establishment of a variety of sward types and management regimes that will widen the range of species that the area can support. On the south sides of the substations the grassland is proposed to be stony and dry, primarily for the benefit of invertebrate species and basking reptiles. West of the substations it is proposed to be tussocky with scrub, for the benefit of birds, small mammals, reptiles and amphibians.

9.1.7 North of the proposed substations, fruit and nut orchard trees will be planted in the neutral grassland. The species selection, spacing and management will be as for the S41 habitat traditional orchard, utilising local heritage varieties where possible (such as those identified by the East of England Apples and Orchard Project or by other locally based orchard groups).

9.1.8 Woodland creation is necessary to meet landscape screening requirements (see Section 2 of this OLEMP) and will mainly comprise locally appropriate broadleaved species. It will serve to link and/ or fortify the existing habitat network thereby also assisting toward maintenance and enhancement of the green infrastructure network, Woodland boundaries will in some locations comprise hedgerow species and be maintained as such, for the benefit of a wider range of species than would be supported by woodland alone, in addition to added screening benefit.

9.1.9 At least two ponds may be required as part of the site drainage scheme, with a further two (required for construction drainage) being retained in addition to this, and wetland areas/ temporary pools also created. All pond creation is considered to be ecological enhancement, since no ponds are directly impacted by the scheme. The ponds at the OnSS will be designed so as to be of high ecological value, with varying depths, scalloped margins and areas with a wide draw down zone. They will be potentially suitable for use by a wide range of species including invertebrates, amphibians, reptiles, mammals and birds. Planting up of ponds with locally appropriate species is not initially proposed, as wetland habitats typically vegetate naturally within a relatively short

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	period of time; this also represents the most biosecure method, minimizing the risk of importing non-native species or disease. 9.1.10 It is also proposed to install a range of bird boxes (including boxes for barn owl Tyto alba and kestrel Falco tinnunculus, as well as boxes for small passerine species) on retained trees, earth banks for invertebrates, refugia for reptiles, amphibians and small mammals. 9.1.11 Reinstated, created and/ or retained habitats will be subject to an initial aftercare period of up to five years following reinstatement/ creation, to be extended (if required) if establishment is not deemed to have been successful. The methods of aftercare during the establishment period will be agreed in the Final LEMP and subject to the results of monitoring but are likely to include the management of undesirable weeds. Longer term ecological monitoring and management is dealt with separately in Section 9 of this document. 9.1.12 Reinstatement and landscape planting aftercare would be the responsibility of the applicant or its appointed contractors and would only be undertaken by suitably experienced contractors.	
217	10.1.1 The purpose of the ECOW is to provide ecological advice and monitor compliance. The ECOW shall ensure that biodiversity is protected and impacts either avoided or minimised as described in the Final LEMP and any EPSLs (if required). The ECOW role will be retained throughout the construction period (and any subsequent reinstatement works).	Schedule 2 Requirement 12 (Requirement 14)
218	10.2.1 In all cases monitoring shall be against defined aims and objectives which shall be included in the Final LEMP. 10.2.2 In the first instance, it is anticipated that aftercare monitoring to ensure establishment of reinstated habitats and other mitigation/ compensation/ enhancement habitats will be undertaken in years 1-5 (to coincide with the aftercare and implementation period). Further monitoring and management away from the OnSS would only be required if reinstated habitats failed to establish and would be subject to approval of the final LEMP.	Schedule 2 Requirement 12 (Requirement 14)
219	10.2.3 All habitats created as part of ecological compensation or enhancement, will be subject to long term monitoring and management to ensure that aims and objectives are met. This will be for a minimum period of 30 years, which also meets the requirements of the Statutory Metric, and at a frequency to be included in the final LEMP. A detailed post construction monitoring and management plan will be prepared, the full details will be included in the Final LEMP.	Schedule 2 Requirement 12
220	10.2.4 In the event that offsite mitigation/ compensation measures are required for the purpose of BNG or additional measures are required for protected species, these shall be monitored against defined aims and objectives which shall be included in the Final LEMP.	Schedule 2 Requirement 12

Table 3.12 Volume 9, Report 25: Outline Public Access Management Plan (OPAMP)

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ID	**Mitigation Measure Commitment**	**Secured by?**
221	During construction, temporary disruption to any PRoW will be managed and durations of disruption will be kept to a minimum. Temporary management measures would include: Appropriately fenced (unmanned) crossing points; Manned crossing points; Temporary closures with diversions; and Temporary closures without diversions.	Schedule 2 Requirement 9

FIVE ESTUARIES
OFFSHORE WIND FARM

PHONE 0333 880 5306
EMAIL fiveestuaries@rwe.com
WEBSITE www.fiveestuaries.co.uk
ADDRESS Five Estuaries Offshore Wind Farm Ltd
Windmill Hill Business Park
Whitehill Way, Swindon, SN5 6PB
COMPANY NO Registered in England and Wales
company number 12292474