



APPENDIX 1

APPROPRIATE ASSESSMENT SCREENING REPORT

Appropriate Assessment Screening Report

Lyrenacarriga Wind Farm





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1. INTRODUCTION

MKO has been appointed to provide the information necessary to allow the competent authority to conduct an Article 6(3) Screening for Appropriate Assessment of a proposed wind energy development and all associated infrastructure at Lyrenacarriga and adjacent townlands, located in Counties Waterford and Cork.

The requirements for “Appropriate Assessment” (AA) are set out in Article 6 of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). According to the Habitats Directive, an AA is required of the implications for the European site concerned of any plan or project not directly connected with or necessary to the management of that site but likely to have a significant effect thereon, either individually or in combination with any other plans or projects prior to its approval, and to take into account the cumulative effects which result from the combination of that plan or project with other plans or projects (in-combination effects) in view of the European site’s conservation objectives. European Sites include Special Areas of Conservation (SAC) designated under the Habitats Directive, Special Protection Areas (SPA) designated under Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the Birds Directive).

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.

The current project is not directly connected with, or necessary for, the management of any European Site. Consequently, the project has been subject to the Appropriate Assessment Screening process.

The assessment in this report is based on a desk study and field surveys undertaken in 2018, 2019 and 2020. It specifically assesses the potential for the proposed development to result in significant effects on European sites in the absence of any best practice, mitigation or preventative measures.

This Appropriate Assessment Screening Report has been prepared in compliance with Part XAB of the Planning and Development Act 2000 as amended, the Planning and Development Regulations 2001 as amended and relevant jurisprudence of the European and Irish Courts. It was also prepared in accordance with the European Commission’s *Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC* (EC, 2002), *Managing Natura 2000 Sites: the provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC* (EC, 2018) as well as the Department of the Environment’s *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities* (December 2009, amended 11 February 2010) where relevant.

In addition to the guidelines referenced above, the following relevant documents were also considered in the preparation of this report:

1. *European Commission, 2020, Commission notice Guidance document on wind energy developments and EU nature legislation*
2. *Council of the European Commission (1992) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal of the European Communities. Series L 20, pp. 7-49.*
3. *EC (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.*
4. *EC (2007) Guidance document on Article 6(4) of the ‘Habitats Directive’ 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence. Opinion of the commission.*

5. *EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.*
6. *CIEEM (2018) Guidelines for Ecological Impact Assessment.*

1.1 Appropriate Assessment

1.1.1 Screening for Appropriate Assessment

Screening is the process of determining whether an Appropriate Assessment is required for a plan or project. Under Part XAB of the Planning and Development Act, 2000, as amended, screening must be carried out by the Competent Authority. As per Section 177U of the Planning and Development Act, 2000, as amended ‘*A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site*’. The Competent Authority’s determination as to whether an Appropriate Assessment is required must be made on the basis of objective information and should be recorded.

Where it cannot be excluded beyond reasonable scientific doubt at the Screening stage, that a proposed plan or project, individually or in combination with other plans and projects, would have a significant effect on the conservation objectives of a European site, an Appropriate Assessment is required.

The term Natura Impact Statement (NIS) is defined in legislation¹. An NIS, where required, should present the data, information and analysis necessary to reach a definitive determination as to 1) the implications of the plan or project, alone or in combination with other plans and projects, for a European site in view of its conservation objectives, and 2) whether there will be adverse effects on the integrity of a European site. The NIS should be underpinned by best scientific knowledge, objective information and by the precautionary principle.

This Article 6(3) Appropriate Assessment Screening Report has been prepared in compliance with the provisions of section 177U of the Planning and Development Act 2000 as amended.

1.1.2 Statement of Authority

Field assessments were undertaken by David McNicholas (B.Sc., M.Sc., MCIEEM), Irene Sullivan (B.Sc.) and Julie O’Sullivan (B.Sc., M.Sc.) in 2018, 2019 and 2020. David has over 10 years professional ecological consultancy experience. Julie is an experienced ecologist with over 5 years professional experience. Luke is an experienced ecologist with over 2 years professional ecological consultancy experience. Irene is an ecologist experience in undertaking habitat and ecological assessments. This report has been prepared by Julie O’Sullivan and David McNicholas.

Dedicated bird surveys of the site were undertaken between September 2016 to September 2018 and October 2019 to March 2020. The scope of works and survey methodology was devised by Chartered Ecologist Dr Patrick Crushell (PhD, MCIEEM). Field surveys were undertaken by Tony Nagle (MSc.), Alan McCarthy (BSc.) and Jack Kennedy (BSc.). All surveyors are competent experts in the field of ornithology. Incidental faunal sightings/signs were also recorded during bird surveys of the site and have also been included to inform this assessment.

