

Volume 2: Appendices

Appendix 11
Environmental Vessel
Management Plan

North Irish Sea Array Windfarm Ltd

Environmental Vessel Management Plan

North Irish Sea Array Offshore Windfarm



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Contents

1	Introduction	5
1.1	The Proposed Development	5
1.2	Scope of this Plan	6
2	Management Measures	8
2.1	Marine Mammals	8
	Collision Avoidance	8
	Designated Sites	9
2.2	Ornithology	9
	Mitigation Measures	9
	Designated Sites	10
3	Good Industry Practice	11
3.1	Vessel Operation Guidelines and Safety Awareness	11
3.2	Briefings and Toolbox Talks	11
4	References	12



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Acronyms

Term	Definition
ADD	Acoustic Deterrent Device
CIP	Copenhagen Infrastructure Partners
cSPA	Candidate Special Protection Area
EVMP	Environmental Vessel Management Plan
HWM	High Water Mark
IWDG	Irish Whale and Dolphin Group
MINNS	Marine Invasive Non Native Species
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Mammal Observer
NIS	Natura Impact Statement
NISA	North Irish Sea Array
NM	Nautical Mile
OSP	Offshore Substation Platform
SAC	Special Area of Conservation
VMP	Vessel Management Plan
WTG	Wind Turbine Generator



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1 Introduction

1.1 The Proposed Development

- 1.1.1 North Irish Sea Array (NISA) Windfarm Ltd (hereafter 'the Developer') is a Joint venture between Statkraft Ireland and Copenhagen Infrastructure Partners (CIP) and is developing the NISA Offshore Wind Farm (hereafter 'the proposed development'), a planned offshore wind farm located in Irish waters approximately 9.5 nautical miles (nm) off the coast of Drogheda.
- 1.1.2 The proposed development boundary, within which the proposed development will be located, comprises the offshore development area off the coast of Counties Dublin, Meath and Louth and the onshore development area within County Dublin (Fingal and Dublin City Council administrative areas) with the High Water Mark (HWM) (as defined by Ordnance Survey Ireland mapping), being the transition point between the offshore and onshore infrastructure).
- 1.1.3 Construction of the offshore development area will be undertaken during a three year time period and the offshore infrastructure comprises:
- Offshore wind turbine generators (WTGs) and their associated foundations;
 - Inter-array cables which will connect the WTGs to the Offshore Substation Platform (OSP);
 - An OSP and associated foundations; and
 - Offshore export cable(s) which will deliver the generated power from the OSP to HWM..
- 1.1.4 The proposed development will employ a Marine Coordinator responsible for supervising all offshore maritime operations. The Marine Coordinator will oversee the day-to-day vessel activity, will act as the first point of contact for incident management and will ensure compliance with safety and environmental protection standards.
- 1.1.5 The location of the construction port for the project is yet to be identified, with identification being completed post-consent.
- 1.1.6 An Environmental impact assessment has been undertaken in order to underpin a consent application for the proposed development. As part of this process the potential effects on shipping and navigation and marine ecological receptors have been assessed. In terms of potential effects resulting from the interaction of marine ecology and vessel movements during construction, operation and maintenance and decommissioning, the following has been assessed:
- Auditory injury (PTS) from construction, operation and maintenance and decommissioning activities (which includes noise from cable laying vessels and dredging activity);
 - Collision with vessels (due to increased vessel activity); and
 - Disturbance from vessels (underwater noise and physical presence).
- 1.1.7 The assessment concluded that potential effects would be not significant in EIA terms and that no additional mitigation measures would be required, other than the embedded mitigation and commitments already built into the project design.



