

MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Measures to minimise disturbance to marine mammals and rafting birds from vessels

Deadline: Deadline 2 September 2024
5 June 2025

MOR001-FLO-CON-ENV-RPT-0128
MRCNS-J3303-RPS-10081

PINS Reference: EN020028
APFP Regulations: 5(2)(a)
Document reference: J16/F02

Document status					
Version	Purpose of document	Approved by	Date	Approved by	Date
F01	For issue	AS	September 2024	IM	September 2024
F02	Deadline 2	HK	June 2025	IM	June 2025

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Glossary

Term	Meaning
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Commitment	This term is used interchangeably with mitigation and enhancement measures. The purpose of commitments is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects. Primary and tertiary commitments are taken into account and embedded within the assessment set out in the ES.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Generation Assets	The generation assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include the offshore wind turbines, inter-array cables, offshore substation platforms and platform link (interconnector) cables to connect offshore substations.
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for to apply for 'deemed marine licences' in English waters as part of the development consent process.
Mean Low Water Springs	The height of mean low water during spring tides in a year.
Mitigation measures	This term is used interchangeably with Commitments. The purpose of such measures is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects.
Morecambe Offshore Windfarm: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morecambe Offshore Windfarm to the National Grid.
Morecambe OWL	Morecambe Offshore Windfarm Limited is a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) (Cobra) and Flotation Energy Ltd.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of reading.
Morgan Offshore Wind Project: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morgan Offshore Wind Project to the National Grid.
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy investments Ltd. and Energie Baden-Württemberg AG (EnBW).
Offshore export cables	The cables which would bring electricity from the Generation Assets to the landfall.
Offshore Order Limits	See Transmission Assets Order Limits: Offshore (below).

Term	Meaning
Planning Inspectorate	The agency responsible for operating the planning process for applications for development consent under the Planning Act 2008.
Special Protection Areas	A site designation specified in the Conservation of Habitats and Species Regulations 2017, classified for rare and vulnerable birds, and for regularly occurring migratory species. Special Protection Areas contribute to the national site network.
Statutory consultee	Organisations that are required to be consulted by an applicant pursuant to section 42 of the Planning Act 2008 in relation to an application for development consent. Not all consultees will be statutory consultees (see non-statutory consultee definition).
Transmission Assets Order Limits: Offshore	The area within which all components of the Transmission Assets seaward of Mean Low Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning. Also referred to in this report as the Offshore Order Limits, for ease of reading.

Acronyms

Acronym	Meaning
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
CoT	Commitment
DCO	Development Consent Order
DML	Deemed Marine Licence
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ES	Environmental Statement
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
MMMP	Marine Mammal Mitigation Protocol
O&M	Operation and Maintenance
SPA	Special Protection Area
VMP	Vessel Management Plan
VTMP	Vessel Traffic Management Plan

Units

Unit	Description
%	Percentage

1 Measures to minimise disturbance to marine mammals and rafting birds from vessels

1.1 Background

1.1.1 Introduction

1.1.1.1 This document forms the 'Outline measures to minimise disturbance to marine mammals and rafting birds from vessels' prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as 'the Transmission Assets').

1.1.2 Project overview

1.1.2.1 Morgan Offshore Wind Limited (Morgan OWL), a joint venture between bp Alternative Energy Investments Ltd. (bp) and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project. The Morgan Offshore Wind Project is a proposed wind farm in the east Irish Sea.

1.1.2.2 Morecambe Offshore Windfarm Ltd (Morecambe OWL), a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra Instalaciones y Servicios S.A. group company) (Cobra) and Flotation Energy Ltd., is developing the Morecambe Offshore Windfarm, also located in the east Irish Sea.

1.1.2.3 Morgan OWL and Morecambe OWL (the Applicants) are jointly seeking a single consent for their electrically separate transmission assets comprising aligned offshore export cable corridors to landfall and aligned onshore export cable corridors to separate onshore substations, and onward connection to the National Grid at Penwortham, Lancashire.