¹ As defined in Section 177T of the Planning and Development Act, 2000 as amended, an NIS means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own and in combination with other plans and projects, for a European site in view of its conservation objectives. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for the European site in view of its conservation objectives



This report has been reviewed by John Hynes (B.Sc., M.Sc., MCIEEM). John is a highly experienced ecologist with 10 years' professional experience in environmental management and ecological assessment.

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Site Location

The proposed development site is located approximately 5 kilometres southeast of Tallow, Co. Waterford and approximately 15 kilometres northwest of Youghal Co. Cork. The proposed project is located in the townlands of Lyremountain, Lyre, Knockanarrig, Ballyanthony, Rearour North and Breeda in County Cork and in the townlands of Knockrour, Lyrenacarriga, Shanapollagh, Dunmoon South, Coolbeggan West, Propoge, Ballynatray Commons, Ballycondon Commons, Kilcalfmountain, Kilcalf West, Kilcalf East, Glennaglogh in County Waterford. The site location is shown in Figure 2.1 and layout in Figure 2.3.

2.2 Characteristics of the Proposed Development

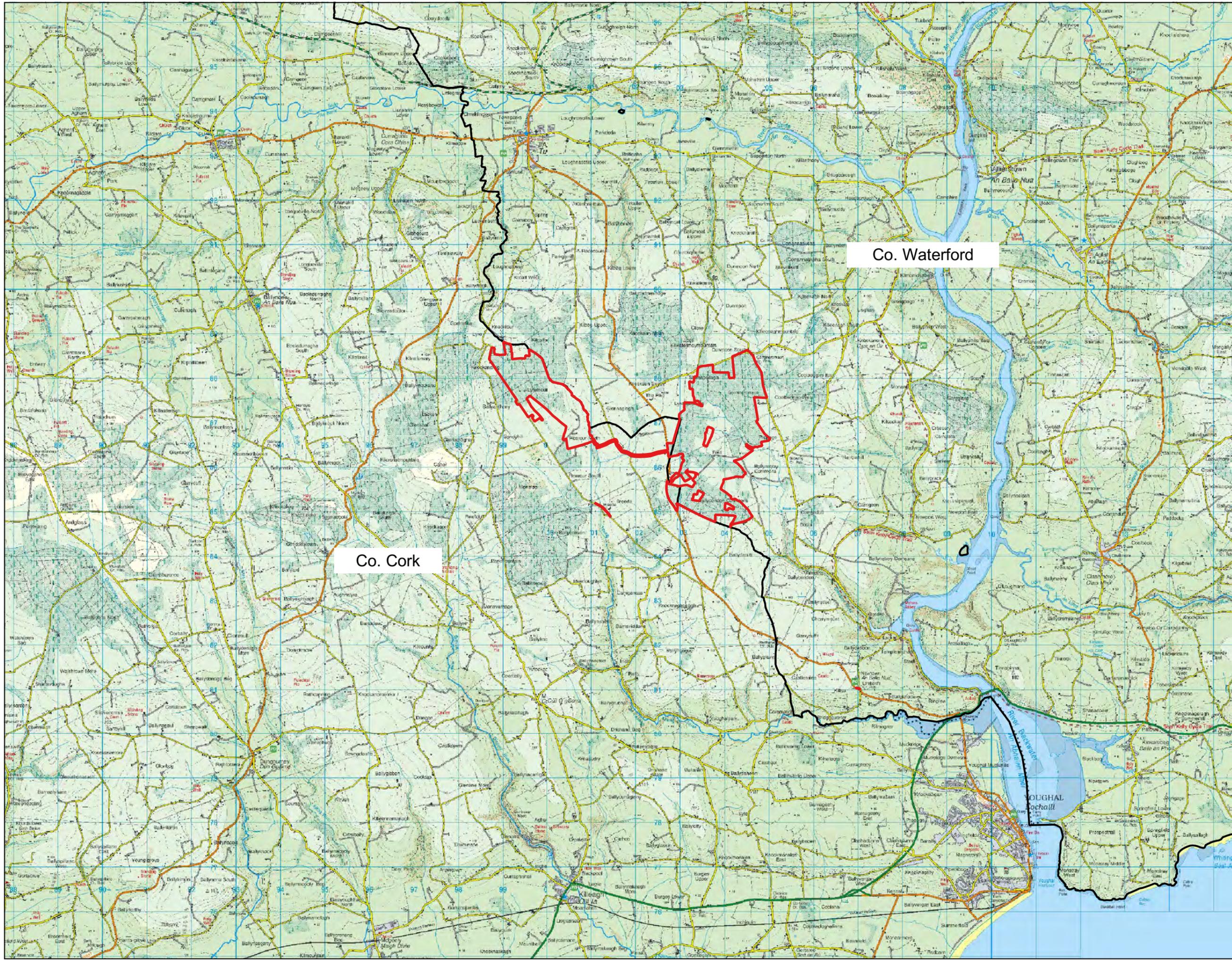
2.2.1 Description of the project

The Proposed Development comprises the provision of the following:

- i. Construction of up to 17 No. wind turbines with a maximum overall blade tip height of up to 150 metres;
- ii. 1 no. Meteorological Mast with a maximum height of up to 112 metres;
- iii. Construction of 1 no. staff welfare and storage facility including waste water holding tank;
- iv. 1 no. permanent 110 kV electrical substation with 2 no. control buildings with welfare facilities, 10 no. battery containers, battery switchgear building, all associated electrical plant and equipment, security fencing, all associated underground cabling, waste water holding tank and all ancillary works;
- v. Underground cabling connecting the turbines to the proposed substation and connection from the proposed substation to the national grid via a 110 kV loop in connection.
- vi. Upgrade of existing tracks, roads and provision of new site access roads and hardstand areas;
- vii. Construction of an access track in the townlands of Breeda and Rearour South to facilitate turbine delivery;
- viii. Junction improvement works in the townland of Killea to facilitate turbine delivery;
- ix. 3 no. borrow pits;
- x. 2 no. temporary construction compounds;
- xi. Site Drainage;
- xii. Forestry Felling;
- xiii. Signage; and
- xiv. All associated site development works.

All elements of the proposed project as described in this chapter, including grid connection, forestry felling and replanting and any works required on public roads to accommodate turbine delivery, have been assessed as part of this Screening assessment.

This application seeks a ten-year planning permission and 30-year operational life from the date of commissioning of the entire wind farm.



Co. Waterford

Co. Cork

Map Legend

-  County Boundary
-  Site Boundary



Site Location	
Project Title Lyrenacarriga Wind Farm	
Drawn By H. Witter	Checked By D. McNicholas
Project No. 170749	Drawing No. Figure 2-1
Scale 1:75000	Date 2021-01-05



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Map Legend

- Proposed 110 kV Substation
- Proposed Compound
- Proposed Borrow Pit
- Collector Cabling Route
- Proposed Met Mast
- Proposed Turbine Location
- Existing Road Proposed for Upgrade
- Proposed New Road
- Site Location
- Regional Road



MAP TITLE: Proposed Layout		MAP NO.: Figure 2-2	SCALE: 1:20,000
PROJECT TITLE: 170749 - Lyrenacarriga Wind Farm			DATE: 18-11-2020
DRAWING BY: L Meehan		CHECKED BY: Michael Watson	ISSUE NO.: 170749-2020.11.18-D2
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2.2.2 Description of the Baseline Ecological Environment

The majority of the study area is dominated by plantation forestry, comprising mainly of Sitka spruce (*Picea sitchensis*) and Lodgepole pine (*Pinus contorta*), see Plate 2.1, as well as large plantations of Eucalyptus (*Eucalyptus* sp.), see Plate 2.2. The site is accessible via a network of existing forestry access tracks and forestry rides. The remainder of the wind farm infrastructure site is dominated by Improved agricultural grassland (GA1) and Arable crops (BC1), see Plates 2.3 and 2.4.



Plate 2-1 Example of Conifer plantation (WD4) within the study area



Plate 2-2 Example of Eucalyptus plantation within the study area.



Plate 2-3 Improved agricultural grassland (GAI).