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1.2 Scope of this Plan

- 1.2.1 During the pre-construction, construction, operation and decommissioning of the proposed development, activities will take place offshore involving vessels and personnel. Following completion of the Navigational Risk Assessment and environmental impact assessment for shipping and navigation, a Vessel Management Plan (VMP) has been produced to document vessel management procedures including specific operational measures to be implemented such as indicative transit corridors and areas where anchoring may occur.
- 1.2.2 In addition to the operational procedures, It is likely that vessel activities will also be undertaken in close proximity or in the vicinity of marine wildlife, such as marine mammal and marine ornithology receptors. To complement the VMP, this Environmental Vessel Management Plan (EVMP) has been produced to document the associated measures that will be in place to mitigate potential impacts to marine wildlife from vessels associated with the proposed development. Both the VMP and EVMP have different purposes but both will need to be complied with as part of the post-consenting process. The EVMP covers the following:
- Specific management measures to be implemented during the relevant phase of the proposed development, be it construction, operation and/or decommissioning (such as collision avoidance and approach to designated sites);
 - Adoption of good industry practice including safety awareness and vessel operation guidelines; and
 - Briefings and toolbox talk requirements.
- 1.2.3 The decommissioning phase is anticipated to represent a similar scenario to the construction phase in terms of increased vessel activity and therefore similar procedures will be applied. This is referenced where appropriate in this document, noting that the EVMP will be reviewed in advance of the decommissioning phase.
- 1.2.4 The objective of this EVMP is to:
- Minimise the risk of collision and injury to marine wildlife;
 - Minimise the risk of disturbance to marine wildlife;
 - Offer guidance to contractors conducting activities on behalf of the Developer in proximity to wildlife; and
 - Provide contractors with the knowledge of how to deal with, and procedures for reporting, vessel collisions with marine wildlife.
- 1.2.5 This EVMP does not include consideration of marine invasive non native species (MINNS) with respect to the ballast water of vessels or the potential for spread of MINNS via the vessel itself (e.g. hull, anchors etc.). This aspect is considered in detail within the Offshore Environmental Management Plan (OEMP) that has been produced separately. The OEMP contains detailed information on the roles and responsibilities in relation to MINNS, how they might be spread and the measures that should be adopted to prevent spread.



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- 1.2.6 The focus and scope of this EVMP is to provide measures to mitigate impacts to marine mammals and birds at sea however, these measures will also have a positive effect on other wildlife such as fish, marine turtles, and larger mobile receptors, such as basking sharks.
- 1.2.7 This EVMP is a live document that will be reviewed and updated throughout the life of the proposed development.
- 1.2.8 This document provides guidance for vessel activities only in relation to managing potential impacts on the wildlife described within. Operational procedures for vessels during the various stages of the project development, including indicative transiting routes and areas suitable for anchoring are set out within the VMP.
- 1.2.9 The document should be read alongside the following documents:
- NISA Offshore Wind Farm Natura Impact Statement (NIS) 2024
 - NISA Offshore Wind Farm Environmental Impact Assessment Report, specifically:
 - Volume 3, Chapter 13 Fish and Shellfish Ecology
 - Volume 3, Chapter 14 Marine Mammal and Megafauna Ecology
 - Volume 3, Chapter 15 Offshore Ornithology
 - Volume 3, Chapter 17 Shipping and Navigation
 - Appendix 17.2, Vessel Management Plan
 - Appendix 8.1, Offshore Environmental Management Plan
 - Appendix 14.3, Marine Mammal Mitigation Protocol (MMMP).



