PROPOSED TEMPORARY MET MAST

DEVELOPMENT AT

DRUMSHALLON, COUNTY LOUTH

SCREENING FOR APPROPRIATE ASSESSMENT

AND

NATURA IMPACT STATEMENT

March 2025

Prepared for

EDF Renewables Ireland Ltd.

by

BioSphere Environmental Services

29 La Touche Park, Greystones, Co. Wicklow

Tel: 01-2875249 / 087 230 9906; E-mail: maddenbio20@gmail.com

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1. INTRODUCTION

1.1 Background

This report for Appropriate Assessment Screening and Natura Impact Statement has been prepared by Dr. Brian Madden of BioSphere Environmental Services on behalf of EDF Renewables Ireland Ltd.. The purpose of the report is to provide the information required to assist the competent authority to undertake a Screening Assessment and, if considered necessary, an Appropriate Assessment (AA). This process will determine the likely significant effects, if any, of the proposed met mast development at Drumshallon, Co. Louth, either individually or in combination with other plans and projects, on the integrity of European sites in view of those sites' conservation objectives.

Based on best available scientific knowledge, the potential effects on European sites, both as a result of the proposed development and in-combination with other plans and projects, are appraised in this report.

The requirements for an Appropriate Assessment are set out under Article 6 of the EU Habitats Directive (92/34/EEC), transposed into Irish law through the European Union (Birds and Natural Habitats) Regulations 2011-2015 and the Planning and Development Act, 2000 (as amended).

The report is based on a site visit by Dr Brian Madden on 15th December 2023, a review of technical information on the met mast which accompanies the planning application, and a comprehensive literature review.

It is noted that the site for the temporary met mast is within the redline boundary of the proposed Kellystown Wind Farm (submitted for planning: ref. no. 2460766). A review was carried out of the EIAR for the wind farm project, with focus on Chapter 6: Biodiversity, Chapter 7: Aquatic Ecology and Chapter 8: Ornithology.

1.2 Statement of Authority

Brian Madden (BA. Mod. Hons., Ph.D., MCIEEM) qualified in Natural Sciences in 1984 and earned a doctorate degree from NUI in 1990 for research in peatland ecosystem processes. In the early 1990s, Brian worked as a Research Fellow on nuisance algal growths in Dublin Bay. Since the mid-1990s, Brian has managed BioSphere Environmental Services which specializes in Environmental Impact Assessment, Appropriate Assessment, and Nature Conservation related projects.

1.3 Regulatory Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides the framework for legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (2009/147/EC) (better known as "The Birds Directive").

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (see below).

> "*Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public"*

This provision has been implemented in the context of the planning code under article 177U and 177V of the Planning and Development Act, 2000, as amended.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First the project should aim to avoid any adverse effects on European sites by identifying possible effects early in the planning stage, and designing the project in order to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point, where no adverse effects on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected. If no alternative solutions are identified and the project is required for imperative reasons of overriding public interest (IROPI test) under Article 6 (4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect(s).

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First the project should aim to avoid any adverse effects on European sites by identifying possible effects early in the planning stage, and designing the project in order to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse effects on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected, unless in accordance with Article 6(4) of the Habitats Directive the project must be carried out for imperative

reasons of overriding public interest ('IROPI test') and there are no alternative solutions. In such circumstances, compensation measures are required for any remaining adverse effect(s) in order to ensure that the overall coherence of Natura 2000 is protected.

1.4 Stages of the Appropriate Assessment (AA)

This Appropriate Assessment Report / Natura Impact Statement has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland.* Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2010 revision;
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC.* Guidance issued by European Commission (21st November 2018).
- *Assessment of Plans and Projects in relation to Natura 2000 sites – (Revised) Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C/437/01.* Guidance issued by European Commission (28.9.2021 C(2021) 6913 final)
- *ANNEX to the Commission notice to the Assessment of Plans and Projects in relation to Natura 2000 sites – (Revised) Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC : Examples of Practices, Case Studies, Methods and National Guidance.* Issued by European Commission (28.9.2021 C(2021) 6913 final)
- OPR Practice Note PN01 Appropriate Assessment Screening for Development Management. March 2021'

There are up to four successive stages involved in the Appropriate Assessment process. The outcome at each stage determines whether the next stage in the process is required. The following describes each of the four stages:

Stage 1 – Screening

The purpose of the screening stage is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in-combination with other plans or projects, could have significant effects on a Natura 2000 site in view of the site's conservation objectives.

There is no necessity to establish such an effect; it is merely necessary for the competent authority to determine that there may be such an effect. The need to apply the precautionary principle in making any key decisions in relation to the tests of Appropriate Assessment (AA) has been confirmed by the case law of the Court of Justice of the European Union (CJEU). Plans or projects that have no appreciable effect on a European site may be excluded. The threshold at this first stage is a very low one and operates as a trigger in order to determine whether a Stage Two AA must be undertaken by the competent authority on the implications of the proposed development

for the conservation objectives of a European site. Therefore, where significant effects are likely, uncertain or unknown at screening stage, a second stage AA will be required.

Stage 2 – Appropriate Assessment

A Stage Two AA is a focused and detailed examination, analysis and evaluation carried out by the competent authority (in this case, Louth County Council) to determine whether the plan or project, alone and in-combination with other plans and projects, will have an adverse effect on the integrity of a European site in view of that site's conservation objectives. Case law has established that such an Appropriate Assessment, to be lawfully conducted, in summary:

(i) must identify, in the light of the best scientific knowledge in the field, all aspects of the proposed development which can, by itself or in-combination with other plans or projects, affect the conservation objectives of the European site;

(ii) must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps; and

(iii) may only include a determination that the proposed development will not adversely affect the integrity of any relevant European site where Louth County Council decides (on the basis of complete, precise and definitive findings and conclusions) that no reasonable scientific doubt remains as to the absence of the identified potential effects. If adverse impacts can be satisfactorily avoided or successfully mitigated at this stage, so that no reasonable doubt remains as to the absence of the identified potential effects, then the process is complete. If the assessment concludes adverse effects on the integrity of a site cannot be excluded, then the process must proceed to stage three and, if necessary, stage four.

Stage 3 – Assessment of Alternatives

This stage of the potential process arises where adverse effects on the integrity of a European site cannot be excluded and examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European site.

Stage 4 – Imperative Reasons of Overriding Public Interest (IROPI)

This is the derogation process of Article 6(4), which examines whether there are imperative reasons of overriding public interest [IROPI] for allowing a project to proceed where adverse effects on the integrity of a European site have been predicted. Compensatory measures must be proposed and assessed as part of this stage.

