12. LANDSCAPE AND VISUAL

12.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) is a landscape and visual impact assessment (LVIA) of the proposed Coole Wind Farm development (Proposed Development). The emphasis in this chapter is on the likely significant effects of the Proposed Development. It includes a description of the assessment methodology, a description of the Proposed Development, and the existing landscape based on relevant guidance. It includes a description of the landscape policy of County Westmeath with specific reference to wind energy and the study area in which the Proposed Development site is located. A full description of all elements of the Proposed Development is presented in Chapter 4 of this EIAR and this forms the basis for the assessment. In general, the Proposed Development comprises 15 no. turbines, access roads, onsite substation borrow pits, temporary construction compound, forestry felling, the Grid Connection Route (26 km long running from the proposed wind farm site to Mullingar substation) and the Proposed Turbine Delivery Route (junction accommodation works and all associated works).

As detailed in Section 2.5.1, Chapter 2 of this EIAR, there is a current grant of permission on the Proposed Development site for a wind farm consisting of up to 13 no. wind turbines with a tip-height of 175 metres, upgrading existing internal access roads, providing new internal access roads, an on-site substation, underground cabling, temporary construction compound, and ancillary infrastructure. An Bord Pleanála issued the decision to grant permission for the wind farm on 27th March 2020.

The inspector's report cited reasons and considerations for granting permission for the 13-turbine wind farm. The Landscape and Visual specific rational;

- *The location of the wind farm site primarily on flat peatlands, which are acknowledged within the Wind Energy Development Guidelines - Guidelines for Planning Authorities and the Midland Regional Planning Guidelines, 2010-2022, as having the potential to accommodate large scale energy production in the form of wind farms;*
- *The character of the landscape in the area and the absence of any ecological designations on the site,*
- *The pattern of existing and permitted development in the area,*
- *The distance to dwellings and other sensitive receptors from the proposed development.*

The Proposed Development will comprise of 15 No. wind turbines with a tip height of 175 metres, the locations of the permitted 13 turbine layout are unchanged. The proposed rotor diameter of the 15 Turbines is up to 155m. The landscape of the area is described in terms of its existing character, including a description of landscape values and the landscape's sensitivity to change. The landscape and visual impact assessment of the Proposed Development uses visibility mapping, representative viewpoints, and photomontages. The potential impacts in both landscape and visual terms are then assessed, including cumulative impacts.

The Proposed Development is being brought forward in response to local, national, regional, and European policies regarding Ireland's transition to a low carbon economy and associated climate change policy objectives. As outlined in the Westmeath County Development Plan 2014-2020, the Westmeath Wind Energy Strategy has designated the capacity of areas for wind energy development as either 'No Capacity' or 'Low Capacity'. The site of the Proposed Development is located within an area designated in the Westmeath County Development Plan, 2014-2020 as 'Low Capacity' for wind energy development.

12.1.1 Author Information and Competency

Name: Kathryn Blade

Title: Landscape Architect, MKO

Qualifications: BSc (Hons) Landscape Architecture, LMLI

Kathryn Blade is a Landscape Architect who has specialist experience in conducting Landscape and Visual Impact assessments for projects ranging from urban and suburban developments to renewable energy projects as well as industrial, electricity, and road infrastructure developments. She has a comprehensive track record in developing and managing landscape and visual impact assessments for both public and private clients. Kathryn is currently a Licentiate Member of the Landscape Institute and is on the pathway to achieving full Chartership (CMLI) status. Kathryn holds a BSc (Hons) in Landscape Architecture from University College Dublin. She is currently undertaking an RTPI and IPI accredited Professional Master's program in Spatial Planning with Technical University Dublin (former DIT).

Kathryn has developed and prepared EIA & EIAR chapters as part of the MKO Landscape and Visual Impact Assessment team, including character assessments, feasibility studies, site suitability assessments and associated mapping. She has also produced residential visual impact assessments of individual private properties, manages the production of photomontages and the preparation of ZTV/TVI mapping and has been supervising the required maintenance period for mitigation planting schemes.

Kathryn was aided by Jack Workman and Michael Watson who went on to further refine, finalise and complete the impact assessment. Jack is an Environmental Scientist and Landscape and Visual Impact Assessment specialist with MKO. Jack's primary role at MKO is producing the LVIA chapter of EIA reports. Jack holds an MSc. in Coastal and Marine Environments and a membership with the Chartered Institute of Water and Environmental Management. Michael Watson is a qualified Environmental Scientist and environmental consultant with 20 years' experience of EIA and LVIA.

12.2 The Proposed Development

12.2.1 Project Description

A full description of the Proposed Development is provided in Chapter 4 of this EIAR. The application is seeking a 10-year planning permission, that is that the planning consent would remain valid for 10 years following a final grant of planning permission.

The development of the Proposed Development will require the felling of approximately 16.36 hectares of commercial forestry, which will require replanting elsewhere in the state. Details regarding the area to be felled are outlined in Chapter 4. The Forest Service policy on the granting of felling licenses requires replanting of forestry on a hectare-by-hectare basis. 16.53 hectares of potential replanting lands have been identified for assessment purposes. These lands located in County Roscommon have all been granted Forest Service Technical Approval for afforestation and these or similarly approved lands will be used for replanting should the proposed project receive planning permission.

For the purposes of this LVIA, every individual element of the Proposed Development has been considered in terms of its potential for landscape or visual effects, with some more likely to have a greater potential for landscape and visual impacts/effects than others. In such LVIAs, a large emphasis is placed on assessing the visibility of, and the potential for visual impacts/effects arising from the proposed wind turbines.

Due to the nature of the Grid Connection Route, the underground cabling will not be visible once in place. Therefore, it is not necessary to assess the operational visibility of this aspect of the Proposed Development. It is considered that the Grid Connection Route will have a temporary landscape and visual effect during the construction phase, which is discussed below in Section 12.8.2.1.3.

The exact make and model of the turbine will be dictated by a competitive tender process but will not exceed the maximum 175-metre tip height set out above. The wind turbines to be installed will be conventional three-blade turbines, geared to ensure the rotors of all turbines always rotate in the same direction. The turbines will be light grey in color and a matt finish, as per condition 7 set in the An Bord Pleanála Order and grant of permission ABP-300686-18.

12.2.2 'Do-Nothing' Scenario

An alternative land-use option to developing the Proposed Development would be to leave the site as it is under its current planning permission. As detailed in Section 2.5.1 of Chapter 2, a wind energy project comprising of 13 turbines and all associated infrastructure has current planning permission on the Proposed Development site. The permitted wind energy project was designed to co-exist and operate independently of land use practices of commercial peat harvesting and forestry to minimise impacts. Whilst there would be a change of land use within the footprint of the Proposed Development, to facilitate the wind turbines and infrastructure, this was found to be an acceptable part of the permitted development.

The section of the Proposed Development site that does not form part of the currently permitted wind energy development site has a current-land use practice of low-intensity pastoral agriculture and commercial forestry. An alternative land-use option to developing a renewable energy project at this section of the Proposed Development site would be to leave the site as it is, with no changes made to the current land-use practices of low intensity pastoral agriculture. The landscape and visual effects of this are considered to be neutral.

A second potential Do -Nothing scenario exists for this project i.e., assuming that the permitted development is not constructed. In this scenario the existing baseline environment will evolve in one of two potential ways, either the peat extraction ceases, and a rehabilitation plan is developed, or the peat extraction continues and then a rehabilitation plan is developed. The landscape and visual effects of this are also considered to be neutral.