1.1.2.4 The purpose of the Transmission Assets is to connect the Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets (referred to collectively as the 'Generation Assets') to the National Grid. The key components of the Transmission Assets include offshore, landfall and onshore elements. Details of the activities and infrastructure associated with the Transmission Assets are set out in Volume 1, Chapter 3: Project Description of the Environmental Statement (document reference [AS-024F1.3/F03](#)).

1.1.3 Purpose of the outline measures to minimise disturbance to marine mammals and rafting birds from vessels

1.1.3.1 This document sets out ‘Outline measures to minimise disturbance to marine mammals and rafting birds from vessels’ and has been developed for offshore elements of Transmission Assets, seawards of Mean High Water Springs (MHWS). In summary, the offshore elements of Transmission Assets will comprise of up to six offshore export cables:

- four for the Morgan Offshore Wind Project: Transmission Assets; and
- two for the Morecambe Offshore Windfarm: Transmission Assets.

1.1.3.2 This document is presented separately to the outline plans it refers to, as it will form part of the Offshore Environmental Management Plans (EMPs) (see section 1.2), an outline for which is not part of the DCO Application. These measures are required as they are embedded mitigation referenced in the EIA and ISAA (document reference E2.1 – E2.3).

1.1.3.3 This ‘Outline measures to minimise disturbance to marine mammals and rafting birds’ references the following documents.

- Volume 1, Chapter 3: Project description of the ES (document reference [AS-024F1.3/F03](#)).
- Volume 1, Annex 5.3: Commitments register of the ES (document reference [F1.5.3/F03AS-030](#)).
- Volume 2, Chapter 4: Marine mammals of the ES (document reference F2.4).
- Volume 2, Chapter 5: Offshore ornithology of the ES (document reference F2.5).
- Outline Marine mammal mitigation protocol (MMMP) (document reference J18/[F02](#)).
- Outline Vessel traffic management plan (VTMP) (document reference J21).

1.1.4 Structure of this document

1.1.4.1 This document is set out as follows.

- **Section 1.1.4.2** presents an overview of the Transmission Assets and the purpose of the Outline measures to minimise disturbance to marine mammals and rafting birds.
- **Section 1.2** presents the means in which this plan will be implemented.
- **Section 1.3** presents a summary of the consultation comments raised relating to marine mammals and offshore ornithology and disturbance from vessel transits.
- **Section 1.4** presents an introduction to the proposed measures.

- **Section 1.5** sets out the proposed measures applicable to marine wildlife.
- **Section 1.6** sets out the proposed measures applicable to rafting birds.
- **Section 1.7** details the exclusions to the proposed measures.
- **Section 1.8** presents the references.

1.2 Implementation

1.2.1.1 This document which sets out the Outline measures to minimise disturbance to marine mammals and rafting birds will form an annex to the Offshore EMPs. Following the granting of consent for the Transmission Assets, detailed [Offshore](#) EMPs which will include detail on the disturbance to marine mammals and rafting birds will be prepared on behalf of Morgan OWL and/or Morecambe OWL prior to commencement of the relevant stage of works. The detailed [Offshore](#) EMPs will require approval by the Marine Management Organisation (MMO) following consultation with relevant stakeholders. The Applicants and all appointed contractors will be responsible for the implementation of the detailed [Offshore](#) EMPs and measures to minimise disturbance to marine mammals and rafting birds. The Applicants have committed to implementation of these measures via the following commitment, CoT65 (see Volume 1, Annex 5.3: Commitments register, document reference [F1.5.3/F03AS-030](#)), and is secured by inclusion of condition 18(1)(f)(vi) of the draft Development Consent Order (DCO) Schedules 14 and 15 (document reference C1). Below sets out the condition wording for condition 18(1)(f)(vi):

18.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA and UKHO as appropriate—

(f) an offshore environmental management plan covering the period of construction and operation to include details of—

(vi) measures to minimise disturbance to marine mammals and rafting birds from vessels; and

1.2.1.2 The Transmission Assets may adopt a staged approach to the approval of DCO requirements. This will enable requirements to be approved in part or in whole, prior to the commencement of the relevant stage of works in accordance with whether staged approach is to be taken to the delivery of the each of the offshore wind farms.