2. SCREENING FOR APPROPRIATE ASSESSMENT

Screening determines whether appropriate assessment is necessary by examining:

1. Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a Natura 2000 site;
2. Whether it is possible that the project may have a significant effect on a Natura 2000 site, either alone or in combination with other projects or plans, in view of the site's conservation objectives.

Screening involves the following:

i. Description of plan or project;
ii. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives;
iii. Assessment of likely effects – direct, indirect and cumulative – undertaken on the basis of available information as a desk study or field survey or primary research as necessary;
iv. Screening Statement with conclusions.

2.1 Description of the Site

The site for the proposed mast is located approximately 5 km to the southeast of Dunleer in County Louth and within the townland of Drumshallon (see **Figure 1**).

The site lies at an altitude of approximately 95 m above Ordnance Datum (Malin Head). According to the GSI online database, the proposed development area is immediately underlain by the Clogherhead Formation, which consists of thickly bedded calcareous greywacke. Soils present in the immediate site area consist of glacial tills from Lower Palaeozoic sandstones, with thin glacial till soils overlying shallow, often outcropping greywacke occurring to the west.

Drainage of the area is to the Drumshallon Lough Stream, which occurs within 100 m to the south of the location for the proposed mast (see **Figure 2**). The Drumshallon Lough Stream flows in an eastwards direction and joins with the Piperstown Stream to form the Termonfeckin Stream, which enters the sea approximately 8.5 km downstream of the site at Termonfeckin beach.

Landuse in the wider area is primarily agriculture, with commercial forestry scattered throughout. The Gallstown Quarry lies approximately 600 m to the north of the site.

The location for the proposed mast is within an agricultural field in use as improved grassland GA1 (after Fossitt 2000) for grazing (see **Plate 1**). A stonewall boundary occurs along the eastern

boundary of the field. Scrub WS1, dominated by gorse *Ulex europaeus*, occurs to the west of the grassland. The Drumshallon Lough Stream is classified as a Depositing/lowland river FW2.

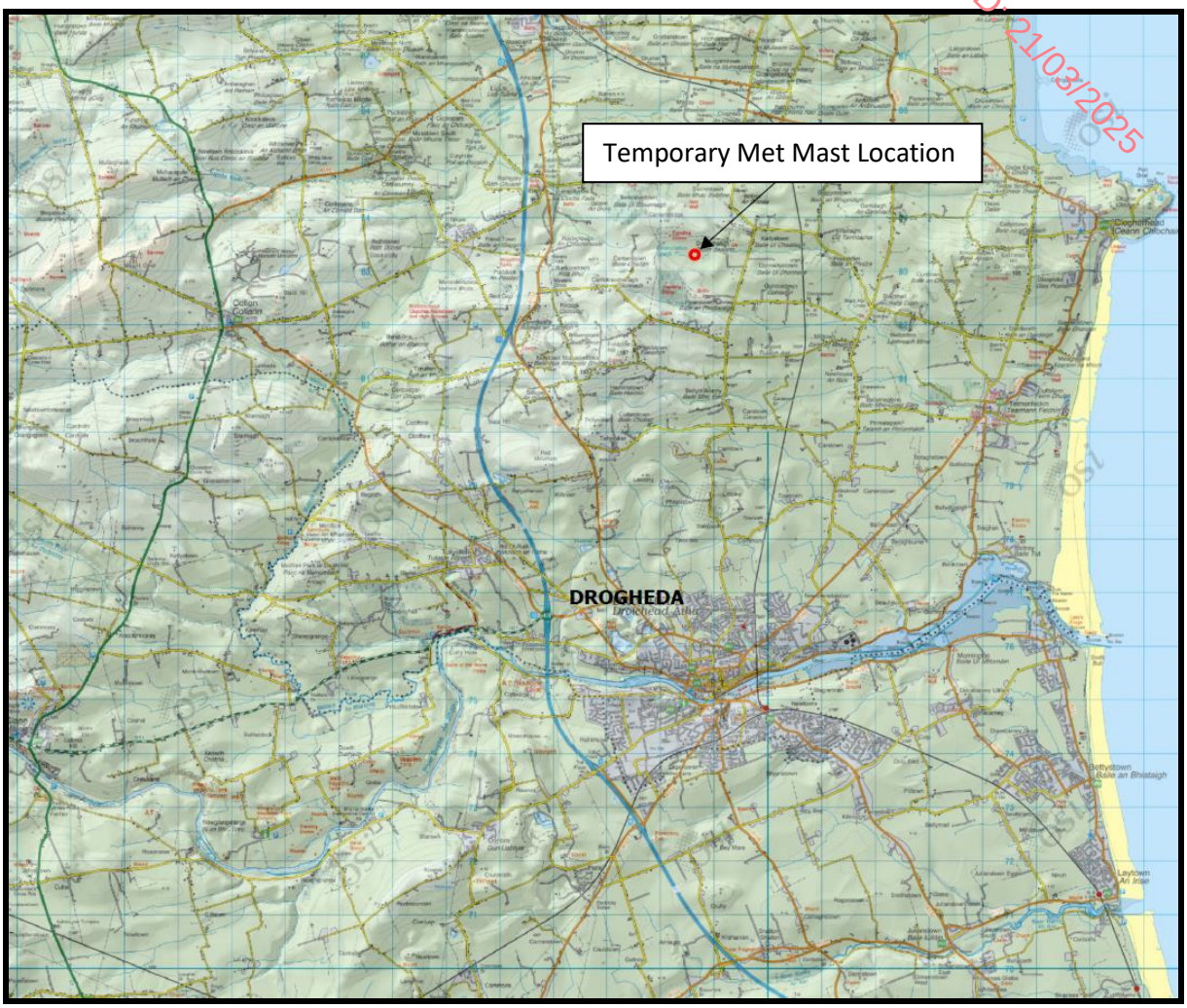

Figure 1. Location of the site for the proposed temporary met mast.

Figure 2. Location of site for proposed temporary met mast in a local context.

Plate 1. View of site for the proposed temporary met mast at Drumshallon, looking northwards (December 2023).

2.2 Description of the Project

The proposed development seeks planning permission for the erection of a Meteorological Mast in the townland of Drumshallon, Co Louth. The approximate location of the Proposed Development is 708559.3943, - 783322.7277 (ITM Easting/ Northing).