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2 Management Measures

2.1 Marine Mammals

Collision Avoidance

- 2.1.1 Approaches to minimising the risk of vessel collisions with marine mammals include using existing vessel routes, where practicable, on the basis that marine mammals are accustomed to vessels in those areas thereby reducing the risk of collision. Marine mammals may also have become habituated to the volume of regular vessel movements and therefore the additional risk is predominantly confined to construction sites. The vessel movements for offshore wind farms will be within defined transit corridor routes and at construction sites are likely to be limited to only the vessels needed for specific construction tasks, resulting in a controlled risk of disturbance to marine mammal receptors. In addition, similar to the proposed development, most projects are likely to adopt EVMPs, MMMPs or comply with existing Marine Wildlife Watching Codes to minimise any potential effects on marine mammals such as The Scottish Marine Wildlife Watching Code SMWWC - Part 1 (SNH, 2017a), A Guide to Best Practice for Watching Marine Wildlife SMWWC - Part 2 (SNH, 2017b) and Marine Notice No. 15 of 2005 on the Guidelines for Correct Procedures When Encountering Whales and Dolphins in Irish Coastal Waters (DCMNR, 2005).
- 2.1.2 Additionally, the Irish Whale and Dolphin Group (IWDG) produced a Code of Conduct for all watercraft encountering whales and dolphins (IWDG, 2005). The Developer recognises that these guidelines are for interactions between small vessels and marine mammals, particularly for whale watching vessels however, the key principles should be followed by all vessels associated with the proposed development where practicable, to minimise the risk of vessel collisions and vessel disturbance to marine mammals and other marine wildlife.
- 2.1.3 Measures to avoid marine mammal collisions and minimise disturbance during transit to and from the offshore development area include:
- When an animal(s) is first sighted, vessels should maintain a steady course (speed and direction) to allow marine mammals to predict the vessel's path;
 - Where practicable, when an animal(s) is in close proximity (for example 100 – 200 m), vessel speed should be gradually reduced and maintained below 7 knots (in accordance with DCMNR, 2005). The exception to this is when behaviour such as bow riding is experienced, where speed should be maintained on a steady course;
 - If animals are moving in a consistent direction, maintain a parallel course;
 - Do not cut off individuals by moving across their path;
 - Avoid deliberately approaching marine mammals when sighted;
 - Avoid abrupt changes to course or speed should marine mammals approach the vessel, be on course to cross the path of a vessel or bow-ride;



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- Transit vessels should maintain a minimum distance of 150 m or more from the coast, particularly when near to known seal haul-out sites during sensitive periods (i.e. moulting and breeding seasons). Vessels should remain in the vicinity of seals for no more than 15 minutes; and
 - Use of established vessel routes where possible or following the indicative transit routes and VPM procedures that will be defined in advance of the construction phase which will reduce collision risk and marine mammals may become acclimatised to during construction (see Section 6 of Volume III, Appendix 17.2: Vessel Management Plan).
- 2.1.4 There is no guidance for vessels operating in close proximity to basking sharks or marine turtles in Irish waters. The recommended measures for marine mammals are considered relevant and applicable to basking sharks and marine turtles; therefore, should these species/taxa be sighted the recommended measures above should be followed.
- 2.1.5 Details of any collision between a vessel and marine mammal, marine turtle and/or basking shark should be reported to the Developer.

Designated Sites

- 2.1.6 It is recognised that the proposed development is within close proximity to designated sites that have marine mammals as qualifying interests, this includes Harbour porpoise at Rockabill to Dalkey Island Special Area of Conservation (SAC).
- 2.1.7 Although marine mammals are mobile creatures and it is likely that individuals can be found outside of the SAC boundary, the SAC is noted to provide key habitat for the species, which are present all year round within the SAC, often with young. Important habitats include inshore shallow sand and mudbanks and rocky reefs scoured by strong current flow. Although not designated for these species, the SAC also supports other marine mammals such as seals, whales and dolphins. The presence of vessels within the SAC may introduce increased disturbance resulting from underwater noise and physical presence of vessels as well as present an additional collision risk. Therefore in recognition of this, there will be no anchoring of vessels within the SAC where practicable (excluding where it's required for navigational safety).

2.2 Ornithology

Mitigation Measures

- 2.2.1 Potential impacts on seabirds will be mitigated through the following measures where practicable and safe to do so:
- Use of established navigation routes, especially in the nearshore environment - Vessel movements will follow, where practicable, existing navigation routes enroute to the array area and offshore export cable, where the densities of divers and seaducks are typically relatively low due to regular vessel presence compared to the wider inshore area.