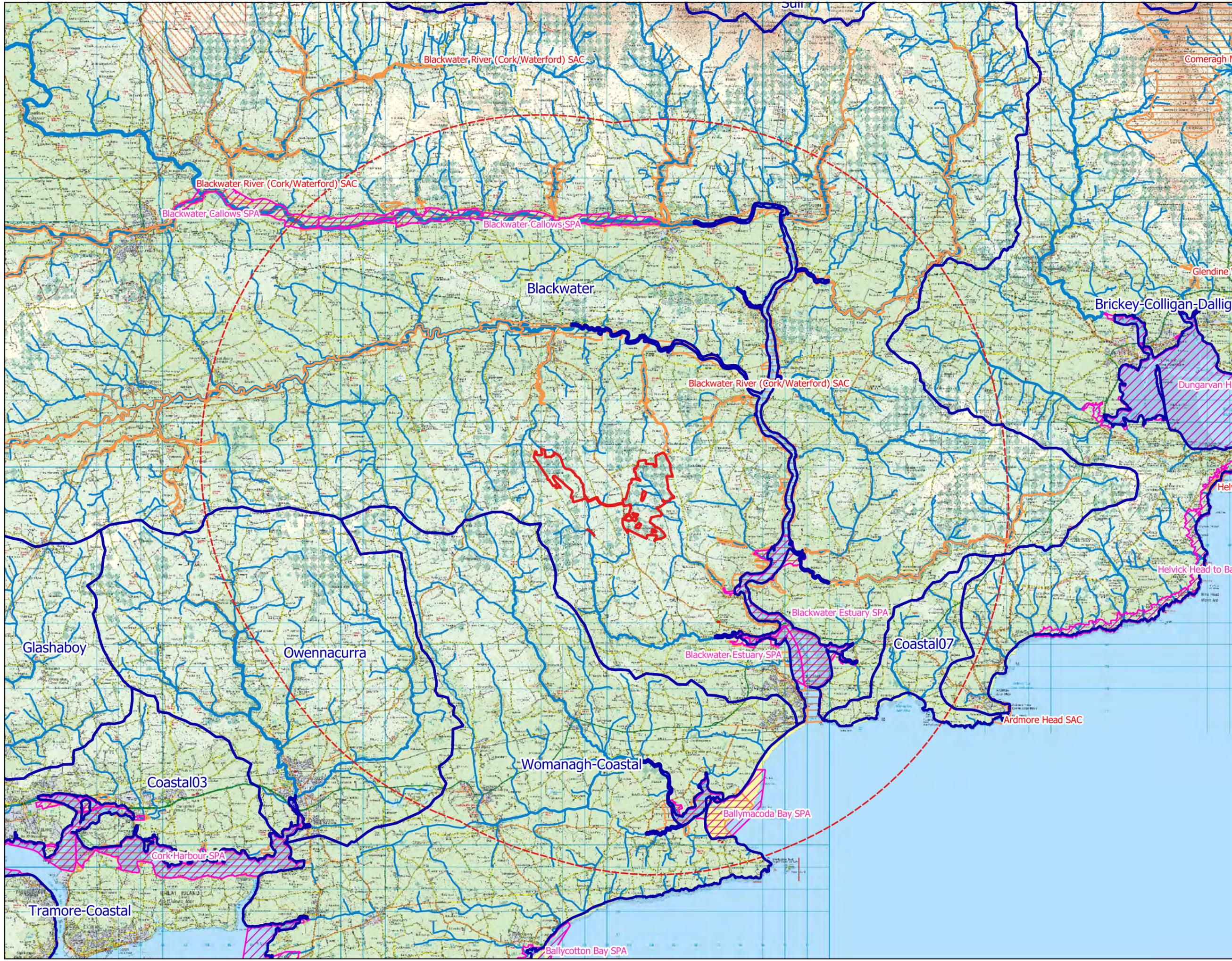
Plate 2-4 Example of arable lands occurring within the proposed development footprint.

3. IDENTIFICATION OF RELEVANT EUROPEAN SITES

3.1 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed development:

- Initially the most up to date GIS spatial datasets for European designated sites and water catchments were downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) on the 05/12/2020. The datasets were utilized to identify European Sites which could feasibly be affected by the proposed development.
- All European Sites within a distance of 15km surrounding the development site were identified and are shown on Figure 3.1. In addition, the potential for connectivity with European Sites at distances of greater than 15km from the proposed development was also considered in this initial assessment. In this case, potential connectivity with a European Site that is located at a distance of over 15km from the proposed development was identified. This was identified following review of aerial photography and hydrological catchment mapping as described above. Other European Sites that were located over 15 km from the proposed development were excluded as no pathway for significant effect was identified.
- The catchment mapping was used to establish or discount potential hydrological connectivity between the site of the proposed development and any European Sites. The hydrological catchments are also shown in Figure 3.1.
- Table 3.1 provides details of all relevant European Sites as identified in the preceding steps and assesses which are within the likely Zone of Impact.
- The results of the extensive bird surveys, carried out between September 2016 to September 2018 and October 2019 to March 2020, were consulted in the course of this screening exercise and provided information on whether the birds recorded on the site could potentially be associated with any European Site.
- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report.
- Where potential pathways for Significant Effect such as habitat or hydrological connectivity are identified, the site is included within the Likely Zone of Impact.



