

MONA OFFSHORE WIND PROJECT

Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels [F01](#) [F02 \(tracked\)](#)

[Deadline: 3](#)

[Application Reference: EN010137](#)

Document Number: MOCNS-J3303-RPS-10154

Document Reference: J17 F02

[30 September](#) ~~February~~ 2024

F01_ [F02](#)



Image of an offshore wind farm

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Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	Application	RPS	Mona Offshore Wind Ltd	Mona Offshore Wind Ltd	Feb 2024
F02	Submission at D3	RPS	Mona Offshore Wind Ltd	Mona Offshore Wind Ltd	30 Sep 2024

Prepared by:

Prepared for:

RPS

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Glossary

Term	Meaning
Applicant	Mona Offshore Wind Limited.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Environmental Statement	The document presenting the results of the Environmental Impact Assessment (EIA) process for the Mona Offshore Wind Project.
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 a DCO to apply for 'deemed marine licences' as part of the DCO process. In addition, licensable activities within 12nm of the Welsh coast require a separate marine licence from Natural Resource Wales (NRW).
Mona Array Area	The area within which the wind turbines, foundations, inter-array cables, interconnector cables, offshore export cables and offshore substation platforms (OSPs) forming part of the Mona Offshore Wind Project will be located.
Mona Offshore Cable Corridor and Access Areas	The corridor located between the Mona Array Area and the landfall up to Mean High Water Springs (MHWS), in which the offshore export cables will be located and in which the intertidal access areas are located.
Mona Offshore Wind Project	The Mona Offshore Wind Project is comprised of both the generation assets and offshore and onshore transmission assets and associated activities.
Offshore Substation Platform (OSP)	The offshore substation platforms located within the Mona Array Area will transform the electricity generated by the wind turbines to a higher voltage allowing the power to be efficiently transmitted to shore.
Special Protection Area (SPA)	Special Protection Areas (SPAs) are sites classified under the EU Birds Directive (Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds) to protect rare or vulnerable birds (as listed in Annex I of the Directive), as well as regularly occurring migratory species.
Wind turbines	The wind turbine generators, including the tower, nacelle and rotor.

Acronyms

Acronym	Description
AIS	Automatic Identification System
ALARP	As Low As Reasonably Practicable
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EWG	Expert Working Group
HPAI	Highly Pathogenic Avian Influenza
JNCC	Joint Nature Conservation Committee
LSE	Likely Significant Effects

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Acronym	Description
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
NRW	Natural Resources Wales
OSP	Offshore Substation Platform
RSPB	The Royal Society for the Protection of Birds
SNCB	Statutory Nature Conservation Bodies
SPA	Special Protection Area
TCE	The Crown Estate
TWT	The Wetland Trust Wildlife Trusts
WiSe	The Wildlife Safe Scheme

Units

Unit	Description
km	Kilometres
km ²	Kilometres squared
nm	Nautical Miles

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

1.1 Introduction

1.1.1 ~~Introduction to the~~ Mona Offshore Wind Project

1.1.1.1 The Mona Offshore Wind Project is a joint venture of bp Alternative Energy Investments (hereafter referred to as bp) and Energie Baden-Württemberg AG (hereafter referred to as EnBW). The Mona Offshore Wind Project is a proposed offshore wind farm located in the east Irish Sea. As part of the Offshore Wind Leasing Round 4 by The Crown Estate (TCE) Mona Offshore Wind Limited (the Applicant) entered into Agreement for Lease in early 2023.

1.1.1.2 The Mona Array Area (i.e. the area within which the offshore wind turbines (up to 96) will be located) is 300 km² in area and is located 28.8 km (15.6 nm) from the north coast of Wales, 46.9 km (25.3 nm) from the northwest coast of England and 46.6 km (25.2 nm) from the Isle of Man (when measured from Mean High Water Springs (MHWS)). The Mona Array Area is located in Welsh offshore waters (beyond 12 nm from the Welsh coast).

1.1.2 Consultation

1.1.2.1 A summary of the main issues raised in the consultations to date, specifically relating to measures to minimise disturbance to marine mammals and [rafting](#) birds by transiting vessels, can be found in Table 1.1

Table 1.1: Summary of key consultations raised ~~during the consultation activities pre-~~ [application](#) for the Mona Offshore Wind Project relating to measures to minimise disturbance to marine mammals and [rafting](#) birds from transiting vessels.