12.2.3 Mitigation by Good Design

Through the iterative project design process, informed by early-stage impact assessment work, landscape modelling, zone of theoretical visibility (ZTV) mapping and photomontage preparation, every effort has been made to bring forward the optimum design for the Proposed Development with respect to landscape and visual factors. The final project layout that is the subject of this LVIA, already incorporates the following landscape and visual design considerations for good wind farm design:

- The turbine layout has been designed to create a coherent cluster, contiguous and connected to each other visually and with consistent spacing.
- All turbines have been located greater than 4 times the tip height from occupied dwellings not involved in the development in order to protect residential amenity, as per requirement set by the Wind Energy Development Guidelines, (DoHPLG 2019).
- The internal site road layout makes use of the existing tracks wherever possible (to be upgraded for the delivery of wind turbine components), to minimise the requirement for new tracks within the site; and

- Felling of existing coniferous plantation is predominantly limited to keyhole felling in localised parts of the site, in keeping with existing practices in the commercial forestry plantation on-site.

During the initial site selection process, landscape sensitivity was identified as a key constraint and so landscapes considered to be less sensitive were preferred over sites with more sensitivity to change.

The site location and current layout minimises the theoretical potential for visibility and the site visits and assessment tools used in this chapter show that the actual visibility is far less than the theoretical visibility would suggest. Where visibility does occur, the design is in accordance with best practice and a coherent project, is evident.

12.3 Assessment Methodology

12.3.1 Landscape and Visual Impact Assessment Criteria

This chapter has been prepared in accordance with the Environmental Protection Agency (EPA) Draft guidance document 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports, 2017, EPA guidance documents. Best practice guidance, such as the *"Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, 2013, Landscape Institute (UK) & IEMA"* provide specific guidelines for landscape and visual impact assessments. Therefore, a combination of the draft EPA guidelines, the Landscape Institute guidelines and professional experience has informed the methodology for the assessment herein. The Landscape Institute guidelines require the assessment to identify, predict and evaluate the significance of potential effects to landscape characteristics and established views. The assessment is based on an evaluation of the sensitivity to change and the magnitude of change for each landscape or visual receptor. For clarity, and in accordance with best practice, the assessment of potential effects on landscape character and visual amenity, although closely related, are undertaken separately.

The assessment acknowledges that landscape and visual effects change over time as the existing landscape external to the Proposed Development evolves and proposed planting establishes and matures.

The significance of an effect is determined by two distinct considerations:

1. The nature of the RECEPTOR likely to be affected, namely:
   - The **susceptibility** of the receptor to the type of change arising from the Proposed Development; and
   - The **sensitivity** to change is related to the **value** attached to the receptor.
2. The nature or magnitude of the EFFECT likely to occur, namely:
   - The **size and scale** of the landscape and visual effect (for example, whether there is a complete or minor loss of a particular landscape element);
   - The **geographical extent** of the areas that will be affected;
   - The **duration** of the effect and its **reversibility**; and
   - The **quality** of the effect – whether it is neutral, beneficial, or adverse.

A detailed description and breakdown of the assessment methodology is outlined in detail in Appendix 12-1, which outlines the consideration in greater detail used in the Landscape and Visual Impact assessment.

12.3.2 Assessment Process

The assessment is undertaken based on the following key tasks and structure:

- *Establishment of the Baseline or receiving environment.*
- *Appreciation of the Proposed Development; and*
- *Assessment of effects.*

12.3.2.1 Establishment of the Receiving Environment

A baseline study has been undertaken through a combination of desk-based research and site appraisal to establish the existing conditions of the study area's landscape and visual resources. Desk-based research has involved a review of mapping and aerial photography, relevant planning and policy documents, the applicable Landscape Character Assessments, and other relevant documents and publications.

12.3.2.2 Appreciation of the Proposed Development

In order to be able to accurately assess the full extent of likely effects on landscape character and visual amenity it is essential to develop a thorough and detailed knowledge of the Proposed Development. This includes a comprehensive understanding of its location, nature and scale and is achieved through a review of detailed descriptions of the Proposed Development and drawings (see Planning Application Drawings accompanying the application) and an on-site appraisal.

12.3.2.3 Assessment of Effects

The landscape and visual impact assessment seeks to identify, predict and evaluate the significance of potential effects to landscape characteristics and established views. The assessments are based on an evaluation of the sensitivity to change and the magnitude of change for each landscape or visual receptor.

The assessment acknowledges that landscape and visual effects change over time as the existing landscape evolves and proposed planting establishes and matures. The assessment therefore reports on potential effects during both construction/operation and completion of the Proposed Development. The prominence of the Proposed Development in the landscape or view will vary according to the existing screening effects of local topography, structures and buildings, intervening existing vegetation and type and height of the proposed structures.

12.3.3 Guidance and other information used in the Landscape and Visual Impact Assessment

Ireland signed and ratified the European Landscape Convention (ELC) in 2002, which introduces a pan-European concept which centres on the quality of landscape protection, management and planning. The Department of Arts, Heritage and the Gaeltacht has published a National Landscape Strategy for Ireland in 2015. The Strategy aims to ensure compliance with the ELC and contain six main objectives: developing a national Landscape Character Assessment and Developing Landscape Policies.

In 2000, the Department of the Environment and Local Government published 'Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities', which recommended that all Local Authorities adopt a standardised approach to landscape assessment for incorporation into Development Plans and consideration as part of the planning process. However, this DoEHLG 2000 guidance remains in draft form.

The landscape and visual impact assessment is primarily based on the *Guidelines for Landscape and Visual Impact Assessment* (GLVIA), 3rd Edition, Landscape Institute (UK) & IEMA (2013). A range of other guidelines also inform the preparation of this landscape and visual impact assessment, which include:

- Wind Energy Development Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, 2006)
- Draft Revised Wind Energy Development Guidelines. Department of Housing, Planning and Local Government, Dublin (December 2019)
- Visual Assessment of Wind Farms: Best Practice (Scottish Natural Heritage, 2002).
- Visual Representation of Wind Farms: Version 2.2 (Scottish Natural Heritage, 2017).
- Siting and Designing Wind Farms in the Landscape, Version 3a (Scottish Natural Heritage, 2017).
- Assessing the Cumulative Impact of Onshore Wind Energy Developments. (Scottish Natural Heritage, 2012)
- Photography and photomontage in landscape and visual impact assessment (Landscape Institute Advice Note 01/11, 2011)
- Visual Representation of Development Proposals, (Landscape Institute, Technical Guidance Note 06/19, 17 September 2019);
- EPA Guidelines on the information to be contained on Environmental Impact Statements (EPA 2002)
- EPA Advice Notes on Current Practice in the preparation of Environmental Impact Statements (EPA, 2003).
- Spatial Planning for Onshore Wind Turbines – natural heritage considerations (Scottish Natural Heritage, 2015)
- Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft August 2017 '(EPA 2017).
- Cumulative Impact of Wind Turbines on Landscape and Visual Amenity (Carmarthenshire County Council, Wales, 2013)
- Westmeath County Development Plan 2014–2020 (Westmeath County Council, 2014)
- Draft Westmeath County Development Plan 2021-2027 (Westmeath County Council, 2020)
- Longford County Development Plan 2015–2021 (Longford County Council, 2015)
- Meath County Development Plan 2013–2019 (Meath County Council, 2013)
- Draft Meath County Development Plan 2021-2027 (Meath County Council, 2020)
- Cavan County Development Plan 2014–2020 (Cavan County Council, 2014)
- National Parks and Wildlife Service (NPWS), http://www.npws.ie/;
- Garden Surveys as part of the National Inventory of Architectural Heritage, http://www.buildingsofireland.ie/
- Irishtrails; http://www.irishtrails.ie/; and
- Ordnance Survey Ireland, 1:50,000 Discovery Mapping

12.3.4 Scope

12.3.4.1 Study Area

A study area of 20 km radius from the outer turbines of the Proposed Development site has been selected to identify potential significant landscape and visual effects within County Westmeath, Longford, Meath and Cavan (refer to Figure 12-1). The LVIA study area extends to 15 km from the Proposed Development for assessment of effects on landscape character. The study area's extent has been identified through a review of maps, aerial photographs of the Proposed Development site, and subsequently verified during site surveys.