Map Legend

- 15km Site Buffer
- Site Boundary
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- EPA Mapped Watercourses
- EPA Catchments

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Drawing Title	
EU Designated Sites	
Project Title	
Lyrenacarriga Wind Farm	
Drawn By	Checked By
H. Witter	D. McNicholas
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Table 3-1 Identification of Designated Sites within the Likely Zone of Impact

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
Special Area of Conservation (SAC)				
Blackwater River (Cork/Waterford) SAC Distance: adjacent to the boundary of the proposed development site.	<ul style="list-style-type: none"> ➤ Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> ➤ White-clawed Crayfish <i>Austropotamobius pallipes</i> ➤ Sea Lamprey <i>Petromyzon marinus</i> ➤ Brook Lamprey <i>Lampetra planeri</i> ➤ River Lamprey <i>Lampetra fluviatilis</i> ➤ Twaité Shad <i>Alosa fallax</i> ➤ Atlantic Salmon <i>Salmo salar</i> (only in freshwater) ➤ Estuaries 	Detailed conservation objectives for this site (Version 1, July 2012) were reviewed as part of the assessment and are available at www.npws.ie	<p>This European Site is located adjacent to the north-eastern boundary of the proposed development site boundary, see Figure 3.1.</p> <p>There is no potential for direct impact as the proposed development is outside of the Special Area of Conservation (SAC) boundary. All proposed works occur outside the boundary of the SAC and there will be no direct impacts on habitats or species occurring within the SAC. Direct and indirect impacts on the following Qualifying Interests (QI) can be ruled out due to the terrestrial nature of the habitats/species, the separation in distance from the proposed works area and the absence of any complete source-pathway-receptor chain for impact:</p> <ul style="list-style-type: none"> ➤ Killarney Fern <i>Trichomanes speciosum</i> ➤ Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles ➤ * <i>Taxus baccata</i> woods of the British Isles ➤ Perennial vegetation of stony banks. <p>Hydrological connectivity has been identified between the proposed development and this SAC via watercourses within the site boundary, including the Glendine River, Tourig River, Glenaboy River and River Bride (see Section 10.3.16, Chapter 10 Water, provided in Appendix 2 of the accompanying NIS).</p>	Yes – Potential for significant effect has been identified and there is a need to progress to Stage 2 of the Appropriate Assessment process.

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	<ul style="list-style-type: none"> ➤ Mudflats and sandflats not covered by seawater at low tide ➤ Perennial vegetation of stony banks ➤ <i>Salicornia</i> and other annuals colonizing mud and sand ➤ Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) ➤ Otter <i>Lutra lutra</i> ➤ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ➤ Killarney Fern <i>Trichomanes speciosum</i> ➤ Watercourses of plain to montane 		<p>In the absence of mitigation, the proposed development has the potential to cause deterioration in water quality during the construction, operational and decommissioning phases, potentially affecting downstream aquatic receptors.</p> <p>According to the conservation objective supporting document (NPWS, 2012), the populations of Freshwater Pearl Mussel for which the SAC has been designated occur within two tributaries (Owentaraglin and Allow) and the Licky River of the Blackwater River. This is shown in Map 8 of the site-specific conservation objectives document. The population of Freshwater Pearl Mussel designated as a QI of this SAC occurs within separate catchments to that of the proposed development site. Therefore, no pathway for direct impact exists. However, as freshwater pearl mussel also depend on host fish species, either Atlantic salmon or brown trout, in part of their reproduction cycle, the species has been identified for further assessment from a highly precautionary approach.</p> <p>According to Map 9 of the site-specific conservation objectives document, the objective is to maintain the population range identified in MAP 9. The population of Freshwater Crayfish designated as a QI of this SAC, is located in the Awbeg River, within a separate catchment to the proposed development site. Therefore, no pathway for impact exists and further assessment is not required.</p> <p>The proposed works have the potential to cause deterioration in water quality during construction works, potentially affecting the following downstream aquatic habitats and supporting habitats for aquatic fauna:</p> <ul style="list-style-type: none"> ➤ Sea Lamprey <i>Petromyzon marinus</i> 	

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	<ul style="list-style-type: none"> levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche Batrachion</i> vegetation ➤ Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles ➤ *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno- Padion</i>, <i>Alnionincanae</i>, <i>Salicionalbae</i>) ➤ *<i>Taxus baccata</i> woods of the British Isles 		<ul style="list-style-type: none"> ➤ Brook Lamprey <i>Lampetra planeri</i> ➤ River Lamprey <i>Lampetra fluviatilis</i> ➤ Twaitte Shad <i>Alosa fallax</i> ➤ Atlantic Salmon <i>Salmo salar</i> (only in freshwater) ➤ Estuaries ➤ Mudflats and sandflats not covered by seawater at low tide ➤ Salicornia and other annuals colonizing mud and sand ➤ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) ➤ Otter (<i>Lutra lutra</i>) ➤ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ➤ Watercourses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche Batrachion</i> vegetation ➤ *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno- Padion</i>, <i>Alnionincanae</i>, <i>Salicionalbae</i>) <p>The proposed development also has the potential to cause disturbance/displacement related effects to Otter during construction operational and decommissioning phases of the development. For this reason and from a precautionary perspective, further assessment is required.</p> <p>This SAC is therefore within the likely zone of impact, and further assessment is required.</p>	
Ballymacoda (Clonpriest and Pillmore) SAC Distance: 10.7km	<ul style="list-style-type: none"> ➤ Estuaries ➤ Mudflats and sandflats not covered by 	Detailed conservation objectives for this site (Version 2, February 2015)	This European Site is located 10.7km south-east of the proposed works area. There is no potential for direct impact as the proposed development is outside of the SAC boundary. There is no potential for indirect effects on supporting QI habitats with regard to surface water pollution. The watercourses that discharge to the Atlantic Ocean and subsequently this coastal/marine SAC are	None