1.2.1.3 For offshore elements seaward of Mean High Water Springs, this approach will be governed by the inclusion of condition 12 of Schedules 14 and 15 of the draft DCO, which requires a written scheme detailing the stages of construction for Project A or Project B to be submitted for approval by the MMO prior to the commencement of the licensed activities.

1.2.1.4 Pre-construction and/or site preparation activities may be undertaken prior to the commencement of construction. These activities would comprise the following, in accordance with the definition of ‘offshore site preparation works’ as defined by the draft DCO and deemed marine licences (document reference C1) and Volume 1, Chapter 3: Project Description of the ES (document reference [F1.3/F03AS-024](#)):

- Pre-construction geophysical, geotechnical surveys, unexploded ordnance (UXO) surveys (including Unexploded Ordnance (UXO) investigation); and
- Site preparation activities:
 - ~~Unexploded Ordnance (UXO)~~ clearance (low order techniques, where possible);
 - Boulder removal/placement and out of service cable removal;
 - Sandwave clearance and removal, including:
 - Dredging and pre-clearance activities;
 - Seabed excavation; and
 - Pre-lay grapnel run (PLGR).

1.3 Consultation

1.3.1.1 A summary of the key items raised on the consultations to date, specifically relating to measures to minimise disturbance to marine mammals and birds by vessel activity, can be found in **Table 1.1**. It should however be noted that formal responses are provided for all consultation responses received and can be accessed in the Consultation Report (document reference E1).

Table 1.1: Summary of key consultation comments raised during the consultation activities for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, relating to measures to minimise disturbance to marine mammals and birds from transiting vessels

Date	Consultee and type of response	Comment raised	Response to comment raised and/or where considered in this document
December 2022	Scoping Opinion Planning Inspectorate	Vessel Management Plan should incorporate measures to avoid disturbance and/or collision to marine mammals where appropriate as well as measures to minimise disturbance to rafting seabirds.	Within the ES, a number of measures have been adopted as part of the Transmission Assets to reduce the potential for impacts on offshore ornithology and marine mammals. These measures are detailed in Volume 2, Chapter 4: Marine mammals of the ES (document reference F2.4) and Volume 2, Chapter 5: Offshore ornithology of the ES (document reference F2.5) and the following outline management plans act to secure the delivery of these measures. • An Outline Vessel Traffic Management Plan (VTMP) (CoT69 and document reference J21). • An Outline Marine Mammal Mitigation Protocol (MMMP) (CoT64 and document reference J18). • Pre-construction plans (Offshore EMPs and Marine pollution contingency plans (MPCP) CoT65). Further details are provided in sections 1.5 and 1.6 of this document. This document details the Outline measures to minimise disturbance to marine mammals and rafting birds from transiting vessels and will form an annex to the Offshore EMPs which are secured in the deemed Marine Licences (condition 18(1)(f)(vi) of the draft Development Consent Order (DCO) Schedules 14 and 15 (document reference C1)).
November 2023	Statutory Consultation Natural England	Efforts should be made, as a matter of best practice, to minimise and mitigate disturbance to the receptor species of Liverpool Bay SPA. Disturbance should be minimised through the implementation of a Vessel Management Plan (VMP), a draft version of which should be presented as part of the DCO/dML application.	Commitments regarding minimising vessel disturbance include measures to address disturbance specifically in Liverpool Bay/Bae Lerpwl SPA (CoT111) (section 1.1.1.1) and development of Offshore EMPs (CoT65) (section 1.6.1.7). The Outline VTMP (CoT69 and document reference J21) has been developed to detail the plans to minimise vessel related disturbance and is submitted as part of the DCO Application.