The proposed development will consist of:

1. The erection of a temporary 100m high lattice type meteorological mast for a period of 5 years, which will be fixed to ground anchors by guy wires and will include instruments for measuring local climate conditions, services and associated equipment.
2. An Infra-Red LED aviation light will be fitted near the top of the lattice section of the proposed meteorological mast.
3. Bird flight deterrent markers will be fitted to each guy wire at approximately 10m intervals.
4. The proposed works also include temporary staff welfare facilities and all ancillary works.

No hedgerows or trees will be removed as part of the proposal reflecting the low impact and temporary nature of the development.

As outlined in further detail below, construction and operational access will be via an existing access located on the L2275 local road. The access and assocaited site acess track currently accommodates agri-plant and HGV's, provides good access to the location of the proposed mast. It is not proposed to modify the existing access as part of the proposed met mast development.

A Natura Impact Statement (NIS) has been prepared in respect of the proposed development and accompanies the planning application.

Planning permission is sought for an operational period of 5 years after which the mast will be removed.

2.3 Identification of European Sites and Potential for Significant Effects

In accordance with the European Commission Methodological Guidance (EC, 2002), consideration is given to European sites that could potentially be affected by the proposed project.

The "Guidance for Planning Authorities" (Department of Environment, Heritage and Local Government) notes the following in section 3.2.3 "Natura 2000 Sites":

"The second stage (of the AA Screening process) is an examination of what Natura 2000 sites might be affected. These sites should be identified and listed, bearing in mind the potential for a

plan or project, whether it is within or outside a Natura 2000 site, to have direct, indirect or cumulative effects, and taking a precautionary approach so that a site is included if doubt exists".

The approach to screening is likely to differ somewhat between plans and projects, depending on scale and on the likely effects, but the following should be included:

1. *Any Natura 2000 sites within or adjacent to the plan or project area*
2. *Any Natura 2000 sites within the likely zone of impact of the plan or project. A distance of 15 km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al. 2006). For projects, the distance could be much less than 15 km, and in some cases less than 100 m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in-combination effects.*
3. *Natura 2000 sites that are more than 15 km from the plan or project area depending on the likely impacts and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality of quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment."*

The OPR Practice Note PN01 document provides as follows in relation to the identification of relevant European Sites (pg.11), *inter alia*:

"Applications within or immediately adjacent to a European site"
All proposed development located either partially or wholly within or immediately adjacent to a SAC or SPA should be easily identifiable from examining GIS mapping. These European sites should be automatically selected for consideration in the screening exercise.

"Identification of other European sites"
The identification of European sites within a 15km zone has become common practice in screening projects for AA. However, this approach is not based on the S-P-R model and should not be used for projects. Few projects have a zone of influence this large, but some more complex projects may require a greater zone of investigation.

Instead, the zone of influence of a project should be considered using the Source-Pathway-Receptor model. This should avoid lengthy descriptions of European sites, regardless of whether they are relevant to the proposed development, and a lack of focus on the relevant European sites and issues of importance.

Following the above-mentioned Guidance documents, for the Proposed Development all European Sites that could possibly be affected were identified using a Source-Pathway-Receptor conceptual model for environmental management risk assessment.

It is noted first that the proposed development site is not within, or adjacent to, any designated European site.

Using a precautionary approach, and taking into account the potential for bird collision risk with wire guy ropes, all European designated sites within a distance of up to 15 km from the location of the met mast site were considered (see **Figures 3 & 4**, and http://webgis.npws.ie/npwsviewer/ for online mapping). Information on the sites with regard to their conservation objectives and connectivity to the proposed Project is provided in **Table 1**.

Sites that were further away from the proposed development were also considered and no realistic Source-Pathway-Receptor chain for significant effect was identified for any European Site that was further than 15 km from the study site.

A total of ten European sites are identified where consideration is given for the potential of the proposed Project to impact on their qualifying interests and/or Special Conservation Interests. These sites are listed in **Table 1** and mapped in **Figures 3 & 4.** The ten sites are:

- Clogher Head SAC (code 001459)
- Boyne Coast and Estuary SAC (code 001957)
- River Boyne and River Blackwater SAC (code 002299)
- Dundalk Bay SAC (code 000455)
- Stabannan-Braganstown SPA (code 004091)
- Dundalk Bay SPA (code 004026)
- North-West Irish Sea SPA (code 004236)
- Boyne Estuary SPA (code 004080)
- River Nanny Estuary and Shore SPA (code 004026)
- River Boyne and River Blackwater SPA (code 004232)

Table 1. Relevant European sites, reasons for designation, distances from Project Area and summary of connectivity.

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	SPECIAL AREAS OF CONSERVATION	
Clogher Head SAC (site code 001459)	Qualifying Interests • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • European dry heaths [4030] According to this SAC's site Conservation Objectives document: NPWS (27 Jan 2017) Conservation Objectives: Clogher Head SAC [001459], Version 1.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, for each of the listed QIs, the Conservation Objective is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	The location for the proposed met mast is approximately 8km from the SAC (closest straight-line distance). There is no ecological or hydrological continuity between the two locations. It is concluded that there is no connectivity between the proposed met mast location and the SAC.
Boyne Coast and Estuary SAC (site code: 001957)	Qualifying Interests • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] According to this SAC's site Conservation Objectives document: NPWS (31 Oct 2012), Conservation Objectives for Boyne Coast and Estuary [001957]. Version 1.0. Department of Arts, Heritage and the Gaeltacht, for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitats and/or the Annex II species for which the SAC has been selected.	The location for the proposed met mast is approximately 7km from the SAC (closest straight-line distance). The area of the met mast drains to the Drumshallon Lough Stream, which flows eastwards and enters the sea downstream of Termonfeckin, at the northernmost tip of the SAC (channel distance of c.8.5km). It is concluded that there is hydrological connectivity between the location of the proposed met mast and the SAC..

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
River Boyne and River Blackwater SAC (site code: 002299)	**Qualifying Interests** • Alkaline fens [7230] • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] • Lampetra fluviatilis (River Lamprey) [1099] • Salmo salar (Salmon) [1106] • Lutra lutra (Otter) [1355] According to this SAC's site Conservation Objectives document: NPWS (2021): Conservation Objectives: River Boyne and River Blackwater SAC, Version 1 [002299]. Department of Housing, Local Government and Heritage, for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitats and/or the Annex II species for which the SAC has been selected.	The location for the proposed met mast is approximately 8km from the SAC (closest straight-line distance). The area of the met mast is not within the River Boyne catchment. There is no ecological or hydrological continuity between the two locations. It is concluded that there is no connectivity between the location of the proposed met mast and the SAC.
Dundalk Bay SAC (site code: 000455)	**Qualifying Interests** • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Perennial vegetation of stony banks [1220] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (Juncetalia maritimi) [1410] According to this SAC's site Conservation Objectives document: NPWS (19 July 2011), Conservation Objectives for Dundalk Bay SAC [00455]. Version 1.0. Department of Arts, Heritage and the Gaeltacht, for each of the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of	The location for the proposed met mast is approximately 10km from the SAC (closest straight-line distance). The area of the met mast does not drain towards Dundalk Bay. There is no ecological or hydrological continuity between the two locations. It is concluded that there is no connectivity between the location of the proposed met mast and the SAC.