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	seawater at low tide > <i>Salicornia</i> and other annuals colonising mud and sand > Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)	were reviewed as part of the assessment and are available at www.npws.ie	located within a separate sub-catchment to the proposed development. Consequently, no hydrological connectivity or pathway for impact exists. <i>No pathways for significant effect on the European Site was identified. Thus, it can be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the European site, that the proposed development, individually or in combination with other plans and projects, would therefore not have the potential to have a significant effect on this European Site.</i>	
Special Protection Area (SPA)				
Blackwater Estuary SPA Distance: 3.5km	> Wigeon <i>Anas Penelope</i> (wintering population) > Golden Plover <i>Pluvialis apricaria</i> (wintering population) > Lapwing <i>Vanellus vanellus</i> (wintering population)	Detailed conservation objectives for this site (Version 1, May 2012) were reviewed as part of the assessment and are available at www.npws.ie	This European Site is 3.5km to the south-east of the development site. There is no potential for direct impact as the proposed development is outside of the Special Protected Area (SPA) boundary. However, as golden plover were recorded within the site, potential for direct effect on the species, occurring outside of the SPA has been identified in the form of collision risk. Wigeon, Lapwing, Dunlin, Black-tailed Godwit, Bar tailed Godwit, Curlew and Redshank are all designated for their wintering populations in the SPA. Wintering populations of these species are associated with coastal habitats. There is no suitable habitat within the proposed development site for wintering populations of these species. Therefore, no potential for impact on supporting wetland habitats is fully considered under the [A999] wetlands and waterbirds SCI.	Yes – Potential for significant effect has been identified and there is a need to progress to Stage 2 of the Appropriate Assessment process.

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	<ul style="list-style-type: none"> ➤ Dunlin <i>Calidris alpine</i> (wintering population) ➤ Black-tailed Godwit <i>Limosa limosa</i> (wintering population) ➤ Bar tailed Godwit <i>Limosa lapponica</i> (wintering population) ➤ Curlew <i>Numenius arquata</i> (wintering population) ➤ Redshank <i>Tringa tetanus</i> (wintering population) ➤ Wetlands and Waterbirds 		<p>A potential pathway for indirect effects was identified in the form of bird disturbance and displacement to Golden Plover where they occur outside of the designated site. Golden Plover were recorded regularly onsite during winter months. Due to the nature and timing of these observations and the proximity of the site from the SPA, the potential for significant effects on this Special Conservation Interests (SCI) species cannot be excluded and further assessment is required.</p> <p>There is connectivity between the proposed development and this SPA via watercourses within the site boundary, including the Glenaboy, the Glendine and the Tourig Rivers.</p> <p>The proposed construction, operational and decommissioning works have the potential to cause deterioration of water quality, potentially affecting the downstream SCI ‘Wetland and Waterbirds’. Impact to supporting wetland habitat for all SCI species is considered under the wetland and waterbirds designation.</p> <p>This SPA is therefore within the likely zone of impact, and further assessment is required.</p>	
<p>Blackwater Callows SPA</p> <p>Distance: 9.9km</p>	<ul style="list-style-type: none"> ➤ Whooper Swan <i>Cygnus Cygnus</i> (wintering population) ➤ Wigeon <i>Anas Penelope</i> 	<p>This site has the generic conservation objective:</p> <p>‘To maintain or restore the</p>	<p>This European Site is 9.9km to the north of the development site. There is no potential for direct impact as the proposed development is outside of the SPA boundary.</p> <p>This SPA is in a separate hydrological catchment and does not have connectivity with the proposed development site. Therefore, there is no is potential for indirect effects on supporting wetland habitat with regard to surface water pollution.</p>	<p>None</p>