Date	Consultee and type of response	Comment raised	Response to comment raised and/or where considered in this document
			This document details the Outline measures to minimise disturbance to marine mammals and birds from transiting vessels.
November 2023	Statutory Consultation Natural England	Although the impacts of this project on the designated features of Liverpool Bay SPA are not likely to cause AEoI alone, given the pressure on SPA species across the site, efforts should still be made as a matter of best practice to minimise and mitigate disturbance to the receptor species. Disturbance should be minimised through the implementation of a Vessel Management Plan (VMP), a draft version of which should be presented as part of the DCO/dML application. As part of the VMP, the Applicant should also consider restricting activities which have the potential to disturb sensitive receptor species to months when those species are unlikely to be present, thus avoiding the potential for impacts entirely. Natural England has produced a best practice protocol for vessel movements in red-throated diver SPAs, and we recommend this is incorporated in the VMP.	This document details the Outline measures to minimise disturbance to marine mammals and rafting birds from transiting vessels and will form an annex to the Offshore EMPs which are secured in the deemed Marine Licences. Since the Preliminary Environmental Information Report, the Morgan Offshore Booster Station has been removed from the Project Design. In addition, the Offshore Substation Platforms have been removed from the Transmission Assets DCO Application (they remain within the Applications for their respective Generation Assets DCOs). Commitments regarding minimising vessel disturbance include measures to address disturbance specifically in Liverpool Bay/Bae Lerpwl SPA (CoT111) (section 1.1.1.1) and development of Offshore EMPs (CoT65) (section 1.6.1.7) <u>and are secured in condition 18(1)(f) of the draft Development Consent Order (DCO) Schedules 14 and 15 (document reference REP1-008C1)</u>. The Outline VTMP (CoT69 and document reference J21) has been developed to detail the plans to minimise vessel related disturbance and is submitted as part of the DCO Application (section 1.5.1.3).
November 2023	Statutory Consultation NRW Advisory	We would also suggest that the Applicants give consideration to timing restrictions on construction activities, such that the potential disturbing activities in different areas (offshore, cable land fall etc) avoid key periods when sensitive features of the Liverpool Bay/Bae Lerpwl SPA are present in key numbers.	This document details the Liverpool Bay/Bae Lerpwl SPA Outline measures to minimise disturbance to the sensitive features of from transiting vessels. Commitments regarding minimising vessel disturbance include measures to address disturbance specifically in Liverpool Bay/Bae Lerpwl SPA (CoT111) (section 1.1.1.1) and development of Offshore EMPs (CoT65) (section 1.6.1.7). Commitments regarding timing restrictions on construction activities, including in the Liverpool Bay/Bae Lerpwl SPA, are addressed in section 1.1.1.1 (CoT110 and CoT111) <u>and secured in condition 18(1)(f)</u>

Date	Consultee and type of response	Comment raised	Response to comment raised and/or where considered in this document
			of the draft Development Consent Order (DCO) Schedules 14 and 15 (document reference C1).
January 2025	Relevant Representation Natural England	The principal issue in question; Assessment and conclusion of no adverse effect on site integrity for the red-throated diver and common scoter features of Liverpool Bay SPA. The brief concern held by Natural England which will be reported on in full in Written Representation; Natural England do not agree that an adverse effect on site integrity for the red-throated diver and common scoter features of Liverpool Bay SPA can be ruled out due to the displacement and disturbance impacts of the Project in combination with other projects during the sensitive winter period. What needs to change, or be included, or amended so as to overcome the disagreement; The Project's impact can be removed by the Applicant committing to a full restriction on construction activity within the wintering months of November-March inclusive. Likelihood of the concern being addressed during Examination; Potential resolution - This is subject to the Applicant bringing forward an appropriate seasonal restriction to address the potential impacts to the species. Summary of key issues Natural England do not agree with the conclusion that AEoI for the common scoter feature of Liverpool Bay SPA can be ruled out due to the displacement and disturbance impacts of the Project alone during the construction phase. As the cable route passes through an important area for this species where relatively high densities are found and given the	This document details the Outline measures to minimise disturbance to the sensitive features of the Liverpool Bay/Bae Lerpwl SPA (as designated in 2010) and including a 2 km buffer) from transiting vessels. Commitments regarding minimising vessel disturbance include measures to address disturbance specifically in Liverpool Bay/Bae Lerpwl SPA (CoT111) (section 1.1.1.1) and development of Offshore EMPs (CoT65) (section 1.6.1.7). Commitments regarding timing restrictions on construction activities, including in the Liverpool Bay/Bae Lerpwl SPA, are addressed in section 1.1.1.1 and 1.6.1.10 (CoT110, CoT111, and CoT130) and secured in condition 18(1)(f) of the draft Development Consent Order (DCO) Schedules 14 and 15 (document reference REP1-008C4).