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter document
February 2023	Offshore Ornithology Expert Working Group (EWG) 4 Attended by: Natural England, the Joint Nature Conservation Committee (JNCC), Natural Resources Wales (NRW), The Isle of Man Government , the Royal Society for the Protection of Birds (RSPB), The Wetland Trust Wildlife Trusts (TWT), Marine Management Organisation (MMO)	The fourth EWG meeting provided an update on the Highly Pathogenic Avian Influenza (HPAI), and discussed the results of the assessment for the Mona Offshore Cable Corridor on seabirds and divers, overview of the new conservation advice package for Liverpool Bay/ Bae Lerpwl Special Protected Protection Area (SPA), and the approach to Likely Significant Effects (LSE) screening. NRW/JNCC/Natural England suggested timing restrictions during cable laying across through the Liverpool Bay/ Bae Lerpwl SPA to avoid disturbance and displacement impacts on red-throated divers and common scoter.	Time restrictions on the works A timing restriction (1 November to 31 March) will be followed and implemented during applied to offshore export cable laying in the Liverpool Bay/ Bae Lerpwl SPA (See section 1.3). Cable-laying works in the Liverpool Bay/ Bae Lerpwl SPA will not take place between 1 November and 31 March to minimize (except where the exclusions detailed in Section 1.4 apply) to minimise disturbance to ornithological receptors, with the exception of the exclusions detailed in Section 1.4.

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Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter document
October 2023	Offshore Ornithology Expert Working Group EWG 6 Attended by: Natural England, JNCC, NRW, RSPB, TWT, Isle of Man Government, MMO, Niras	Updates to the Project Design Envelope, on which the assessment is based, were presented to the EWG (e.g. a reduction of the array area and the number of turbines). The EWG were was asked to agree whether up to eight vessel movements at the landfall could be exempt from the seasonal restriction on vessel movements in the Liverpool Bay/ Bae Lerpwl SPA.	Agreement was received from NRW (JNCC deferred to NRW) that vessel movement at the landfall to install the export cable would not be subject to seasonal restrictions.

1.1.3 Introduction to [Outline of the proposed measures](#)

- 1.1.3.1 Vessel traffic associated with the Mona Offshore Wind Project has the potential to lead to an increase in vessel movements within the Liverpool Bay/[Bae Lerpwl](#) ~~Special Protection Area (SPA)~~[SPA](#) which overlaps with the Mona Offshore Cable Corridor and Access Areas, as stated in Volume 2, Chapter 5: Offshore ornithology of the Environmental Statement (Document Reference F2.5). This increase in vessel movements could lead to an increase in interactions between vessels and marine wildlife (such as marine mammals and birds) during the offshore construction, operation and maintenance phases. Vessel movements would be increased by up to 2,199 return trips during the construction phase and up to 849 return trips each year within the operations and maintenance phase of the Mona Offshore Wind Project.
- 1.1.3.2 The effect of vessel disturbance on marine mammal and offshore ornithology receptors during construction has been assessed as having minor adverse significance, which is not significant in Environmental Impact Assessment (EIA) terms. The displacement impact of the vessel transit activities has been assessed qualitatively due to their local and temporary nature (see Volume 2, Chapter 5: Offshore ornithology of the Environmental Statement (Document Reference F2.5) and Volume 2, Chapter 4: Marine mammals of the Environmental Statement (Document Reference F2.4)). Therefore, measures are proposed to minimise the risk of potential disturbance or damage to marine wildlife ~~for from transiting~~ vessels [which are either undertaking construction works \(i.e. cable laying\) or transiting to and from port and works areas during the construction and operation, operations and maintenance phases of the Mona Offshore Wind Project. The working area where these measures apply is the Mona Offshore Cable Corridor between the offshore extent of the Liverpool Bay/Bae Lerpwl SPA and the entry/exit location of the trenchless installation works, within the nearshore waters of the Liverpool Bay SPA. These measures also apply to vessels, both within and outside, the Liverpool Bay/Bae Lerpwl SPA within the Irish Sea, while transiting to the Mona Array Area and Mona Offshore Cable Corridor.](#)
- 1.1.3.3 Several measures will apply to both marine mammals and offshore ornithology receptors (plus other marine wildlife; see Section 9.1.1), while other measures will be specific to [reducing](#) the ~~reduction of~~ risk of disturbance to rafting birds (Section 1.3). [The measures described in Section 1.1 apply to all offshore construction and operations and maintenance activities, unless otherwise specified.](#)