It is acknowledged that the Proposed Development may be visible from locations beyond the study area, mainly from elevated locations, and as such it is important to note that the 20 km study area

defines the area within which potential effects could be significant, rather than defining the extent of visibility.

Photomontages have been produced to describe and illustrate views from representative viewpoints located within the study area.

12.3.4.2 Consultation

Consultations have been undertaken with Westmeath County Council from an early stage in the Landscape and Visual Impact Assessment (LVIA) process including in 2016 when the original landscape and visual impact assessment was being compiled. A part of a Request for Further Information following the submission of the original application Westmeath County Council requested a number of additional Photomontage Viewpoints to be included in the assessment. These were completed and included in the subsequent application and have been used again in this assessment. Table 12-1 below provides an overview of consultations carried out.

Table 12-1 Consultation Overview

Consultee and Date	Consultation Matter	Issue Raised	Response / Action Taken
Meath County Council	Request for assessment of impacts on LC POL 3 in the Meath County Development Plan 2013-2019 and Draft Meath County Development Plan 2021-2027	*"Requested that the impact of the Proposed Development on Sliabh na Calliagh, Co. Meath is fully considered to ensure that the Proposed Development does not adversely impact upon the amenity and experience of the important visitor attraction and archaeological site."*	Viewpoint from Sliabh na Calliagh has been included as VP 11

12.3.4.3 Temporal Scope

The type and duration of landscape and visual effects falls within two main stages as follows:

Construction (temporary and of short duration)

- Potential physical effects arising from construction of the development on the landscape resource within the development application boundary area;
- Potential effects to landscape character or visual amenity within the wider study area as a result of visibility of construction activities or the development during construction;
- Effects of temporary site infrastructure such as – site traffic; construction compounds; and
- Potential effects of partially built development in various stages of construction.

Operational

- Potential effects of the Proposed Development on landscape resources and landscape character, including the perceptual qualities of the landscape;
- Potential effects of the Proposed Development on views and visual amenity; and
- Potential cumulative effects of the development in combination with other planned and Proposed Developments of a similar type and scale upon the landscape and visual resource of the study area.

12.3.4.4 Effects Scoped Out

The Proposed Development will become a permanent feature in the landscape following the completion of construction works. The assessment takes account of this in the determination of residual landscape and visual effects.

The Proposed Development site is located within the Westmeath County Council jurisdiction. However, since the study area is 20 km from the outer turbines, the study area encroaches into Counties Longford, Meath and Cavan. The development plans for all four counties are coming to the end of their term and are up for renewal, references to landscape designations will be made according to the current Development Plans, with the draft development plans mentioned where required.

It is acknowledged that there is the potential for visibility of the Proposed Development from locations beyond the study area of 20 km. It is important to note that the 20 km study area defines the area within which potential landscape and visual effects could be significant, rather than defining the extent of visibility. Therefore, landscape designations and visual receptors beyond the 20 km study area have been scoped out.

Effects on landscape character beyond a 15 km radius from the Proposed Development have been scoped out of this assessment, where it is judged that potential significant effects on landscape character are unlikely to occur.

12.4 Landscape Policy Context

This sub-section reviews the Wind Energy Development Guidelines (DoEHLG, 2006) and the policies and objectives of various planning policy documents relating to landscape, planning and the locational siting of wind farms, as they relate to the site of the Proposed Development.

12.4.1 Westmeath County Development Plan 2014-2020

The Westmeath County Development Plan 2014-2020 (WCDP) includes policies and objectives relating to landscape character, visual amenity, as well as Wind Energy Development Capacity. The WCDP notes that Lakelands are important, prominent, and unique landscape elements of Westmeath, the plan also notes the diverse range of landscape types such as grasslands, peatlands, wetlands, woodlands, and eskers which contribute to the character and local distinctiveness of landscape within the county.

As reported in the WCDP, it is the policy of Westmeath County Council to:

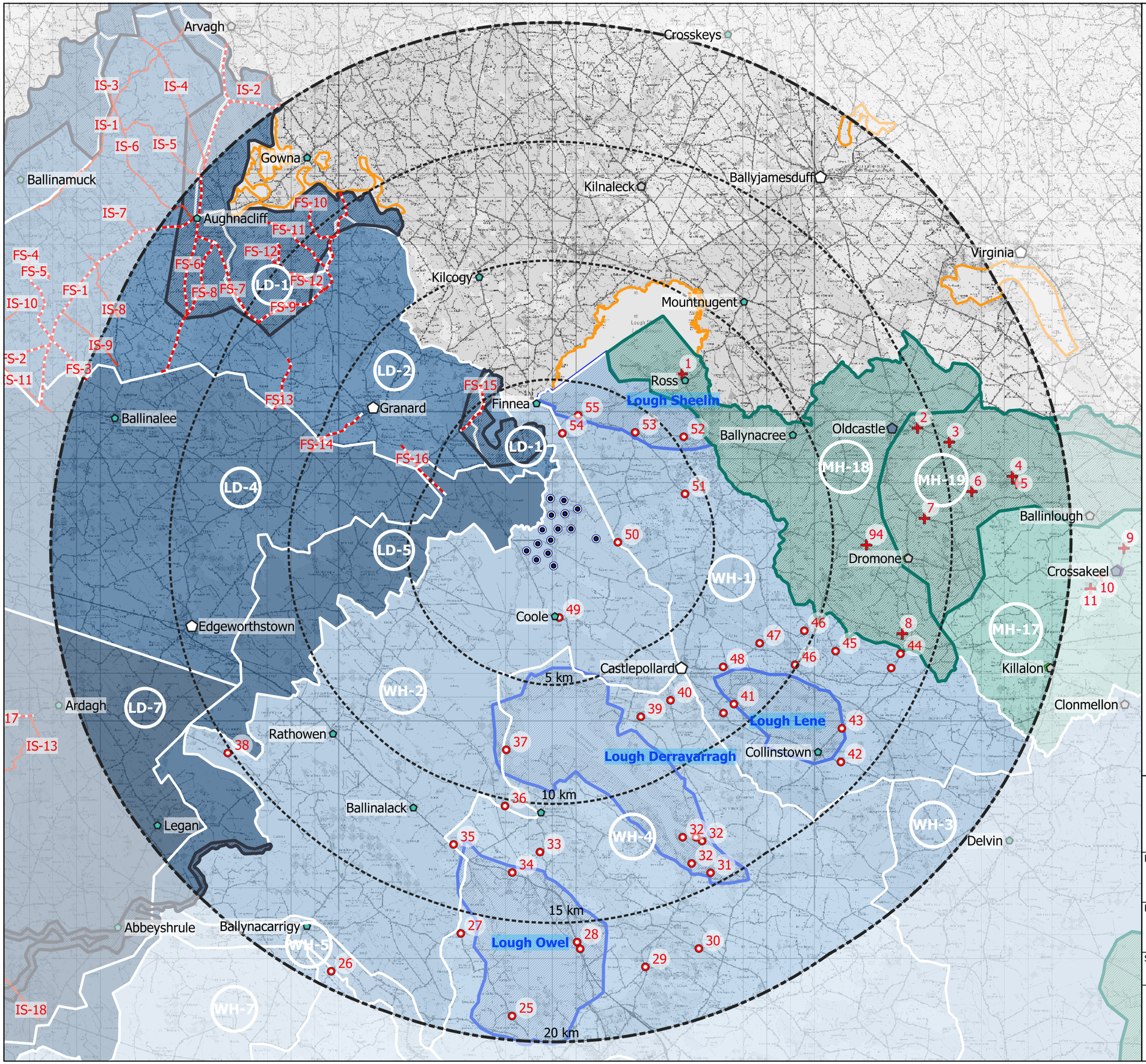
> ***P-LCA1*** *To protect the distinctiveness, value and sensitivity of County Westmeath's landscapes, including the Lakelands and to recognise their capacity to sustainably integrate development within them.*

12.4.1.1 County Westmeath Areas of High Amenity

The WCDP identifies six areas which are considered to have high amenity and recreational value. They are all associated with larger lakes in the County, and include areas around the following: Lough Ree area, Lough Lene area, Lough Owel area, Lough Ennell area, Lough Sheelin area and Lough Derravaragh area. These designated areas of High Amenity are denoted in Blue in in the Landscape Baseline Map Figure 12-1 below.