Date	Consultee and type of response	Comment raised	Response to comment raised and/or where considered in this document
		target to maintain the distribution of the feature and the availability of supporting habitat, preventing further deterioration from its current level, every effort should be made to minimise impacts within the SPA and a 2km buffer around it.	
	Relevant Representation Natural England	Low-order UXO clearance should now be the default clearance method, with high-order detonations restricted to extraordinary circumstances and also provide updated advice regarding mitigation of UXO clearance activities. Natural England advises that the Applicant should review the content of these documents and ensure their assessment and mitigation measures are aligned. Natural England will provide further, more detailed advice in due course.	The Applicants have committed to using low order techniques, where possible, as the primary mitigation measure alongside other measures (CoT64 document reference J18). The Applicants have removed high order UXO detonation from the draft DCO (including the DMLs) at Deadline 1 (REP1-008). Should high order UXO clearance be required, this would be applied for under a separate marine licence. The updates to the draft DCO include low order UXO clearance only within the list of licensed activities at Part 1, paragraph 2 of Schedules 14 and 15 of the draft DCO and Condition 20 of the deemed marine licences at Schedules 14 and 15 (REP1-008).
January 2025	Relevant Representation Marine Management Organisation	The MMO does not agree with the approach of the Applicant to include UXO clearance within the DML. The MMO's general position is that UXO activities are sought within a separate marine licence due to the nature of the impacts. The MMO is content for the UXO investigation activities to be included and recommend this is a clearly identifiable activity within the DML. However, the MMO is reviewing the DML further on a without prejudice position if the Secretary of State (SoS) is minded to include UXO clearances. The DML should be updated to ensure these activities are set out as a separate activity taking into account activities 10-13 under section 66(1) (licensable marine activities) of the 2009 Act. This would also include any lift and shift opportunities. The number of UXOs to be fully assessed at this stage and the maximum number to be included within	The updates to the draft DCO also include amendments to make clear that no high order UXO clearance is permitted and to specify the maximum number of low order UXO clearances authorised by each deemed marine licence. This has been reflected in an update to the Outline MMMP, submitted at Deadline 2 (J18/F02), as detailed in section 1.5. In addition, no clearance of UXO will be undertaken within the Liverpool Bay/Bae Lerpwl SPA between November and March (inclusive), as detailed in section 1.6.1.10 (CoT130).

Date	Consultee and type of response	Comment raised	Response to comment raised and/or where considered in this document
		the DML. The MMO will review the documents further and provide comments in due course.	

1.4 Introduction to the proposed measures

1.4.1.1 Vessel activity associated with the construction and operation and maintenance of the Transmission Assets has the potential to increase vessel movements. An increase in vessel movements has the potential to disturb and/or displace rafting birds and could lead to an increase in interactions between marine mammals and vessels during offshore construction and operations and maintenance (further details are provided in Volume 2, Chapter 5: Offshore ornithology of the ES, document reference F2.5 and Volume 2, Chapter 4: Marine mammals of the ES, document reference F2.4, respectively).

1.4.1.2 During the concurrent construction scenario, which represents the maximum design scenario for vessel movements during construction:

- the maximum number of vessels on site at any one time is up to a total of 30 construction vessels (which include tug/anchor handling, cable lay installation and support vessels, guard vessels, survey, crew transfer vessels and cable protection installation vessels):
 - 19 vessels for the Morgan Offshore Wind Project: Transmission Assets; and
 - 11 vessels for the Morecambe Offshore Windfarm: Transmission Assets.
- This will result in a maximum of 286 vessel movements during the construction period, representing a 2.9% increase on current traffic levels:
 - 226 for the Morgan Offshore Wind Project: Transmission Assets; and
 - 60 for the Morecambe Offshore Windfarm: Transmission Assets.

1.4.1.3 During the operation and maintenance phase:

- there will be a maximum of 14 vessels on site at any one time:
 - 8 for the Morgan Offshore Wind Project: Transmission Assets; and
 - 6 for the Morecambe Offshore Windfarm: Transmission Assets.
- This will result in up to 77 vessel movements per year:
 - 52 for the Morgan Offshore Wind Project: Transmission Assets; and
 - 25 for the Morecambe Offshore Windfarm: Transmission Assets.