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1.1.3.4 As set out in Table 1.1, engagement with key stakeholders through the EWG identified the need for a specific timing restriction on some activities within the Liverpool Bay/Bae Lerpwl SPA between 1 November and 31 March inclusive to reduce disturbance to rafting birds (specifically common scoter and red-throated diver, which are features of the Liverpool Bay/Bae Lerpwl SPA). Further details regarding this measure are provided in Section 1.3.1.

1.1.3.5 Additional measures with respect to rafting birds only will also apply to vessels, both within and outside of the Liverpool Bay/Bae Lerpwl SPA (within the Irish Sea), while transiting to and from the Mona Array Area and Mona Offshore Cable Corridor. These are set out in Section 1.3.2.

1.1.3.6 There are a number of exclusions outlined in Section 1.4 that relate to emergency scenarios and operational safety that would apply to some or all of the proposed measures described in Sections 1.1 and 1.3.

1.1.3.7 See the sections below for a description of the proposed measures as well as Table 1.2 for a summary of the vessel activities to which the measures described will apply and any associated exclusions.

~~1.1.3.4~~ 1.1.3.8 The measures to minimise disturbance to marine mammals and rafting birds, as described within this document, will be included as an appendix to the Offshore Environmental Management Plan. The Offshore Environmental Management Plan is secured within Schedule 14 of the draft Development Consent Order (DCO) ([REP2-004](#)) and expected to be secured within the standalone NRW marine licence, as presented within the Marine ~~licence principles document~~ [Licence Principles Document](#) (Document Reference J9). The licence condition [in the standalone NRW marine licence](#) is anticipated to include the submission of [the final version of this document](#) to NRW for approval ~~and subsequent compliance~~ [prior to commencement](#) of the ~~approved document~~ [licenced works](#).

~~1.1.3.5 Please see Table 1.2 for an overview of the vessel activities to which the measures described will apply.~~

Table 1.2: Overview of vessel transit activities that measures (fully or in part) apply to.

Activity	Measures applicable?
Vessels installing export cables inside the Liverpool Bay/Bae Lerpwl SPA	Yes
Vessels installing export cables outside the Liverpool Bay/Bae Lerpwl SPA	No
Vessels involved in intertidal trenchless installation within Liverpool Bay/Bae Lerpwl SPA	No
Vessels travelling to the Mona Offshore Cable Corridor and Array Area within and outside Liverpool Bay/Bae Lerpwl SPA (within the Irish Sea)	Yes

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1.2 Proposed measures applicable to marine wildlife

1.3.1.2 ~~The measures described in Section 0 apply to all (marine locations directly related to the construction and operations and maintenance activities, unless otherwise specified.~~ mammals and rafting birds

~~1.3.1.1~~ 1.2.1.1 While the focus of this document is specific to measures that minimise disturbance to marine mammals and rafting birds, the actions proposed in this section will benefit marine wildlife in general, including basking sharks.

~~1.3.1.2~~ 1.2.1.2 The Wildlife Safe (WiSe) Scheme (<https://www.wisescheme.org/>) is a UK national training scheme for minimising disturbance to marine life. Key principles from the WiSe Scheme (or ~~other~~ another similar scheme) will be followed ~~as a measure for reducing to~~ reduce the disturbance of vessel transits on marine mammals and rafting birds visible at the water surface, or as otherwise agreed with the Statutory Nature Conservation Bodies (SNCB).

~~1.3.1.3~~ 1.2.1.3 The WiSe Scheme is referenced and endorsed in other relevant codes of conduct for water users, including those produced by ~~both~~ Defra (Defra, 2023) and NatureScot (NatureScot, 2023). This measure will minimise the potential for any impact, where appropriate, during all authorised construction ~~and~~ operations and maintenance activities.