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	the Annex I habitats and/or the Annex II species for which the SAC has been selected.	
	SPECIAL PROTECTION AREAS	
Stabannan-Braganstown SPA(site code: 004091)	**Qualifying Interests** • Greylag Goose (Anser anser) [A043] According to this SPA's site Conservation Objectives document: NPWS 15 Nov 2022, Conservation Objectives: Stabannan-Braganstown SPA 004091. Version 1.0, Department of Housing, Local Government and Heritage, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species for which the SPA has been selected.	The location for the proposed met mast is approximately 11.5km from the SPA (closest straight-line distance). The habitat (improved grassland) at the location for the proposed met mast has no history of supporting grazing geese and none were recorded feeding in the wider area during baseline bird surveys over 2 years (2021-2023) for the proposed Kellystown Wind Farm development. Whilst guy ropes of met masts could pose a collision risk to flying geese, the location is not on a flightpath used by geese, and geese were not recorded flying over the site during the 24 months of bird surveys for the proposed Kellystown Wind Farm. It is noted that the greylag geese associated with the SPA roost at night in Dundalk Bay (NPWS site synopsis). It is concluded that there is no connectivity between the location for the proposed mast and the SPA.
Dundalk Bay SPA (site code: 004026)	**Qualifying Interests** • Great Crested Grebe (Podiceps cristatus) [A005] • Greylag Goose (Anser anser) [A043] • Light-bellied Brent Goose (Branta bernicla hrota) [A046] • Shelduck (Tadorna tadorna) [A048]	The location for the proposed met mast is approximately 10km from the SPA (closest straight-line distance). The area of the met mast does not drain towards the Dundalk Bay system. The habitat at the site for the proposed met mast,

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	• Teal (Anas crecca) [A052] • Mallard (Anas platyrhynchos) [A053] • Pintail (Anas acuta) [A054] • Common Scoter (Melanitta nigra) [A065] • Red-breasted Merganser (Mergus serrator) [A069] • Oystercatcher (Haematopus ostralegus) [A130] • Ringed Plover (Charadrius hiaticula) [A137] • Golden Plover (Pluvialis apricaria) [A140] • Grey Plover (Pluvialis squatarola) [A141] • Lapwing (Vanellus vanellus) [A142] • Knot (Calidris canutus) [A143] • Dunlin (Calidris alpina) [A149] • Black-tailed Godwit (Limosa limosa) [A156] • Bar-tailed Godwit (Limosa lapponica) [A157] • Curlew (Numenius arquata) [A160] • Redshank (Tringa totanus) [A162] • Black-headed Gull (Chroicocephalus ridibundus) [A179] • Common Gull (Larus canus) [A182] • Herring Gull (Larus argentatus) [A184] • Wetland and Waterbirds [A999] According to this SPA's site Conservation Objectives document: NPWS 19 July 2011, Conservation Objectives: Dundalk Bay SPA [004026]. Version 1.0, Arts, Heritage and the Gaeltacht, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species for which the SPA has been selected.	improved grassland, has no history of supporting inland feeding wetland species, inc. golden plover, lapwing and gull species, and none of these species were recorded feeding or roosting within at least a 500m distance of the location for the proposed mast during baseline bird surveys over 2 years (2021-2023) for the proposed Kellystown Wind Farm development. During the above-mentioned baseline bird surveys, the following species were recorded flying within a distance of at least 500m of the location of the proposed met mast: golden plover, lapwing, black-headed gull, common gull, and herring gull. As these birds may be derived from the SPA, connectivity between the SPA and the site of the met mast cannot be ruled out. It is concluded that there is potential connectivity between the SPA and the site of the proposed mast due to flightlines of several SCIs in the area of the proposed mast.
North-West Irish Sea SPA (site code: 004236)	**Qualifying Interests** • Red-throated Diver (Gavia stellata) [A001] • Great Northern Diver (Gavia immer) [A003]	The location for the proposed met mast is approximately 6km from the SPA (closest straight-line distance).

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	• Fulmar (Fulmarus glacialis) [A009] • Manx Shearwater (Puffinus puffinus) [A013] • Cormorant (Phalacrocorax carbo) [A017] • Shag (Phalacrocorax aristotelis) [A018] • Common Scoter (Melanitta nigra) [A065] • Little Gull (Larus minutus) [A177] • Black-headed Gull (Chroicocephalus ridibundus) [A179] • Common Gull (Larus canus) [A182] • Lesser Black-backed Gull (Larus fuscus) [A183] • Herring Gull (Larus argentatus) [A184] • Great Black-backed Gull (Larus marinus) [A187] • Kittiwake (Rissa tridactyla) [A188] • Roseate Tern (Sterna dougallii) [A192] • Common Tern (Sterna hirundo) [A193] • Arctic Tern (Sterna paradisaea) [A194] • Little Tern (Sterna albifrons) [A195] • Guillemot (Uria aalge) [A199] • Razorbill (Alca torda) [A200] • Puffin (Fratercula arctica) [A204 Acccording to this SPA's site Conservation Objectives document: NPWS 19 Sept 2023, Conservation Objectives: North-west Irish Sea SPA [004236[. Version 1.0, Department of Housing, Local Government and Heritage, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species for which the SPA has been selected.	The area of the met mast drains into the SPA via the Drumshallon Lough Stream and enters the sea downstream of Termonfeckin (distance of c.8.5km). The habitat at the site for the proposed met mast, improved grassland, has no history of supporting inland feeding wetland species, inc. black-headed gull, common gull, lesser black-backed gull and herring gull, and none of these species were recorded feeding or roosting within at least a 500m distance of the location for the proposed mast during during baseline bird surveys over 2 years (2021-2023) for the proposed Kellystown Wind Farm development. During the above-mentioned bird surveys, the following species were recorded flying within a distance of at least 500m of the location of the proposed met mast: black-headed gull, common gull, lesser black-backed gull, herring gull, and great black-backed gull. As these birds may be derived from the SPA, connectivity between the SPA and the site of the met mast cannot be ruled out. It is concluded that there is connectivity between the location for the proposed mast and the SPA via the Drumshallon Lough Stream and potential connectivity due to flightlines of several SCIs in the area of the proposed mast.