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	<p>(wintering population)</p> <ul style="list-style-type: none"> ➤ Teal <i>Anas crecca</i> (wintering population) ➤ Black-tailed Godwit <i>Limosa limosa</i> (wintering population) ➤ Wetlands and Waterbirds 	<p>favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.’</p> <p>And the additional objective:</p> <p>‘To maintain or restore the favourable conservation condition of the wetland habitat at Blackwater Callows SPA as a resource for the regularly-occurring migratory waterbirds that utilise it’</p>	<p>Wigeon, teal and black-tailed godwit are all designated for their wintering populations. These SCI species were not recorded during the extensive suite of bird surveys carried out. There is no suitable habitat within the proposed development site for wintering populations of these species given the extent of plantation forestry occurring within the study area. The site is also located outside the zone of sensitivity of any species that is listed as particularly sensitive to wind energy development in Mc Guinness et.al (2015). There is therefore no potential for impact.</p> <p>The proposed development site is not located within the core foraging range of wintering Whooper swan, which is listed as less than 5km, as per SNH guidelines (2016). Whooper swan were only recorded on one occasion during dedicated bird surveys of the development. Consequently, the potential for direct and indirect impacts on whooper swan populations associated with the Blackwater Callows SPA can be discounted.</p> <p><i>No pathways for significant effect on the European Site was identified. Thus it can be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the European site, that the proposed development, individually or in combination with other plans and projects, would therefore not have the potential to have a significant effect on this European Site.</i></p>	

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
Ballymacoda Bay SPA Distance: 10.7km	<ul style="list-style-type: none"> ➤ Wigeon <i>Anas Penelope</i> (Wintering) ➤ Teal <i>Anas crecca</i> (Wintering) ➤ Ringed Plover <i>Charadrius hiaticula</i> (Wintering) ➤ Golden Plover <i>Pluvialis apricaria</i> (Wintering) ➤ Grey Plover <i>Pluvialis squatarola</i> (Wintering) ➤ Lapwing <i>Vanellus vanellus</i> (Wintering) ➤ Sanderling <i>Calidris alba</i> (Wintering) ➤ Dunlin <i>Calidris alpina alpina</i> (Wintering) 	Detailed conservation objectives for this site (Version 1, February 2015) were reviewed as part of the assessment and are available at www.npws.ie	<p>This European Site is 10.7km to the south-east of the development site. There is no potential for direct impact as the proposed development is outside of the SPA boundary.</p> <p>There is no potential for indirect effects on supporting SCI habitats with regard to surface water pollution. The watercourses that discharge to the Atlantic Ocean and subsequently this coastal/marine SPA are located within a separate sub-catchment to the proposed development. Consequently, no hydrological connectivity or pathway for impact exists.</p> <p>All SCI species of this SPA are designated for their wintering populations within this SPA, with notable concentrations of Lesser Black-backed Gull.</p> <p>The SPA is designated for wintering populations of Wigeon, Teal, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank and Turnstone that are associated with coastal habitats. There is no suitable habitat within the proposed development site for wintering populations of these species, and they were not recorded during the surveys undertaken. The site is also located outside the zone of sensitivity of any species that is listed as particularly sensitive to wind energy development in Mc Guinness et.al (2015).</p> <p>Common Gull (<i>Larus canus</i>) (Wintering) were not recorded during the dedicated bird surveys as is therefore excluded from further assessment.</p>	Yes – Potential for significant effect has been identified and there is a need to progress to Stage 2 of the Appropriate Assessment process.

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	<ul style="list-style-type: none"> ➤ Black-tailed Godwit <i>Limosa limosa</i> (Wintering) ➤ Bar-tailed Godwit <i>Limosa lapponica</i> (Wintering) ➤ Curlew <i>Numenius arquata</i> (Wintering) ➤ Redshank <i>Tringa totanus</i> (Wintering) ➤ Turnstone <i>Arenaria interpres</i> (Wintering) ➤ Black-headed Gull <i>Chroicocephalus ridibundus</i> (Wintering) ➤ Common Gull <i>Larus canus</i> (Wintering) 		<p>The wind farm site is located within the potential core foraging range of the following SCI species as per Thaxter <i>et.al</i> (2012) and Gillings and Fuller (1999)²:</p> <ul style="list-style-type: none"> ▪ Lesser black-backed gull (<i>Larus fuscus</i>) ▪ Black-headed Gull (<i>Chroicocephalus ridibundus</i>) (Wintering) ▪ Golden Plover (<i>Pluvialis apricaria</i>) <p>In addition, lesser black-backed gull, black-headed gull and golden plover were recorded during the extensive suite of bird surveys undertaken. Common gull was not recorded during the extensive suite of bird surveys undertaken. Although it is unlikely that any birds recorded during surveys are associated with the SPA populations, an assessment of ex-suite collision risk and disturbance/displacement is considered on a highly precautionary basis.</p> <p>The potential for significant effects on these SCI species cannot be excluded and further assessment is required in terms of ex-suite collision risk and disturbance/displacement. The site of the proposed development is dominated by plantation forestry and does not provide suitable supporting habitat for these species.</p> <p>This SPA is therefore within the likely zone of impact, and further assessment is required.</p>	

² Gillings, S & Fuller, R.J. 1999. Winter ecology of Golden Plovers and Lapwings: a review and consideration of extensive survey methods. Research Report no. 224. ISBN: 1-902576-18-7 56pp

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 05/12/2020)	Conservation Objectives	Likely Zone of Impact Determination	Possibility of Significant Effects? (If Yes Progress To Stage 2 Of AA Process)
	<ul style="list-style-type: none"> ➤ Lesser Black-backed Gull <i>Larus fuscus</i> (Wintering and concentration) ➤ Wetlands and Waterbirds 			

3.2

Likely Cumulative Impact of the Proposed Works on European Sites, in-combination with other plans and projects

Where the potential for significant effects on European Sites has been identified in the preceding sections of this document, there is potential for the proposed development to result in in-combination effect. This potential is addressed in the NIS that accompanies this application.