1.4.1.4 The measures to minimise disturbance to marine mammals and rafting birds from vessels described herein will be secured within the Schedules 14 and 15 dMLs in the Draft DCO/DMLs (document reference C1) as detailed in **section 1.2**. By adopting these measures as part of the Transmission Assets, the effect of vessel disturbance and displacement on marine mammal and rafting birds during construction

and operations and maintenance has been assessed as having no more than a minor adverse significance, which is not significant in EIA terms (see Volume 2, Chapter 4: Marine mammals of the ES, document reference F2.4) and Volume 2, Chapter 5: Offshore ornithology of the ES, document reference F2.5).

1.4.1.5 The displacement impact of vessel transit activities on marine mammals and rafting birds has been assessed qualitatively due to their local and temporary nature (see Volume 2, Chapter 4: Marine mammals of the ES, document reference F2.4) and Volume 2, Chapter 5: Offshore ornithology of the ES, document reference F2.5).

1.4.1.6 Measures are proposed to minimise the risk of disturbance or displacement to marine wildlife from vessels during the construction and operation and maintenance phases of the Transmission Assets. Several measures will apply to both marine mammals and rafting birds (plus other marine wildlife like basking shark; see section 1.5), while other measures will be specific to the reduction of risk of disturbance to rafting birds (section 1.6).

1.4.1.7 This document should also be read in conjunction with:

- the Outline MMMP (CoT64 and document reference [J18 J18/F02](#)) which will secure the mitigation measures for marine mammals, and
- the Outline VTMP (CoT69 and document reference J21).

1.5 Proposed measures applicable to marine mammals and basking shark

1.5.1.1 The measures described in **section 1.5** apply to all marine locations directly related to the construction and operations and maintenance activities, unless otherwise specified.

1.5.1.2 While the focus of this document is specific to measure that minimise disturbance to marine mammals and rafting birds, the actions proposed in this section will also benefit basking sharks.

1.5.1.3 VTMP(s) (one for Morgan OWL and one for Morecambe OWL) will be developed prior to the commencement of construction in line with legislation, guidance and industry best practice which will:

- determine vessel routing to and from construction areas and ports;
- include vessel standards and a code of conduct for vessel operators; and
- minimise, as far as reasonably practicable, encounters with marine mammals and basking sharks.

1.5.1.4 These plans will be developed in accordance with the Outline VTMP (CoT69; Volume 1, Annex 5.3: Commitments register of the ES [\(AS-030F1.5.3/F03\)](#)).

[1.5.1.5](#) Detailed MMMPs will be developed and implemented in accordance with the Outline MMMP [\(J18/F02\)](#), to reduce the risk of injury to marine mammals [\(CoT64: Volume1, Annex 5.3: Commitments register of the](#)

ES (F1.5.3/F03): The Detailed MMMP(s) will include measures to apply in advance of UXO clearance. The Detailed MMMP(s) will include for the use of low order techniques, where possible, as the primary mitigation measure alongside other secondary measures, where required.

1.5.1.6 The detailed MMMP(s) will require the implementation of a mitigation hierarchy with regard to Unexploded Ordnance (UXO) clearance as follows:

- Avoid UXO; and
- Clear UXO with low order techniques.

1.5.1.7 The Applicants have committed to using low order techniques where possible, as the primary mitigation measure alongside other measures (CoT64 document reference J18). Low order techniques or avoidance of confirmed UXO are is not always possible and are is dependent upon the individual circumstances surrounding each UXO. Should high order UXO techniques be required, a separate marine licence will be applied for and will include consideration of secondary mitigation measures such as Noise Abatement Systems (NAS).

1.5.1.8 The Applicants will develop and adhere to Offshore EMPs with measures to minimise disturbance to marine wildlife, requiring them to:

- not deliberately approach marine mammals as a minimum; and
- avoid abrupt changes in course or speed should marine mammals approach the vessel to bow-ride, where appropriate and possible, taking into account all technical and safety considerations.