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
Boyne Estuary SPA (site code: 004080)	**Qualifying Interests** • Shelduck (Tadorna tadorna) [A048] • Oystercatcher (Haematopus ostralegus) [A130] • Golden Plover (Pluvialis apricaria) [A140] • Grey Plover (Pluvialis squatarola) [A141] • Lapwing (Vanellus vanellus) [A142] • Knot (Calidris canutus) [A143] • Sanderling (Calidris alba) [A144] • Black-tailed Godwit (Limosa limosa) [A156] • Redshank (Tringa totanus) [A162] • Turnstone (Arenaria interpres) [A169] • Little Tern (Sterna albifrons) [A195] • Wetland and Waterbirds [A999] According to this SPA's site Conservation Objectives document: NPWS 26 Feb 2013, Conservation Objectives: Boyne Estuary SPA [004080]. Version 1.0, Arts, Heritage and the Gaeltacht, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species for which the SPA has been selected.	The location for the proposed met mast is approximately 7km from the SPA (closest straight-line distance). The area of the met mast is not within the catchment of the River Boyne. The habitat at the site for the proposed met mast, improved grassland, has no history of supporting inland feeding wetland species, inc. golden plover and lapwing, , and none of these species were recorded feeding or roosting within at least a 500m distance of the location for the proposed mast during baseline bird surveys over 2 years (2021-2023) for the proposed Kellystown Wind Farm development. During the above-mentioned bird surveys, golden plover and lapwing were recorded occasionally flying within a distance of at least 500 m of the location of the proposed met mast. As these birds may be derived from the SPA, connectivity between the SPA and the site of the met mast cannot be ruled out. It is concluded that there is potential connectivity between the location for the proposed mast and the SPA due to flightlines of two of the SCIs in the area of the proposed mast.
River Nanny Estuary and Shore SPA (site code: 004158)	**Qualifying Interests** • Oystercatcher (Haematopus ostralegus) [A130] • Ringed Plover (Charadrius hiaticula) [A137] • Golden Plover (Pluvialis apricaria) [A140]	The location for the proposed met mast is approximately 13km from the SPA (closest straight-line distance). The area of the met mast

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	• Knot (Calidris canutus) [A143] • Sanderling (Calidris alba) [A144] • Herring Gull (Larus argentatus) [A184] • Wetland and Waterbirds [A999] According to this SPA's site Conservation Objectives document: NPWS 21 Sept 2012, Conservation Objectives: River Nanny Estuary and Shore SPA [004158]. Version 1.0, Arts, Heritage and the Gaeltacht, for each of the listed SCIs, the Conservation Objective is to maintain the favourable conservation condition of the species for which the SPA has been selected.	does not drain towards the River Nanny system. The habitat at the site for the proposed met mast, improved grassland, has no history of supporting inland feeding wetland species, inc. golden plover, and this species was not recorded feeding or roosting within at least a 500m distance of the location for the proposed mast during baseline bird surveys over 2 years (2021-2023) for the proposed Kellystown Wind Farm development. During the above-mentioned bird surveys, golden plover were recorded occasionally flying within a distance of at least 500m of the location of the proposed met mast. As these birds may be derived from the SPA, connectivity between the SPA and the site of the met mast cannot be ruled out. It is concluded that there is potential connectivity between the location for the proposed mast and the SPA due to flightlines of golden plover in the area of the proposed mast.
River Boyne and River Blackwater SPA (site code: 004232)	**Qualifying Interests** • Kingfisher (Alcedo atthis) [A229] According to the NPWS (2022) Conservation Objectives for River Boyne and River Blackwater SPA 004232. First Order Site-Specific Conservation Objective Version 1.0. Department of Housing, Local Government and Heritage, the Objectives are: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (as above)	The location for the proposed met mast is approximately 8.5km from the SPA (closest straight-line distance). The area of the met mast does not drain towards the River Boyne system. The site for the proposed met mast does not provide habitat to support kingfisher. It is concluded that there is

European Site	Reasons for designation (information correct as of 22nd January 2025) (*denotes a priority habitat)	Distance from Project Area and summary of connectivity
	•	no connectivity between the location for the proposed mast and the SPA.