Section 10.5.3 of the current WCDP notes that location of wind energy developments in Areas of High Amenity will not be encouraged. As shown in Figure 12-1 (below), the Proposed Development is not located within an Area of High Amenity.

Four Areas of High Amenity are located within the LVIA study Area (to 20 km), Lough Sheelin is the closest, and is located approximately 3 kilometres north of the Proposed Development site at its closest point. High Amenity Areas surrounding Lough Lene, Lough Derravarragh and Lough Owel are located within the LVIA study are to the south of the Proposed Development.



Map Legend

- Turbines of the Proposed Development
- LVIA Study Area

Settlement Hierarchy (Standardised / Inter-County)

- Service Town
- Small Town
- Village
- Small Village

Westmeath Designations WCDP 2014-2020

- Westmeath High Amenity Areas
- Westmeath Protected Views

Westmeath Landscape Character Areas

- WH LCA 1 - Northern Hills and Lakes
- WH LCA 2 - Inny River Lowlands
- WH LCA 3 - River Deel Lowlands
- WH LCA 4 - Central Hills and Lakes
- WH LCA 5 - Royal Canal Corridor

Meath Designations - MCDP 2013 - 2019

- Meath High Sensitivity Landscape
- Meath Views and Prospects

Meath Landscape Character Areas

- MH LCA 17 - South West Kells Lowlands
- MH LCA 18 - Lough Sheeling Uplands
- MH LCA 19 - Loughcrew and Slieve na Calliagh Hills

Longford Designations - LCDP 2015 - 2021

- Longford Broad Zones
- Longford Scenic Routes and Views

Longford Landscape Character Units

- LD LCU 1 - Northern Drumlin Lakeland
- LD LCU 2 - Northern Upland
- LD LCU 4 - Central Corridor
- LD LCU 5 - Inny Basin
- LD LCU 7 - Open Agricultural

Cavan Designations - CCDP 2014-2020

- Cavan Major Lakes and Environs

Drawing No.

Figure 12-1

Drawing Title

Landscape Policy Context

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:155000	200445	03.03.2021	JW	EC

MKO Planning and Environmental Consultants

12.4.1.2 County Westmeath Landscape Character Assessment

Landscape Character Assessment was undertaken for the 2008-2014 Westmeath County Development Plan. This resulted in the designation of the County into 11 Landscape Character Areas (LCAs). As shown in Map 4 of the current WCDP and Figure 12-2 below, the Royal Canal divides the LCAs into northern and southern areas of the County - Four LCAs lie to the north of the Royal Canal, which is an LCA in itself, while six LCAs lie to the south of the Royal Canal. As shown in Figure 12-1 (above), only three LCAs are located within 15 km of the Proposed Development and in the LVIA study area for assessment of landscape character.:

- WH LCA 1 - Northern Hills and Lakes;
- WH LCA 2 - Inny River Lowlands, and;
- WH LCA 4 – Central Hills and Lakes

Landscape character refers to the distinct and recognisable pattern of elements that occur consistently in a particular type of landscape, and how people perceive this. It reflects combinations of geology, landform, soils, vegetation, land use and human settlement, and creates the sense of place found in different areas. The *Landscape Character Assessment of County Westmeath* identified 11 distinct Landscape Character Areas (LCAs) as shown on Figure 12-2 below. The LCA's for County Westmeath have not changed since the 2008-2014 County Development Plan, and indications (Figure 12-2) suggest the LCA's will remain unchanged in the upcoming publication of the 2021-2027 County Development Plan.

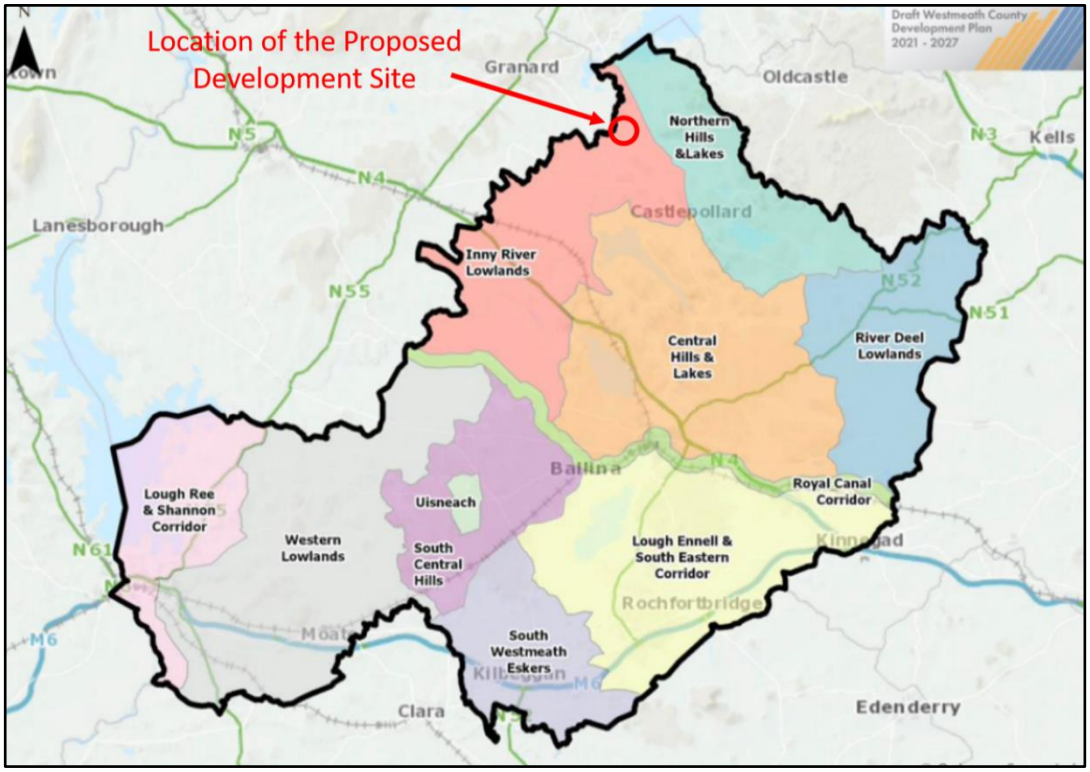


Figure 12-2 Co. Westmeath Landscape Character Areas (extract from Westmeath County Development Plan 2021-2027 Draft Consultation Paper)

The WCDP contains the following policies in relation to Landscape Character:

> ***P-LCA2*** *To fully cooperate with the Midland Regional Authority in the preparation of a Landscape Character Assessment and strategy for the counties within the region and incorporate the geomorphic study carried out of the county.*

> ***P-LCA3*** *To support and manage change and encourage the sustainable planning and management of the landscape and lakes of the County, including the conservation and enhancement of the historic environment and biodiversity.*

The WCDP contains the following relevant objectives relating to the Landscape Character Areas:

> ***O-LCA1*** *To require a Visual Impact Assessment for Proposed Development with the potential to impact on significant landscape features within the County*

A *Wind Energy Capacity Map* is included in the WCDP, which assesses the capacity each Landscape Character Area has, to accommodate Wind Energy Development. The assessment is appended as a map, map 5 for reference. It considers that all LCAs with the exception of LCA 9 and LCA 7 have a low capacity for wind energy. LCA 9 has no capacity, with LCA 7 having a medium capacity. *Section 10.5* of the Plan states that the Landscape Character Assessment informed this map. However, *Section 10.5* of the current Plan states that:

> *"The preferred locations for large scale energy production, in the form of wind farms, is onto cutover cutaway peatlands in the county, subject to nature conservation and habitat protection requirements being fully addressed."*

12.4.1.2.1 Westmeath Landscape Character Areas – Summary

The three County Westmeath LCAs in the LVIA Study Area for landscape character assessment (15 km from the Proposed Development) are described in a general sense below. Visibility of the Proposed Development from within these LCAs is assessed in section 12.5.6.1, and a detailed description and assessment of landscape effects is included in Appendix 12-2.