1.6 Proposed measures specific to rafting birds

1.6.1.1 The Transmission Assets are located in the Irish Sea, and the offshore works overlap the geographical extent of the Liverpool Bay SPA. Within the Liverpool Bay SPA, the highest density areas of *Melanitta nigra* common scoter occur off the:

- English coast at Blackpool, Lancashire and off the Welsh coast; and
- between Colwyn Bay and the Dee Estuary.

1.6.1.2 The highest densities areas of *Gavia stellata* red-throated diver occur:

- off the Lancashire coast at Formby;
- off the coast of the Wirral;
- offshore of Llandulas on the North Wales coast; and
- off the coast of Penmaenmawr, North Wales.

1.6.1.3 Further details are the distribution of common scoter and red-throated diver ~~RTD~~ are provided in Volume 2, Chapter 5: Offshore ornithology of the ES, document reference F2.5.

1.6.1.4 The offshore works overlaps the high density areas of common scoter and red-throated diver, and the Liverpool Bay SPA/Bae Lerpwl SPA

(HiDef Aerial Surveying Limited, 2023) (see Volume 2, Figures: Figure 5.6 to and 5.9; document reference: [AS-037F2.10/F02](#)). Therefore, measures specific to minimising disturbance to rafting birds, as described below, will apply within Liverpool Bay SPA.

1.6.1.5

In addition to the measures outlined in Section 1.5, measures applicable to rafting birds (specifically common scoter and red-throated diver as features of the Liverpool Bay/Bae Lerpwl SPA) includes a timing restriction will be applied during on all offshore export cable installation activities between November and March (inclusive) within the original boundary of the Liverpool Bay/Bae Lerpwl SPA (as designated in 2010) and including a 2 km buffer, unless otherwise agreed with the MMO, in consultation with Natural England (CoT111; Volume 1, Annex 5.3: Commitments register of the ES (F1.5.3/F03AS-030)). ~~transiting to and from port and works areas, and within the offshore export cable corridor. The key overwintering period during which red-throated diver and common scoter may interface with the Transmission Assets is November to February (inclusive). Therefore, construction activities associated with the offshore cable pull in for the Transmission Assets would be restricted to completing one cable pull in (a maximum of five weeks) per wintering season (i.e. during the months of November—February), unless otherwise agreed with the MMO, in consultation with Natural England. The offshore cable pull in is likely to begin before these months, but may continue into November and beyond; should this occur within the area specified above (i.e. original boundary of Liverpool Bay SPA, including a 2 km buffer), this would be agreed with the MMO in consultation with Natural England. This will be undertaken in accordance with the Outline Offshore Cable Specification and Installation Plan (CoT110; Volume 1, Annex 5.3: Commitments register of the ES (F1.5.3/F03AS-030)).~~

~~The total number of vessels for both the Morgan Offshore Wind Project and Morecambe Offshore Windfarm Ltd actively working within the Liverpool Bay/Bae Lerpwl SPA during construction or during operation and maintenance phase will be limited to a maximum of five vessels at any one time in the wintering period, i.e. between November and February (inclusive).~~

1.6.1.6

This will be included within the Offshore Environmental Management Plan(s) (CoT111; Volume 1, Annex 5.3: Commitments register of the ES [\(F1.5.3/F03\)](#)).

1.6.1.7

The following potential measures will be discussed and agreed with the MMO in consultation with Natural England, through finalisation of the Offshore Environmental Management Plan (EMP).

- It is proposed that key vessels will use indicative vessel transit corridors, as detailed in the Outline VTMP (document reference J21). Increased vessel traffic during construction, and operations and maintenance may potentially lead to disturbance and displacement of common scoter and red-throated diver species within Liverpool Bay/Bae Lerpwl SPA and the Transmission Assets as assessed and stated in Volume 2, Chapter 5: Offshore ornithology of the ES (document reference F2.5). However, no

significant effects are predicted due to this disturbance, as noted in **section 1.4**.