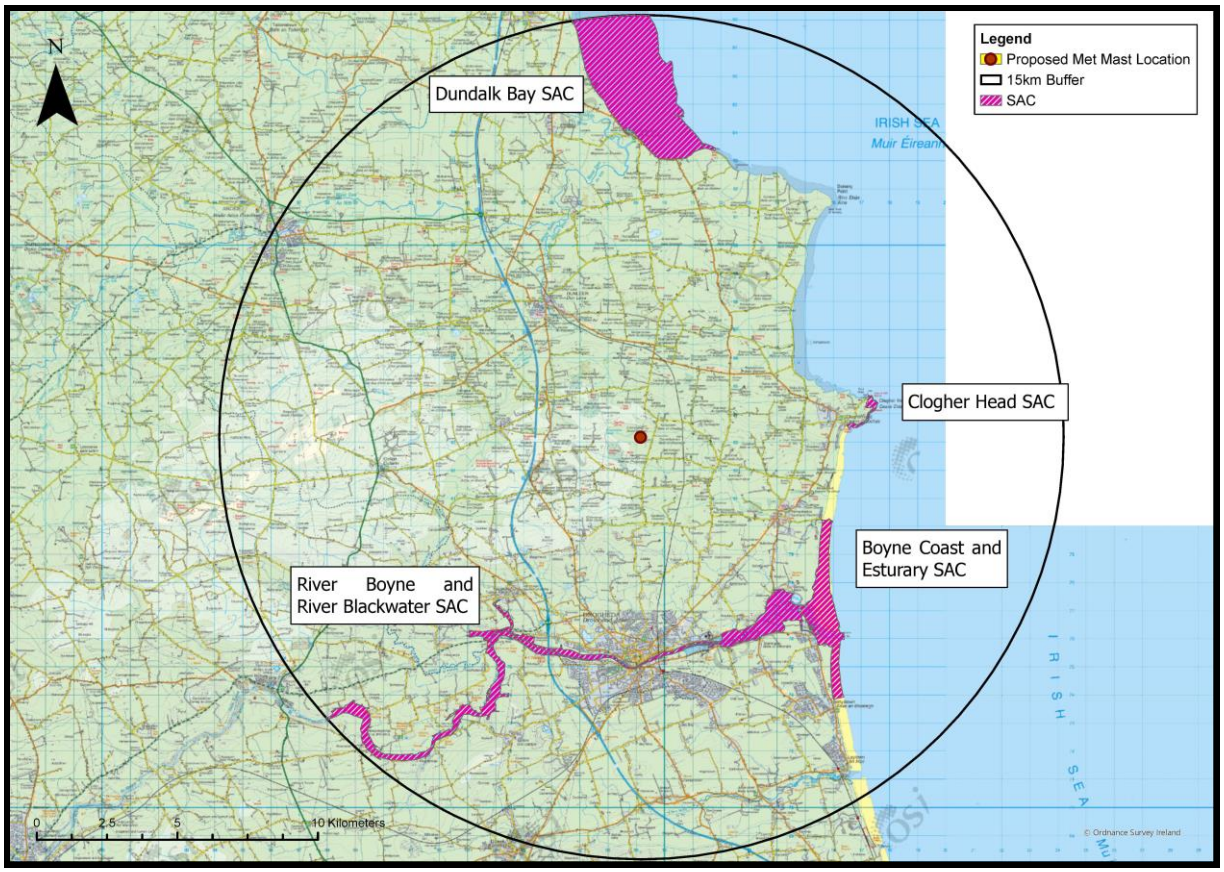

Figure 3. Distribution of Special Areas of Conservation (SACs) within a 15 km radius of proposed development site.

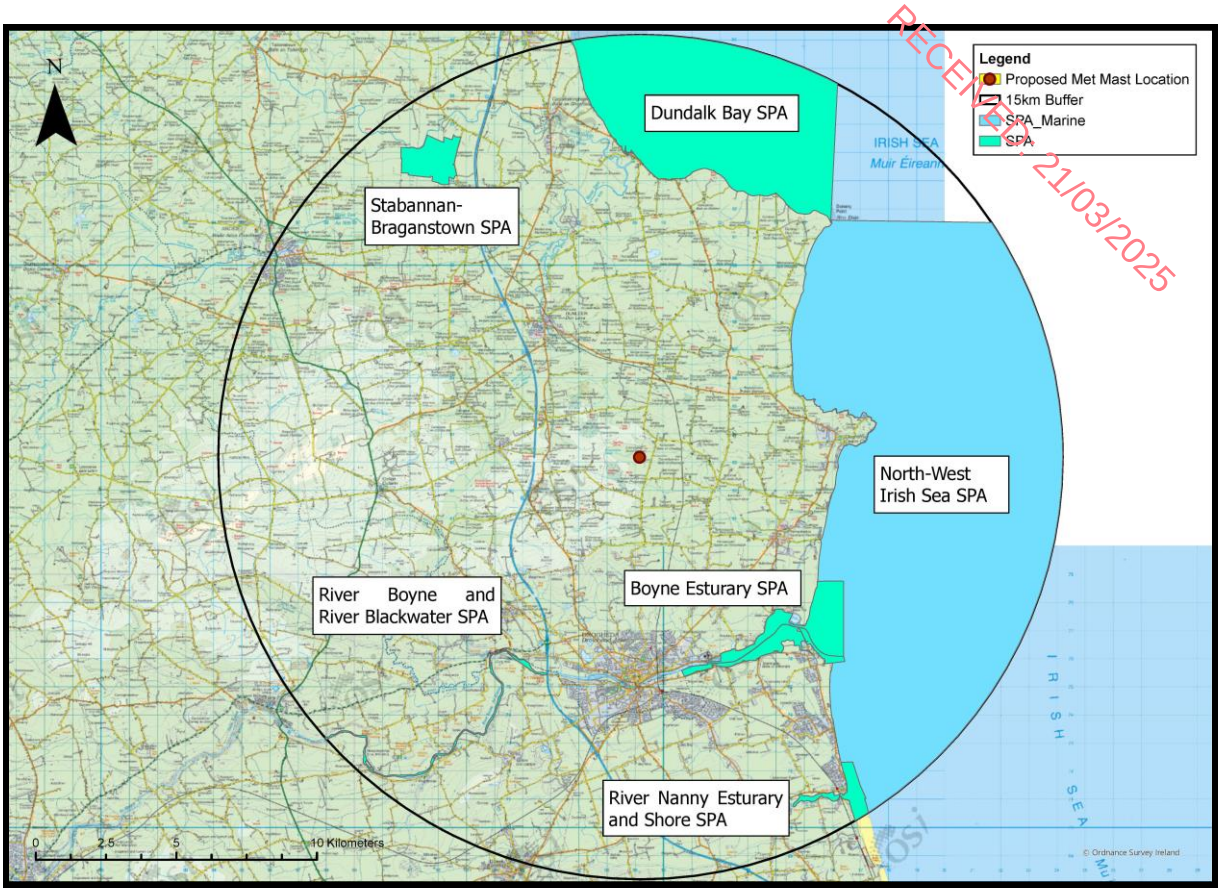

Figure 4. Distribution of Special Protection Areas (SPAs) within a 15 km radius of proposed development site.

2.4 Potential Effects in the Absence of Mitigation

Potential effects by the proposed project on European sites identified in the vicinity of the site are discussed below.

Impacts are considered in the context of the **Source-Pathway-Receptor** (S-P-R) conceptual model for environmental management risk assessment. This provides a systematic means of determining and evaluating the nature, effect and extent of exposure a vulnerable receptor may experience in relation to a particular hazard. For a risk to exist there must be a source (or hazard or pressure), a pathway, and a receptor (or target) (Daly, 2004). An environmental hazard is an event, or continuing process, which if realised will lead to circumstances having the potential to degrade, directly or indirectly, the quality of the environment (Royal Society, 1992). A pathway is a route by which a particle of water, substance or contaminant moves through the environment and comes into contact with, or otherwise, affects a receptor (Environment Agency, 2001).

2.4.1 Direct impacts on habitats and/or species during construction and operational phases

As outlined in Table 1, the site for the proposed temporary met mast is not within or adjacent to any designated European site. The closest site, the North-West Irish Sea SPA, is at a distance of approximately 6 km, while the other identified sites are at distances of between 7 km and 13 km.

On this basis, it can be concluded with full certainty that there could be no direct impacts, such as loss of habitat or physical disturbance of habitats or species, by the construction and/or operation phases of the proposed met mast on any European designated site.