WH LCA 2 - Inny River Lowlands

The proposed site is located on the north-western boundary of LCA 2 - Inny River Lowlands which is located in the north-western corner of county Westmeath, and is described in the Plan as:

> *"The low-lying ground around the Inny River from Finnea to Balllinacarrigy and the Royal Canal including pastoral landscapes, extensive areas of cutaway bog industrial peat production and conifer plantations."*

This area also includes the N4 corridor and wetland areas of nature conservation interest. These include Glen Lough, Lough Iron, Lough Garr and Garriskil Bog. The WCDP also notes that the area contains some views including a panoramic view form the N4 near Bunbrosna, panoramic views of Lough Iron and the surrounding countryside and views of Glen Lough.

The WCDP also notes the settlements include Lismacaffrey, Streete, Coole, Rathowen and Balllinalack. The area between Lough Iron and Ballinacarrigy is of historical significance with the presence of Tristernagh Abbey dating from the twelfth century and the remains of Kilbixy, which was once a town and now is the location of a Castle remains and a Leper hospital. The development plan also notes a number of historic houses and demesnes in the LCA. The Landscape Character of the proposed site, and the LCAs within 20 kilometres of the Proposed Development is discussed further in Section 12.5.7 of this LVIA. There are no specific objectives associated with this LCA.

It is noted that while the Wind Energy Development Capacity Map (Map 5) in the current WCDP indicates that this LCA has a Low Capacity for wind energy development, the LCA is described as having extensive areas of cutaway bog. With reference to the Regional Planning Guidelines for the Midland Region, flat peatlands are considered the preferred location for wind energy developments in County Westmeath.

WH LCA 1 - Northern Hills and Lakes

This LCA lies in Westmeath's north-eastern corner, adjacent to LCA 2, and approximately 0.5 kilometres east of the Proposed Development site at its closest point. The LCA is described as an area of prominent hills topped with chert, or cherty limestone with enclosed lakes and areas of peat deposits, mostly fen. This LCA is described as a rural landscape of particularly high scenic quality containing a number of lakes with several protected views, including Lough Lene Area of High Amenity and Fore Special Heritage Area. The area is also of high nature conservation value. Afforestation occurs around Finnea and at Fore, and the extensive Beech plantation at Mullaghmeen is also identified. Glacial deposits result in some quarry operations in the area.

Settlements within LCA-1 include Finnea, Castlepollard, Collinstown and Drumcree, and the historic settlement of Fore, which is of high cultural significance due to the monastic origins and feature of built and cultural interest around the settlement.

WH LCA 4 - Central Hills and Lakes

This LCA is located southeast of LCA 2, to the north of central Westmeath, and is located approximately 3.5 kilometres south of the Proposed Development. It is typified by undulating hills and lakes, of which Lough Derravaragh and Lough Owel are most prominent. These lakes are both designated Areas of High Amenity, as well as being SACs and SPAs. The Plan notes that a number of fens also occur, notable Scragh Bog, which is of international importance. A high number of protected views reflect the high scenic quality and amenity value of the area. A number of demesne landscapes and associated areas of semi-natural woodland are found in this LCA, including upland oak areas around Lough Derrarvaragh, at Knockeyoon and Crookedwood.

This LCA has a small number of settlements including Crookedwood, Multyfarnham and Castlepollard, This landscape has associations with Bronze Age sites at Lough Derravaragh and at Frewin Hill on Lough Owel, as well as monastic associations of Portloman Abbey, and the Franciscan Friary at Multyfarnham. The lake edges are known as attractive locations for recreation and amenity.

12.4.1.3 Westmeath Landscape Policies and Objectives Relating to Landscape Character

The WCDP contains the following objective relating to LCA 1:

> ***O-NHL1:*** *To consider the provision of walkways around Lough Lene, subject to impacts on biodiversity*

Other general Landscape policies are as follows:

> ***P-LLM1:*** *To require that development is sensitively designed, so as to minimise its visual impact on the landscape, nature conservation, archaeology and groundwater quality.*
>
> ***P-LLM2:*** *To conserve and promote the high scenic quality of the Landscape Character Areas, and explore the potential for natural resource tourism, such as fishing, boating, walking, cycling, nature trails, archaeology, etc., in conjunction with relevant Tourism bodies such as Waterways Ireland, Fáilte Ireland Community Development Agencies and the National Parks & Wildlife Service.*

12.4.1.4 County Westmeath Historic and Demesne Landscapes

Tullynally castle and grounds are identified in the Development Plan as an important feature of the area as well as a tourist attraction, the castle and significant grounds being the seat of the Packenham

family, close to the northern shore of Lough Derravaragh. Other demesnes within 5 kilometres of the site include the Kinturk demesne as well as Turbotstown demesne. Kinturk House is now in the ownership of the HSE, while it is understood Turbotstown House is in private ownership, and does not appear to be open to the public (although this is stated in the Development Plan).

12.4.1.5 County Westmeath Views and Prospects

Section 6.24 of the WCDP contains a number of policies and objectives relating to Westmeath's 56 Views and Prospects, which are listed in Appendix 7 of the Plan. There are a number of views and prospects contained within a 20-kilometre radius of the Proposed Development and these are shown in Figure 12-1 above. These views and prospects were mapped directly from the Development Plan maps, and the map overlaid with the ZTV (Zone of Theoretical Visibility) of the proposed turbines (See Figure 12-9 - *Visual Baseline and ZTV Map* in Section 12.6 - *Visual Baseline*), and the descriptions were also studied. The locations of the protected views were also visited. Table 12-2 below includes the Development Plan description, and comments regarding visibility. It is noted that Objective O-VP1 aims to review the listed views during the lifetime of the Plan.

It should be noted that many of the views are not in the direction of the site or are not within an area of theoretical visibility as denoted by the ZTV, and therefore these are noted in Table 12-2 and not considered further. The protected view at Coole (No. 49) is included due to its proximity to the site, although the intended view is clearly in the opposite direction to the Proposed Development. Views with potential visibility are identified in Table 12-2 below and visual effects are discussed in Section 12.9 - *Likely and Significant Effects* and many are represented by photomontages in Volume 2 Photomontage Booklet.

Photomontages from Viewpoints 1, 10, and 12 are taken from views and prospects in County Westmeath, while photomontages 8 and 14 are taken in close proximity to scenic views where there is visibility of the Proposed Development, and where the intended view described in the Development Plan, does not represent the clearest view of the Proposed Development. This is described in detail in Section 12.7 – Likely significant Effects.

In several cases, the views marked on the map do not correspond to the actual view, and in some cases, the view described was not evident. In these cases, the text in the Plan is considered to have precedence, and the most obvious intended view was assessed where this was possible. This is noted and described in more detail in Section 12.6.