Where no pathway for effect on a particular European Site was identified, there is no potential for effects to occur as a result of the proposed development when considered on its own. Therefore, it cannot contribute to any in-combination effects on that site when considered in combination with other plans and projects and no further assessment is required.

4. **ARTICLE 6(3) APPROPRIATE ASSESSMENT SCREENING STATEMENT AND CONCLUSIONS**

Following an examination, analysis and evaluation of the relevant data and information set out within this Screening Report, it cannot be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, would be likely to have a significant effect on the following sites:

- Blackwater River (Cork/Waterford) SAC,
- Blackwater Estuary SPA, and
- Ballymacoda Bay SPA.

As a result, an Appropriate Assessment is required, and a Natura Impact Statement has been prepared in respect of the proposed development in order to assess whether the proposed development will adversely impact the integrity of these European Sites.

No pathways for significant effect on any other European Site were identified. Thus it can be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, would be likely to have a significant effect on any other European Sites, other than Blackwater River (Cork/Waterford) SAC, Blackwater Estuary SPA and Ballymacoda Bay SPA.

5. BIBLIOGRAPHY

Bailey, M. and Rochford J. (2006) Otter Survey of Ireland 2004/2005. Irish Wildlife Manuals, No. 23. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Balmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. and Fuller, R.J. (2013). Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland. BTO Books, Thetford, UK.

Barbour, M.T. and J.B. Stribling. (1991) Use of Habitat Assessment in Evaluating the Biological Integrity of Stream Communities. Biological Criteria: Research and Regulation: 25-38. EPA-440/5-91-005. Washington, DC: Office of Water, US EPA.

Birds Directive (2009/47/EC) – http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm

CIEEM, 2019, Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine.

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) and Directive 2009/147/EC (codified version of Directive 79/409/EEC as amended) (Birds Directive) – transposed into Irish law as European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011).

DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. DEHLG, Dublin.

DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revision, February, 2010. Department of the Environment, Heritage and Local Government.

EC (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission.

EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC.

EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission.

EC (2006) Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg.

EC (2007a) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Office for Official Publications of the European Communities, Luxembourg. European Commission.

EC (2007b) Interpretation Manual of European Union Habitats. Version EUR 27. European Commission, DG Environment.

European Communities (Conservation of Wild Birds) Regulations, 1985, SI 291/1985 & amendments – <http://www.irishstatutebook.ie>.

European Communities (Natural Habitats) Regulations, SI 94/1997, SI 233/1998 & SI 378/2005 – <http://www.irishstatutebook.ie>.

Fossitt, J. A. (2000). A Guide to Habitats in Ireland. Dublin: The Heritage Council.

Habitats Directive (92/43/EEC).

Murphy, D.F. (2004) Requirements for the Protection of Fisheries Habitat During Construction and Development Works at River Sites. Eastern Regional Fisheries Board, Dublin.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O’Neill.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O’Neill.

NPWS Protected Site Synopses and maps available on <http://www.npws.ie/en/ProtectedSites/>.

NRA (2004) Environmental Impact Assessment of National Road Schemes – A Practical Guide, National Roads Authority, Dublin.

NRA (2004) Guidelines for the Treatment of Noise and Vibration in National Road Schemes (1 ed.). Dublin: National Roads Authority.

NRA (2005) Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes. Dublin: National Roads Authority.

NRA (2006) Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes. Dublin: National Roads Authority.

NRA (2009). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes. Dublin: National Roads Authority.

NRA (2008). The Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads. Dublin: National Roads Authority.

Scottish Natural Heritage (SNH) (July 2013) Assessing Connectivity with Special Protection Areas (SPA)

Stace, C. A. (1997). New Flora of the British Isles. Cambridge: Cambridge University Press.

Therivel R. (2009) Workshop Material on the Habitats Directive Assessment of Plans Levett-Therivel Sustainability Consultants on behalf of the Heritage Council, Kilkenny.

Therivel, R. (2009) ‘Appropriate assessment of plans in England’, Environmental Impact Assessment Review 29(4), pp. 261-272.