2.4.2 Potential impacts by water pollution during construction and operational phases

As described in Table 1, two sites are identified which have potential hydrological connectivity with the location of the proposed met mast - these are Boyne Coast and Estuary SAC and North-West Irish Sea SPA. For both sites, connectivity is via the Drumshallon Lough Stream, with a channel distance of approximately 8.5 km between the locations. Consideration is given in the following on whether there is significant potential for pollutants (suspended solids) derived from the met mast development site to reach the European sites and to have effects on the qualifying interests of Special Conservation Interests.

Boyne Coast SAC

The Termonfeckin Stream enters the sea at the northern tip of the SAC, which is approximately 4 km north of the inner estuarine component of site. It is considered that the only listed habitats that could conceivably be affected by the entry of pollutants into this area are “Estuaries” and “Mudflats and sandflats not covered by seawater at low tide”. The other listed habitats (see Table 1) are all located within the inner estuarine sector of the site or along the beach above the high tide mark.

Table 2 lists the given attribute and target for each relevant habitat or species, as well as the distribution of the habitats and species within the designated site (all such information is contained within the Conservation Objectives for the sites).

Table 2: Boyne Coast and Estuary SAC: Attributes and Targets associated with identified Habitats and Species potentially affected by water pollution.

Habitat / Species	Relevant Attribute	Relevant Target	Distribution
Estuaries	Community distribution	Conserve the following community types in a natural condition: Intertidal estuarine mud and fine sand with Hediste diversicolor and Corophium volutator community; and Subtidal fine dominated by polychaete community.	Confined to the inner estuarine component of site.

Habitat / Species	Relevant Attribute	Relevant Target	Distribution
Mudflats and sandflats not covered by seawater at low tide	Community distribution	Conserve the following community types in a natural condition: Intertidal estuarine mud and fine sand with Hediste diversicolor and Corophium volutator community; and Fine sand dominated by bivalves community complex.	Fine sand dominated by bivalves community extends to the sandflats along the entire outer (beach) component of the site.

As described in **section 2.1**, the location for the mast is within a grassland field that drains towards the Drumshallon Lough Stream. The mast is at a distance of approximately 91 m from the stream, whilst the nearest guy rope anchor is at a distance of 21 m. However, there are no open drainage channels within the field in the area of the works. Also, as described in **section 2.2**, the works merely require three holes to be excavated (to depth c. 2 m) to accommodate the guy rope anchors. The excavated soil would be back-filled when works are complete (not more than 10 days duration). On this basis, it is considered that there is low potential for run-off to reach the local river during the course of the works.

In a worse-case scenario where some run-off of suspended solids entered the stream, it would flow within the channel for approximately 8.5 km before reaching the confluence with the sea (and the boundary of the SAC). With dilution and dispersion, the quantities entering the sea would be expected to be insignificant. Once within the marine environment, further dilution would occur immediately.

On the above basis, it is concluded that there is no realistic probability that significant quantities of suspended solids derived from the met mast site could be deposited onto the sand flats in the northern sector of the SAC and to have effects on the relevant infauna community, namely “fine sand dominated by bivalves community complex”.

Once the mast is operational, there is no potential for impacts on habitats within any coastal site.

North-West Irish Sea SPA

The Termonfeckin Stream flows into the sea below Termonfeckin where it mixes with the marine waters of the SPA. The Special Conservation Interests of the SPA are principally species associated with shallow marine waters, including divers, manx shearwater, common scoter and auks. The gull species (other than little gull), terns and cormorants are the species which may utilise the areas close to the shoreline though this is often for roosting purposes at low tide.

It is considered that once the waters of the Termonfeckin Stream enter the sea there would be immediate massive dilution and dispersion of any suspended solids that may have been carried in the stream from the met mast site.

As described for the Boyne Coast and Estuary SAC, only in a worse-case scenario would run-off of suspended solids from the works area have entered the stream in the first place. After flowing in the stream for approximately 8.5 km, the quantities entering the sea would be expected to be insignificant. And once within the marine environment, further dilution would occur immediately.

On the above basis, it is concluded that there is no realistic probability that significant quantities of suspended solids derived from the met mast site could be deposited into the marine waters of the SPA and to have effects on relevant infauna species, such as bivalves, that some seabirds may feed on.

Once the mast is operational, there is no potential for impacts on habitats within any coastal site.

2.4.3 Potential impact on ex-situ habitat for SCIs of SPAs

As described, the proposed met mast is situated within a field of improved grassland used as cattle pasture at time of survey. The grassland merges with scrub to the west.

During the baseline bird surveys (over 24 months 2021-2023) for the proposed Kellystown Wind Farm development, there were no observations of any wetland bird species which are listed as SCIs for the various SPAs (see **Table 1**) using the field for feeding and/or roosting purposes.

On this basis, it can be concluded with full scientific certainty that the proposed temporary mast development would not have any impacts by way of loss of habitat (which is negligible), displacement or disturbance to any SCI associated with the identified SPAs.

2.4.4 Potential bird collision risk

In the NatureScot (2016) Guidance (Assessment and mitigation of impacts of power liens and guyed meteorological masts on birds), note “It has long been known that overhead lines associated with power lines (and other man-made structures) present a hazard to birds”. Specifically, for meteorological masts, they write “their supporting guy wires can present a collision risk”. This can occur when a bird flies into a wire and is killed either from the impact, from hitting the ground, or from injuries sustained in the process.

The guy wires for the proposed met mast will comprise 3 no. groups of wires, each comprising 4 no. wires, extending to a height of 100 m.

As outlined in **Table 1**, the bird surveys (over 24 months, 2021-2023) for the proposed Kellystown Wind Farm development recorded the following species flying within 500 m of the location for the

met mast and thus presenting some risk of collision (though it is noted that the occurrences were infrequent and the numbers of birds involved low):

- Golden plover
- Lapwing
- Black-headed gull
- Common gull
- Lesser black-backed gull
- Herring gull
- Great black-backed gull

While the origin of the birds is not known, it is likely that most would be from any one of the coastal SPAs extending from Dundalk Bay to the River Nanny Estuary (see **Figure 3**). All of the listed species readily feed inland on grassland and arable fields during daylight hours and especially during periods of high tides.

As outlined in **Table 1**, the relevant SPAs which support these species are as follows:

- Dundalk Bay SPA
- North-West Irish Sea SPA
- Boyne Estuary SPA
- River Nanny Estuary and Shore SPA

While most of the birds recorded are likely to be from the closest of the SPAs, namely the North-West Irish SPA and the Boyne Estuary SPA, without specific information on the origin of the birds it has to be assumed that the birds could be associated with any one of the four identified SPAs.