Section 1.9 of the Development Plan notes: "*The written statement is accompanied by a set of maps which give visual representation to the policies and objectives in the Plan. Should any conflict arise between the Written Statement and the Maps, the Written Statement shall prevail. Should any conflict arise between the print and electronic version, the print version shall take precedence.*"

Table 12-2 Views and Prospects within 20 kilometres (Co. Westmeath)

Viewpoint No.	View Description (County Development Plan)	Comments on Visibility of Site
25	View from local road L-5803 at Ballard eastwards over Lough Owel	View looks in opposite direction to the Proposed Development site and indicated south on map.
26	Panoramic view from Hill of Laragh on Local Road L-5905	Map indicates main views to northwest and southeast in contrast to the description, but possible views to the

		Proposed Development site (northeast)
27	Panoramic views of Lough Iron and surrounding countryside from Local Road L-1804 at Balrath.	Views are partially within ZTV but are towards Lough Iron and the northwest, and Views in the direction of the site are screened, from parts of road. However the most open view is from Frewin Hill - See Photomontage 14
28	Views of Lough Owel from Route N4 between Portnashangan and Tullaghan	View to southwest, in opposite direction to the Proposed Development site.
29	Scenic drive with incidental views over Knockdrin Estate	Views in opposite direction to Proposed Development site and not within ZTV
30	Scenic drive with incidental views on Local Road - 1015 at Lee's Cross – Crazy Corner southwards to Knockdron	View in opposite direction to Proposed Development site and not within ZTV
31	Views of Knockeyon and surrounding countryside form Local Road L-1618.	Views to Knockeyon. Short section around view is within ZTV, however screening by buildings and trees adjacent to GAA pitch.
32	Views of Lough Derravaragh and hills at south-west end as seen from R394 between Crookedwood and Gartlandstown	View in direction of Proposed Development site but not within ZTV.
33	Views of north-west end of Derravaragh and neighbouring countryside between Ballynafid and Multyfarmham on the Local Road L-1819	Potential visibility from some parts of the road but no clear scenic view of lake was discerned on the site visit, therefore intended scenic view was not identified.
34	Views to west and south towards Lough Owel and Route N4 local Road L-5818 at Kilpatrick.	View in opposite direction to the Proposed Development site (and only from L-5818)
35	Panoramic view of countryside looking north-west from point on Route N4 Local road near Bunbrosna	Views to northwest in direction of Proposed Development but view not within ZTV.

36	Panoramic view of countryside to north-west and north and excellent view over Lough Derravaragh from Local Road L-8521 between Leney and Multyfarnham.	Area where view indicated on Map 4 in Development Plan is not within ZTV. Further west along road, no open clear views to North. Potential for intermittent views due to screening.
37	Views of Lower Inny at its source. Lough Derravaragh and hills in background from point on the L-1825 Local Road,	Views to east and west, not in direction of the Proposed Development site.
38	View of Glen Lough from Local Road L-5922.	View within ZTV but screening prevents views to the Proposed Development site.
39	View of countryside around Castlepollard from Local Road L-5742 at Grangestown	View to northeast towards Castlepollard and not in direction of the Proposed Development site.
40	Scenic drive through State Forest off the R-394 Regional Road south of Castlepollard.	View within ZTV but no visibility due to screening.
41	Sporadic views of Lough Lene from Regional Road R-395 and Local Road L-5741.	View in northeast towards Lough Lene opposite direction to site
42	View of Lough Lene and neighbouring landscape from Regional Road R-395 between Collinstown and Drumcree	View not within ZTV.
43	Views of Lough Lene from the L-1731 between Collinstown and Cummerstown.	View within ZTV, see Photomontage 12
44	View of Lough Bane from Local Road L-1633, including views from the cul-de-sac off the L-1633.	View not within ZTV.
45	Views of Ben Loughs from Local Road L-5635.	Area where view marked on map not within ZTV. Actual views are further north. Potential visibility from a short section of road.
46	Views of historic Fore Village with monasteries, churches etc.	View not within ZTV.

47	View northwards over Lough Glore and surrounding landscape from Regional Road R-195 near Mooretown Crossroads.	View within ZTV see Photomontage 10
48	View over Castlepollard towards Rathowen, glimpses can be seen of the north-west end of Lough Derravaragh on the R-195 Regional Road.	View to west and southwest, not in direction of site
49	Panoramic view of countryside from top of hill on Regional Road R-395 at Coole	View within ZTV see Photomontage 1
50	View from the R-394 Regional Road between Castlepollard and Finea of "Hill of Mael" and "Mullaghmeen"	View towards Hill of Mael and Mullagheen and in opposite direction of site
51	Sporadic views (both sides of roadway) of "Hill of Mael" to the west and "Mullaghmeen" to the north-east from Local Road L-1759 which runs through the intervening valley.	View partially within ZTV, see Photomontage 8
52	Views of Lough Sheelin from points near Mullaghmeen on Local Road L-1771.	Views of Lough Sheelin, in opposite direction to site
53	Views of Lough Sheelin from Local Road L-1771 at Ballynascarry.	Views of Lough Sheelin, in opposite direction to site
54	View of Lough Sheelin from Regional Road R-394 north of Williamstown on Westmeath shoreline.	Views of Lough Sheelin, in opposite direction to site
55	Views of Lough Sheelin from Local Roads L-1770 and 1771 between Finea and Clare Island.	Views of Lough Sheelin, in opposite direction to site

12.4.2 Longford County Development Plan 2015-2021

While the site itself lies in Co. Westmeath, it is adjacent to Co. Longford and therefore the following relevant designations, policies and objectives are listed below.

12.4.2.1 Longford Landscape Policies

Section 6 Environment, Heritage and Amenities states the policies of the Longford county council which relate to landscape, and are listed below:

> ***LCA 1*** *"It is the policy of the Council to protect and enhance the County's landscape, by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the existing local landscape. Proposed Developments, where located within or adjacent to sensitive landscapes (as defined in the assessment), may be required to provide a landscape report detailing how the proposal will impact*

on the landscape and mitigation measures to be taken where necessary to address negative impacts. Proposed Developments which have a detrimental impact on the landscape will not normally be permitted."

LCA 2 *"Longford County Council recognises the diverse and unique landscape character of the County, and as such, landscape conservation areas may be designated in order to achieve its objective of protecting and enhancing the County's landscape. Physical development shall not adversely impact on areas designated as visually important/sensitive under this section."*

LCA 3 *"Longford County Council recognises the diverse and unique landscape character of the County, and as such, landscape conservation areas may be designated in order to achieve its objective of protecting and enhancing the County's landscape. Physical development shall not adversely impact on areas designated as visually important/sensitive under this section."*

12.4.2.2 Longford Landscape Character Areas – Summary

Longford County Landscape Character Assessment (LCLCA) was completed and is contained in Annex 4 of the Longford County Development Plan 2015-2021. The LCLCA acknowledges that a landscape is not static, and that the level of development which is acceptable must be determined.

The LCLCA lists the seven Landscape Character Units (LCUs) in County Longford with descriptions given for each. Information relating to the sensitivity and possible threats are also given for each unit, as are some development opportunities and suggested policies to protect against the likely threats. There are five of the above units within 15 km of the Proposed Development site. These are illustrated above in Figure 12-1 and are listed below.

- LD LCU 1 – Northern Drumlin Lakeland
- LD LCU 2 – Northern Upland
- LD LCU 4 – Central Corridor
- LD LCU 5 – Inny Basin
- LD LCU 7 – Open Agricultural

As illustrated in Figure 12-1, Longford LCU 5 and LCU 1 are located in relatively close proximity (within 5 km) to the Proposed Development site and are summarised in a general sense below. Visibility of the Proposed Development from within the 5 Longford LCUs is assessed in section 12.5.6.1, and a detailed description and assessment of landscape effects is included in Appendix 12-2.