- Where it is necessary for cable laying vessels to go outside of established navigational routes during transit to/from port and working areas, routes will be pre-selected to avoid locations where birds are known to aggregate in accordance with the measures described in **section 1.4**. Vessel operators will be made aware of bird sensitivities in the Liverpool Bay/Bae Lerpwl SPA and visible aggregations of rafting birds will be actively avoided, within the limitations of vessel safety and manoeuvrability. Routes will not be pre-selected to avoid locations of known bird aggregations for vessels actively engaged in trenchless techniques at the landfall, however clearly visible aggregations of rafting birds will be avoided by vessels in real-time as operations allow and where safe to do so.
- All vessels associated with the Transmission Assets will use an Automatic Identification System (AIS) which broadcasts the location of the vessel and is monitored by the Transmission Assets' Marine Co-ordination Centre.

1.6.1.8 Additionally, the following measures will be applied, wherever possible (e.g. see Exclusions section 1.7), during transit through Liverpool Bay/Bae Lerpwl SPA and out to 2 km from the Liverpool Bay/Bae Lerpwl SPA boundary to and from port and works areas, in line with Natural England's Best Practice Protocol for Vessels in Red Throated Diver SPAs guidance on selecting routes that avoid known aggregations of birds (Morgan Offshore Wind Generation Assets (2025)):

- maintaining direct transit routes (to minimise transit distances through areas used by divers); and
- avoidance of over-revving of engines (to minimise noise disturbance).

1.6.1.9 Specific measures to reduce disturbance to rafting birds (specifically common scoter and red-throated diver as features of the Liverpool Bay/Bae Lerpwl SPA) will also be implemented as follows:

- the over-wintering period when red-throated diver and common scoter will most likely be present in highest numbers in the areas of the Transmission Assets is from 1 November to 31 March; therefore, offshore export cable installation will not take place from 1 November to 31 March (inclusive) within the Liverpool Bay/Bae Lerpwl SPA (as designated in 2010) and including a 2 km buffer to minimise disturbance to ornithological receptors.

1.6.1.10 Lastly, no clearance of UXO will be undertaken within Liverpool Bay/Bae Lerpwl SPA between 1 November to 31 March (inclusive) (CoT130; Volume 1, Annex 5.3: Commitments register of the ES (F1.5.3/F03)).

1.7 Exclusions

- 1.7.1.1 Unplanned situations may arise where this plan will not apply. Such scenarios may include but are not limited to:
- operational emergencies, such as an unwell crew member, critical mechanical failure or inclement weather, where the most direct route back to port is required.
- 1.7.1.2 In such cases, the MMO would be made aware of the situation as soon as practicable.
- 1.7.1.3 Nothing in this document will limit the key necessity for the safety of navigation and marine operations to be maintained, and for risks to be reduced to As Low As Reasonably Practicable (ALARP). It is noted that the Master of a vessel (the person who controls the vessel) has the overriding authority and responsibility to make decisions and take actions they deem necessary for the health and safety interests of those on board, the environment, pollution prevention and the ship itself. The Vessel Master is responsible for safe navigation; all operational decisions on board vessels are subject to the Masters' discretion.

1.8 References

Defra, 2023. Marine and coastal wildlife code: advice for visitors - GOV.UK (www.gov.uk). Available: <https://www.gov.uk/government/publications/marine-and-coastal-wildlife-code/marine-and-coastal-wildlife-code-advice-for-visitors>. Accessed January 2024.

HiDef Aerial Surveying Limited (2023) Densities of qualifying species within Liverpool Bay/ Bae Lerpwl SPA: 2015 to 2020. Natural England Commissioned Report 440, Natural England. Available: <https://publications.naturalengland.org.uk/file/6315267005874176>. Accessed March 2024.

[Morgan Offshore Wind Generation Assets \(2025\) Appendix M5 - Natural England's Best Practice Protocol for Vessels in Red Throated Diver SPAs. Available: EN010136-000769-EN010136 497410 Morgan Offshore Wind Generation Assets Appendix M5 - Natural England's Best Practice Protocol for Vessels in Red Throated Diver SPAs - Deadline 5.pdf. Accessed May 2025.](#)

NatureScot, 2023 Scottish Marine Wildlife Watching Code. Available: <https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code>. Accessed January 2024.