It is concluded that in the absence of mitigation, the proposed met mast development presents a risk of collision to various Special Conservation Interests associated with the above listed SPAs.

2.5 AA Screening Concluding Statement

On the basis of objective scientific information, it is concluded that in the absence of mitigation, likely or possible significant effects on four of the European sites listed in **Table 1** (and listed below) could not be excluded during the operational stage of the proposed development:

- Dundalk Bay SPA (code 004026)
- North-West Irish Sea SPA (code 004236)
- Boyne Estuary SPA (code 004080)
- River Nanny Estuary and Shore SPA (code 004158)

As a result, it is respectfully submitted that for these sites the competent authority should carry out an Appropriate Assessment (AA) in respect of the Proposed Development. A Natura Impact Statement has been prepared to assist with the AA and is presented in Section 3 of this report.

For five of the other six sites within the identified zone of influence, no pathway was identified between the site for the proposed met mast (Source) and the relevant European site (Receptor). Therefore, it is concluded beyond reasonable scientific doubt, and in view of the best available scientific knowledge, that there is no potential for likely significant effects on the qualifying interests of these four sites as a result of the proposed Project when considered alone or in combination with other plans and projects. The five sites are:

- Clogher Head SAC (code 001459)
- River Boyne and River Blackwater SAC (code 002299)
- Dundalk Bay SAC (code 000455)
- Stabannan-Braganstown SPA (code 004091)
- River Boyne and River Blackwater SPA (code 004232)

For one further site, the Boyne Coast and Estuary SAC (code 001957), while hydrological connectivity with the met mast site exists, it is considered that there is no potential for significant effects on the relevant qualifying interests of the SAC.

Accordingly, it is concluded that no further assessment is required for these six sites and that they can be 'screened-out'. Measures intended to avoid or reduce the harmful effects of the Proposed Development on European sites, *i.e.* "mitigation measures", have not been taken into account in this screening stage appraisal.

3. NATURA IMPACT STATEMENT

The report on screening for Appropriate Assessment presented in Section 2 of this report concludes that potential impacts on four identified European sites may arise as a result of the proposed development, by way of bird collision risk, during the operational phases.

The identified sites are:

- Dundalk Bay SPA (code 004026)
- North-West Irish Sea SPA (code 004236)
- Boyne Estuary SPA (code 004080)
- River Nanny Estuary and Shore SPA (code 004158)

Mitigation will be implemented during the operational phase of the proposed development to avoid or reduce potential harmful effects of the proposed development on birds flying in the area of the mast which may be associated with the above-mentioned SPAs.

3.1 Measures to reduce collision risk to birds

As discussed in section 2.4.3 of this report, the presence of guy wires to support the mast presents some collision risk to bird species associated with the four identified SPAs. While the scale of the risk is not quantified, it is likely to be relatively low on the basis that the proposed mast location is at considerable distances (6-13 km) from the four identified SPAs. Also, during the baseline surveys from 2021 to 2023 for the proposed Kellystown Wind Farm project, the occurrences of the species in the area of the mast were infrequent and the numbers of birds involved low.

NatureScot (2016) notes that as there is currently no statistical model available which would provide a robust assessment of potential mortality, the recommendation is to put on mitigation.

Line marking remains the most common and practical form of wire collision mitigation worldwide, and research shows that it can reduce bird collisions for some species by 50-94% (evidence reviewed in Prinsens *et al.* 2011).

For the proposed Drumshallon mast project, in line with best practice, the markers will be installed at 10 m spacings, and will be in contrasting colours for maximum visibility in different weather and light conditions. Checks will be made at intervals to ensure that the markers remain in position and functional throughout the duration of the project, with corrected action taken as necessary.

With the placement of line markers on the guy wires following international best practice, and taking into account the distances between the mast location and the four relevant SPAs, it is considered that the risk of collision to passing birds will be reduced to a non-significant level.

3.2 Analysis of "In-combination" Effects

The Habitats Directive requires competent authorities to make an appropriate assessment of any plan or project which is likely to have a significant effect alone or in-combination with other plans and projects.

The present report has considered the possibility for impacts by a proposed temporary met mast at Drumshallon, Co. Louth on European sites. There are no other similar developments, *i.e*. met masts, within a distance of at least 5 km of the Drumshallon site.

The proposed Kellystown Wind Farm is currently in planning (planning ref.: 2460766). The NIS for that project did not identify any significant effects on the Special Conservation interests of any SPA as a result of the wind farm project.

There are a further five wind farm projects, which collectively have a total of 7 no. turbines (6 operational, 1 permitted), within a radius of 20 km of the Proposed Development site. The four operational projects are to the west of the Site and within the River Dee sub-catchment, with the closest at a distance of approximately 12 km from the Drumshallon mast site. The permitted WuXi Biologics project is to the north and within the Fane River catchment.

As the present met mast assessment carried out in this NIS concludes, with no reasonable scientific doubt, that the proposed development individually will not adversely affect the integrity of any of the relevant European sites, it is considered that there is no potential significant in-combination effect in conjunction with other energy projects.

In a local context, the proposed development site is located within a largely agricultural area with dispersed residences and occasional industrial/commercial operations (such as quarrying). The site is in proximity to the M1 motorway (c.3.5 km distance) and a main rail line (< 2 km distance).

All proposed developments in planning in the study area are subject to strict environmental assessment including AA Screening (where relevant).

Taking the above into account, it can be demonstrated objectively that when the proposed temporary met mast development at Drumshallon (which will not result in significant effects on any designated site) is considered along with other projects in the area, there will not be any in-combination effect on the European sites as discussed.

4. CONCLUSION

This Natura Impact Statement has considered the potential impacts of a proposed temporary met mast development at a site at Drumshallon, Co. Louth on the integrity of identified relevant European sites.

For the reasons set out in detail in this NIS, in the light of the best scientific knowledge in the field, all aspects of the proposed Project which, by itself or in combination with other plans or projects, which may affect the relevant European Sites have been considered.

The NIS contains information that Louth County Council, as competent authority, may consider in making its own complete, precise and definitive findings and conclusions as to the effects of the Proposed Development. It is respectfully submitted that the information contained in this NIS is such that the competent authority will be capable of determining that all reasonable scientific doubt has been removed as to the effects of the proposed Project on the integrity of the relevant European sites.

In conclusion, on the basis of the assessment set out in this NIS, it is respectfully submitted that the competent authority is able to determine that no reasonable scientific doubt remains that the Proposed Development will not adversely effect the integrity of any European site, in view of the conservation objectives of that site.'

5. REFERENCES

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