Landscape Character Unit 5 Inny Basin

The Landscape Character Unit 5 Inny Basin, lies adjacent to the site to the west. This LCA is described as mainly flat topography, with landcover dominated by peatlands with mixed woodlands interspersed of pastures of varying quality. The River Inny is the main feature of drainage and follows the County Boundary for some time. Settlements are sparse, Lisryan and Forgney are the main settlements.

The sensitivity of this Landscape Character Unit is described as Low, with potential areas of Medium to High sensitivity in the vicinity of protected woodlands and riverbanks.

Landscape Character Unit 1 – Northern Drumlin Lakeland

The other Landscape Character Unit which adjoins the site of the Proposed Development is Unit 1 – Northern Drumlin Lakeland. The landform is that of a drumlin landscape, with some agricultural land which tends to be tightly enclosed and bounded by small hedgerows, while landcover is predominantly agricultural holdings interspersed with bogland, which is more dominant on the eastern boundary, close

to the site of the Proposed Development. Small settlements are evident, Ballinamuck and Drumlish the only settlements. Sensitivity is regarded as Low to Medium with some areas regarded as High in the vicinity of lakes and designated scenic routes.

12.4.2.3 Longford Landscape Designations – Broad Zones

In the areas surrounding lakes, rivers, canal, and waterways (known as broad zones), inappropriate development will be prevented. The map of these broad zones is shown in Appendix 6 and Appendix 10 of the LCDP and included in Figure 12-1.

The LCDP also contains policies relating to these areas:

> ***"ILW 9:*** *The broad zones of the lakes, rivers, canals and deciduous woodlands shall be protected from inappropriate development (see Appendix 10), i.e. development which adversely affects high amenity and landscape quality in relation to their setting. For example, the environs of Newcastle House and Woods, particularly adjoining the River Inny Bridge."*
>
> ***"ILW 12:*** *The Council shall take whatever measures it considers necessary in order to protect, enhance and preserve the built and natural heritage of the Royal Canal and its associated structures including the maintenance of the broadzone at 100m either side of the Canal. This shall include the natural setting of the canal and its views and prospects."*
>
> ***"ILW 13:*** *Development in the broad zones of the major rivers and lakes of the County, as illustrated in Appendix 10, will not normally be permitted and shall be restricted to extensions of existing dwellings, which shall be sensitively designed in terms of the individual site and materials. Intensive agricultural developments shall not normally be permitted in these areas."*
>
> ***"AM 5:*** *The Planning Authority shall control development in protected areas (scenic views and prospects, ridge lines, broad zones of the lakes, European sites etc.) which has the potential to negatively impact on the scenic, heritage and cultural assets of the County."*

12.4.2.4 County Longford Protected Views and Prospects/Scenic Routes

Longford County Council has designated numerous protected views and prospects which are thought to warrant protection, and these are illustrated in Appendix 6 and listed/described in Section 6.1 of the LCDP.

Though described as views and prospects, the LCDP designates parts of roads as views/prospects. 16 No. scenic routes are located within the LVIA Study Area (within 20 km from the Proposed Development). County Longford designated scenic routes identified within the LVIA study area are displayed in Figure 12-1 and are listed in Table 12-3 below.

Visibility of the Proposed Development varies along the designated routes. As they are sections of road as opposed to specific viewing points, visibility of the Proposed Development from each section of each route is not individually described in detail here, but the routes are mapped again in Section 12.6 - *Visual Baseline* with the distribution of theoretical visibility upon each section of route indicated by ZTV mapping (Figure 12-9).

Table 12-3 Co. Longford Scenic Routes Located in the LVIA Study Area

Scenic Route No.	Townland	Visibility
F.S-1	Clontumper, Esker South, Drumnacooha, Derrynacross, Cornafunshin, Lettergonnell, Aghadowry, Glenmore (Longford By), Fostragh, Rathmore (Granard By).	Proposed Wind Farm located 20 km away from this scenic route. Theoretical visibility of 4-7 turbines, however the view at distance is unlikely due to screening provided by vegetation, built form and landform.
F.S-6	Drumhalry, Rosduff, Enaghan, Lisraherty, Smear, Cleenrah, Rathmore (Granard By), Aghnacliff, Carrickadorrish, Aghacordrinan, Aghakeeran, Molly, Gelshagh, Aghagreagh, Lislea (Granard By).	Proposed Wind Farm located 18 km away from this scenic route. Theoretical visibility intermittent, however the view at distance is unlikely due to screening provided by vegetation, built form and landform.
F.S-7	Aghnacliff, Aghakine, Culray	No theoretical visibility indicated in ZTV
F.S-8	Aghakine, Sonnagh, Aghakeeran, Molly.	Intermittent theoretical visibility indicated in ZTV. A view of the Proposed Development is unlikely due to distance and screening provided by vegetation, built form and landform.
F.S-9	Culray, Ballinrooey, Ballinulty Lower, Dring, Derrycassan, Mullinroe, Larkfield, Cloonagh (Granard By), Kilmore.	No theoretical visibility indicated in ZTV
F.S-10	Aghanoran, Cloonagh (Granard By).	No theoretical visibility indicated in ZTV
F.S-11	Larkfield	No theoretical visibility indicated in ZTV
F.S-12	Derrycassan	Scenic route located approximately 14 km from Wind Farm Site. Intermittent theoretical visibility indicated in ZTV. A view of the Proposed Development is unlikely due to distance and screening provided by

		vegetation, built form and landform.
F.S-13	Tober, Coolcor, Ballymore.	Intermittent theoretical visibility indicated in ZTV. A view of the Proposed Development is unlikely due to screening provided by vegetation and built form.
F.S-14	Moatfield, Granardkill, Ballybrien, Ballymacroly.	Full theoretical visibility indicated in ZTV. Photomontage 18 is representative of views from this scenic route.
F.S-15	Ballywillin, Springtown, Tonymore North.	Full theoretical visibility indicated in ZTV. Photomontage 5 is representative of views from this scenic route.
F.S-16	Aghabrack, Robinstown, Rincoolagh.	Full theoretical visibility indicated in ZTV. Photomontage 4 is representative of views from this scenic route.
I.S-3	Drumard	Beyond 20 km radius
I.S-5	Smear, Carrickmaguirk, Aghamore Lower	Beyond 20 km radius
I.S-6	Leggagh, Aghamore Lower, Annaghdaniel, Cloonback, Cuingareen, Rathmore (Granard By), Donegal (Granary By)	Beyond 20 km radius
I.S-9	Lettergonnell, Carrowlinan, Kiltyclogh.	Beyond 20 km radius

12.4.3 Meath County Development Plan 2013-2019

The current Meath County Development Plan 2013-2019 (MCDP) came into effect on the 23rd of January 2012. The timeline for adoption of a new development plan has been extended during 2020 due to Covid-19, therefore, the next Meath County Development Plan (2021-2027) is not likely to be in effect until 2021. Although this LVIA is cognisant of the Draft MCDP 2021-2027, this chapter bases its assessment upon, and refers specifically to the current MCDP (2013-2019); which will remain in effect at the time of lodging the planning application and this EIAR for the proposed Coole Wind Farm Development.