1.2.1.4 Key principles of the WiSe Scheme ~~comprise of:~~ include:

- appropriate craft-handling around wild animals (such as avoiding sudden changes in speed and avoiding over-revving of engines);
- codes of conduct;
- information on local and national laws relating to wildlife; and
- information on each of the species that are commonly encountered.

~~1.3.1.4~~ 1.2.1.5 The site induction processes will incorporate the principles of the WiSe training scheme (or ~~other~~ another similar scheme) to ensure that key personnel are aware of the need to follow these principles.

1.4.1.3 Proposed measures specific applicable to rafting birds only

1.3.1 Seasonal restriction to cable installation activities in the Liverpool Bay/Bae Lerpwl SPA

1.3.1.1 In addition to the measures outlined in Section ~~0~~ 1.2, specific measures applicable to reduce disturbance to rafting birds (specifically common scoter and red-throated diver as features of the Liverpool Bay/Bae Lerpwl SPA) ~~will be applied during transiting to and from port and works areas~~ have been proposed. The overwintering period during which red-throated diver and common scoter may interface with the Mona Offshore Wind Project is ~~4st from 1~~ 4st from 1 November to ~~31st~~ 31 March. Therefore, cable installation activities in the Liverpool Bay/Bae Lerpwl SPA will not take place ~~during 4st from 1~~ 4st from 1 November to ~~31st~~ 31 March to minimise disturbance to ornithology receptors. This restriction is applicable to cable installation vessels undertaking active cable installation within the Liverpool Bay/Bae Lerpwl SPA only.

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1.3.1.2 This measure will apply to the Mona Offshore Cable Corridor, between the offshore extent of the Liverpool Bay/Bae Lerpwl SPA and the entry/exit location of the trenchless technique installation works at the landfall, within the nearshore waters of the Liverpool Bay/Bae Lerpwl SPA.

~~1.4.1.1~~1.3.1.3 This commitment is expected to be secured within the standalone NRW marine licence as presented within the Marine licence principles document (Document Reference J9).

1.3.2 Other measures

1.3.2.1 In addition to the measures outlined in Section 1.2 and Section 1.3, other measures applicable to rafting birds will be applied during transiting to and from port and works areas.

~~1.4.1.2~~1.3.2.2 The following measure ~~options~~ will also be discussed with NRW through finalisation of the Offshore Environmental Management Plan (EMP):

- It is proposed that key project vessels will use indicative vessel transit ~~corridors~~routes, as detailed in the Outline vessel traffic management plan (Document Reference J14). ~~Increased vessel traffic during construction, operations and maintenance, and decommissioning may potentially lead to disturbance and displacement of common scoter and red-throated diver species within Liverpool Bay/Bae Lerpwl SPA and the Mona Offshore Cable Corridor and Access Areas, as assessed and stated in Volume 2, Chapter 5: Offshore ornithology of the Environmental Statement (Document Reference F2.5). However, no significant effects are predicted due to this disturbance, as noted in Section 1.1. F02.~~ Use of regular vessel transit routes which follow, where possible, established shipping routes within Liverpool Bay and, ~~or~~, charted approaches to ports and harbours will ~~nonetheless~~ act to restrict the spatial distribution of such disturbance and minimise any potential disturbance as far as possible. The Outline vessel traffic management plan (J14 F02) refers to the offshore EMP (including the Measures to minimise disturbance to marine mammals and rafting birds from transiting vessels) as an associated document that may need to be considered in developing the final vessel traffic management plan (see paragraph 1.7.1.2 of the Outline vessel traffic management plan (J14 F02).
- ~~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 0.1.1. Vessel operators will be made aware of bird sensitivities in~~associated with the Liverpool Bay/Bae Lerpwl SPA, and visible aggregations of rafting birds (inside or outside of the Liverpool Bay/Bae Lerpwl SPA) 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 (see Section 1.4)~~
- ~~All vessels associated with the Mona Offshore Wind Project will use an Automatic Identification System (AIS) which broadcasts the location of the vessel and is monitored by the Projects' Marine Co-ordination Centre.~~

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1.5.1.4 Exclusions

1.5.1.1 1.4.1.1 Except where specifically described, the measures detailed in this document will not apply to the following activities:

- Vessels actively laying cable in areas that coincide with known areas of bird aggregations.
- Vessel activity associated with trenchless techniques at the exit /entry pit at the landfall.