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- Where practicable vessels accessing the offshore development area during construction are to seek to avoid 'rafts' of birds¹ and feeding aggregates to minimise disturbance and displacement.
- During the operational phase the proposed development will reduce vessel activity in the ECC during the most sensitive months for coastal divers (November to March 1st inclusive), where practicable.
- Beyond the period November to March 1st, disturbance within the nearshore environments will continue to be reduced, where practicable, during maintenance work, as these areas are where density of seaducks and divers are highest. Potential effects on designated sites (e.g. North-west Irish Sea cSPA) have been avoided through early consideration of vessel movements and project design including disregarding Operation and Maintenance Facility (OMF) options inshore of the array area.
- Avoidance of rafting birds during transiting and within the offshore development area (during all phases). Vessels will seek to avoid rafting birds at all times and where practicable avoid disturbance to areas with consistently high diver density.
- Vessels will seek to avoid unnecessary running of engines and idling engines while anchored, in order to minimise noise disturbance. Vessels will shut down engines or maintain low engine power as soon as possible.

Designated Sites

- 2.2.2 The offshore development area is located within the North-west Irish Sea cSPA, which has been put forward as a protected site for marine birds. The cSPA offers safe feeding and roosting habitats for waterbirds throughout the winter and migration periods. The presence of vessels within the cSPA may introduce increased disturbance and displacement of birds as a result of underwater noise and physical presence of vessels. In recognition of this a project level commitment has been made that during the operational phase the proposed development will reduce vessel activity along the offshore export cable and its associated maintenance corridor during the most sensitive months for coastal divers (November to March 1st inclusive) where practicable.

¹ A 'raft of birds' is a gathering or group of birds concentrated in one place in the sea. Typically birds may be feeding or roosting together.



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3 Good Industry Practice

3.1 Vessel Operation Guidelines and Safety Awareness

3.1.1 As a general guide, the following code of conduct has been identified as relevant for the proposed development and should be implemented by vessels, to minimise risks to marine wildlife:

- Incorporate vessel movements to and from ports within existing routes where feasible;
- Avoid active and deliberate approaches or pursuits of animals;
- Refrain from touching animals;
- When animals are alongside vessels, vessel speed should be gradually reduced and maintained below 7 knots (in accordance with DCMNR, 2005). The exception to this is when behaviour such as bow riding is experienced, where speed should be maintained on a steady course, avoiding course changes; and
- Conduct briefings for vessel crew on the purpose and implications of these vessel management practices, such as through toolbox talks (discussed further in Section 3.2).

3.1.2 These recommendations are applicable unless they pose a risk to the safety of the vessel, crew, and other sea users. Safety is the foremost priority in all cases.

3.2 Briefings and Toolbox Talks

3.2.1 Vessel crew will be briefed on the purpose and implications of the vessel management practices outlined in this EVMP and that the EVMP (and VMP) must be complied with.

3.2.2 In the marine environment, operators of vessels shall be informed about the potential threat their vessels may pose to marine wildlife. Guidance on collision awareness and avoidance protocols must be communicated to vessel crews during mobilisation briefings. Reminder briefings will be incorporated into daily briefings onboard the vessel at regular intervals. Toolbox talks are an effective means of disseminating information related to work activities. Contractors are obligated to deliver environmental toolbox talks to all on-site personnel when required, and records of attendees must be maintained for potential inspection during environmental audits. Vessel operators will be made aware of the importance of marine mammals and birds, the need to avoid and minimise disturbance, how to deal with encounters and the associated mitigation measures required through toolbox talks. Daily logs should record when these toolbox talks take place and the topic discussed.



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4 References

Department of Communications, Marine and Natural Resources. (2005), 'Guidelines for correct procedures when encountering whales and dolphins in Irish coastal waters', Marine Notice No. 15 of 2005.

Irish Whale and Dolphin Group. (2005), 'Code of Conduct for all watercraft encountering whales and dolphins'.

Scottish Natural Heritage. (2017a). The Scottish Marine Wildlife Watching Code SMWWC - Part 1. Scottish Natural Heritage.

Scottish Natural Heritage. (2017b). A Guide to Best Practice for Watching Marine Wildlife SMWWC - Part 2. Scottish Natural Heritage.





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