1.5.1.2 1.4.1.2 Unplanned situations may arise where this plan will not apply. Such scenarios may include the following (though not exclusively):

- Operational emergencies, such as an unwell crew member, critical mechanical failure or inclement weather, where the most direct route back to port is required
- Any emergency or corrective works on the export cables within the SPA within the period ~~of 1st~~ from 1 November to ~~31st~~ 31 March (e.g. a cable unburial event deemed to be a risk to navigation). In such cases, the NRW would be made aware of the situation.

1.5.1.3 1.4.1.3 Nothing in this document will limit the key requirement 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 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.

1.5 Summary

1.5.1.1 Table 1.2 presents a summary of the proposed measures and the vessel activities to which the measures described will apply.

Table 1.2: Summary of vessel activities that the proposed measures will apply to.

<u>Measures</u>	<u>Activity</u>	<u>Measures applicable?</u>
Applicable to marine wildlife (marine mammals and rafting birds)		
<u>Application of the key principles from the WiSe Scheme (or another similar scheme)</u>	<u>Vessels travelling to and from the Mona Offshore Cable Corridor and Mona Array Area within and outside Liverpool Bay/Bae Lerpwl SPA during the construction and operations and maintenance phases.</u>	<u>Yes</u>
	<u>Vessels undertaking construction works within the Mona Offshore Cable Corridor and Mona Array Area within and outside Liverpool Bay/Bae Lerpwl SPA.</u>	<u>Yes</u>
	<u>Vessels actively laying cable in areas that coincide with known areas of bird aggregations.</u>	<u>No</u>
	<u>Vessels involved in export cable installation by trenchless techniques at the landfall within Liverpool Bay/Bae Lerpwl SPA.</u>	<u>No</u>

Applicable to rafting birds

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<u>Measures</u>	<u>Activity</u>	<u>Measures applicable?</u>
Timing restriction (1 November to 31 March) for export cable installation within the Liverpool Bay/Bae Lerpwl SPA	Installation of export cables by cable-laying vessels within the Liverpool Bay/Bae Lerpwl SPA.	Yes
	Vessels installing export cables outside the Liverpool Bay/Bae Lerpwl SPA.	No
	Vessels involved in export cable installation by trenchless techniques at the landfall within Liverpool Bay/Bae Lerpwl SPA.	No
	Any emergency or corrective works on the export cables within the Liverpool Bay/Bae Lerpwl SPA (e.g. a cable unburial event deemed to be a risk to maintaining safety of navigation).	No
Project vessels will use indicative vessel transit routes as detailed in the Outline vessel traffic management plan (Document Reference J14)	Vessels travelling to and from the Mona Offshore Cable Corridor and, or Mona Array Area within and outside Liverpool Bay/Bae Lerpwl SPA (within the Irish Sea) during the construction and operation and maintenance phases.	Yes
	Any emergency or corrective works (e.g. a cable unburial event deemed to be a risk to maintaining safety of navigation).	No
Avoidance of locations where birds are known to aggregate	Vessels travelling to and from the Mona Offshore Cable Corridor and, or Mona Array Area within and outside Liverpool Bay/Bae Lerpwl SPA during the construction and operation and maintenance phases.	Yes
	Vessel activity associated with trenchless techniques at the exit /entry pit at the landfall within Liverpool Bay/Bae Lerpwl SPA.	No
	Installation of export cables by cable-laying vessels outside the Liverpool Bay/Bae Lerpwl SPA.	No
	Installation of export cables by cable-laying vessels inside the Liverpool Bay/Bae Lerpwl SPA but outside the timing restriction of 1 November to 31 March.	No
	Any emergency or corrective works (e.g. a cable unburial event deemed to be a risk to maintaining safety of navigation).	No

1.6 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 February 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 February 2023.

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 February 2024.