12.4.3.1 Meath Landscape Policies and Objectives

Section 9.8 of the MCDP states the landscape policies of the Meath County Council, which are:

> *"**LC POL 1:** To support and implement the provisions of the National Landscape Strategy"*
>
> *"**LC POL 2:** To require that any necessary assessments, including landscape and visual impact assessments, are provided when undertaking, authorising, or approving development"*
>
> *"**LC POL 3:** To protect the archaeological heritage, rural character, setting and amenity of the Tara landscape and Loughcrew and Slieve na Calliagh Hills"*

A strategic policy of Meath county council is given as:

> *"**LC SP 1:** To protect the landscape character, quality, and local distinctiveness of County Meath in accordance with relevant government policy and guidelines and the recommendations included in Meath Landscape Character Assessment (2007) in Appendix 7"*

The MCDP also states the landscape objectives of Meath County Council which are:

> *"**LC OBJ 1:** To seek to ensure the preservation of the uniqueness of all landscape character types, and to maintain the visual integrity of areas of exceptional value and high sensitivity"*
>
> *"**LC OBJ 2:** To assess development proposals having regard to the recommendations contained in the Meath Landscape Character Assessment 2007"*
>
> *"**LC OBJ 3:** To work in partnership with key stakeholders to promote County Meath as a centre for cultural heritage education and learning"*
>
> *"**LC OBJ 4:** To complete the pilot study on Historic Landscape Characterisation and utilise the results to complement and contribute to Landscape Character Assessment (LCA)"*
>
> *"**LC OBJ 5:** To preserve the views and prospects and the amenity of places and features of natural beauty or interest listed in Appendix 12 and shown on Map 9.5.1 from development that would interfere with the character and visual amenity of the landscape"*
>
> *"**LC OBJ 7:** To explore, over the life of the plan, the designation of a Landscape Conservation Area, pursuant to Section 204 of the Planning & Development Acts 2000–2011, in respect of Loughcrew and Slieve na Calliagh Hills"*

12.4.3.2 County Meath Landscape Character Assessment

Meath County Landscape Character Assessment (MCLCA) 2007 was carried out as part of the Meath County Development Plan 2007-2012.

The County was divided into 20 no. Landscape Character Areas (LCA)s. Two designated LCAs are located within 15 km of the Proposed Development site (15 km Study Area for effects on Landscape Character) and are illustrated in Figure 12-1. These are LCA 18 - the Lough Sheelin Uplands and LCA – 19 Loughcrew and Slieve na Calliagh Hills. These LCAs have a landscape value of high and exceptional respectively, they both have a landscape sensitivity of high and a landscape importance defined as regional and national/international respectively. The criteria involved in describing the landscape sensitivity, landscape importance and landscape capacity are described in *Section 8* of the MCLCA.

Visibility of the Proposed Development from within these two LCAs are assessed in section 12.5.5.1, and a detailed description and assessment of landscape effects is included in Appendix 12-2.

12.4.3.3 County Meath Protected Views and Prospects

Meath County Council has designated 94 no. protected views and prospects which are thought to warrant protection, and these are illustrated in *Map 9.5.1* and listed/described in *Appendix 12* of the MCDP.

Nine amenity views/prospects have been identified and located within the LVIA Study Area. The nine designated views and prospects have been mapped in Figure 12-1 and listed below in Table 12-4.

It should be noted that most of the views listed below in Table 12-4 are not in the direction of the site with the exception of Sliabh na Calliagh.

Table 12-4 County Meath Designated Views and Prospects within the LVIA Study Area

View	Location	Description	Visibility
1	Country road between Ross and Moneybeg (Local Significance)	View looking north west across mixed landscape of woodland and trees of low enclosure. Lake and skylines visible in distance. Working landscape containing housing, agricultural structures and infrastructure	View to northwest and not in direction of site.
2	County road at Bellewstown (Local significance)	Views to south of Loughcrew skyline. Foreground contains extensive housing.	View to south, not in direction of site
3	County road from R154 at Boolies (Regional significance)	Extensive views south west across unusually open and unenclosed landscape towards skyline of cultural and scenic significance. Foreground and middleground obstructed by housing and infrastructure	View to south, not in direction of site
4	R154 between Patrickstown and Oldcastle I (Regional Significance)	Extensive view northwards across extensive settled landscape with settlements, housing, infrastructure and agriculture all visible. Infrastructure and housing visible in near and middle foreground. Few mature trees in foreground or middle distance. Extensive view southwards across extensive settled landscape with low densities of housing	View to North and not in direction of site
5	R154 between Patrickstown and Oldcastle II (Regional Significance)	Extensive view south across extensive landscape with relatively low levels of enclosure and relatively low levels of visible development	View to south and not in direction of site
6	Sliabh na Calliagh (National Significance)	Panoramic views in all directions including intervisibility between the 3 peaks. Site of high cultural and scenic significance characterized by absent or very low levels of enclosure.	Panoramic view and within ZTV

View	Location	Description	Visibility
7	County road between Rahaghy and Patrickstown (Regional significance)	Extensive view across important scenic and cultural landscape	View to southeast and in opposite direction of site
8	County road between Skerry Cross Roads and Ballinlough (Regional significance)	Framed View from local road across Lough Bane	View southwest and not in direction of site
94	Moylagh Castle from local road to east of R195 (Local significance)	View of Moylagh Castle and Motte	View to southeast and in opposite direction of site

12.4.4 Cavan County Development Plan 2014-2020

12.4.4.1 County Cavan Landscape Policies and Objectives

There is no Landscape Character Assessment for County Cavan, however, *Section 8.7* of the County Cavan Development Plan (CCDP) landscape categorisation describes the landscape of the county, with Landscape Character Areas (LCA) and Landscape Character Types (LCT) listed. There are five LCAs in County Cavan, which are not mapped in the Development Plan, but which are:

- LCA 1 - Cuilcagh-Anierin Uplands of West Cavan;
- LCA 2 - The Lakelands;
- LCA 3 - Lake Catchments of South Cavan;
- LCA 4 - Drumlin Belt and Uplands of East Cavan;
- LCA 5 - Highlands of East Cavan

In addition, there are several landscape designations. These include four High Landscape Areas, none of which are within the 20 kilometre radius of the site.

The CCDP lists a total of nine major lakes and environs which have amenity value due to their size and location within a scenic landscape, in addition to their recreational value. Lough Sheelin, Lough Gowna and Lough Ramor areas lie within the 20 kilometre radius of the Proposed Development. Lough Sheelin area was visited in order to ascertain visibility, as it lies within an area of theoretical visibility indicated by ZTV mapping (See Figure 12-5 in Section 12.6.2).

The Development Plan objectives for the lake areas as follows:

> *"**NHEO33:** To maintain the amenity value of major lakes and their environs within a landscape, recreational and ecological context by restricting and regulating development that would prejudice use and enjoyment of the areas, give rise to adverse visual impacts or threaten habitats through disposal of effluents".*
>
> *"**NHEO34:** To implement the above along the shorelines of these lakes and the immediate area adjoining, including skyline development on surrounding hill crests".*

There are a total of 17 no. Scenic Views and Viewing Points listed in Section 8.8 of the plan, as well as three scenic routes. None of these are within 20 kilometres of the Proposed Development and therefore screened out from further assessment in this LVIA.

12.4.5 DoEHLG 'Wind Energy Development Guidelines' (2006)

These guidelines offer guidance for the siting and design of wind energy developments in various landscape contexts by defining six landscape character types that represent most situations where wind turbines may be proposed. The guidance is intended to be indicative and general and notes that it, represents the 'best fit' solutions to likely situations.

The six landscape character types are:

- Mountain moorland
- Hilly and flat farmland
- Flat peatland
- Transitional marginal land
- Urban / industrial
- Coast

The guidelines note that where a wind energy development is located in one landscape character type but is visible from another, it will be necessary to decide which might more strongly influence the approach adopted for the assessment.

The Proposed Development site is located largely on flat, cutover peatland, with some areas of agricultural land and coniferous forestry. Of the 15 turbines, 12 are proposed on flat peatland, two are proposed on forestry and one on agricultural land. The Proposed Development site is predominantly located on cutover bog, a landscape that is best described as Flat Peatland as per the Wind Energy Development Guidelines 2006. The Proposed Development site, while mainly peatland, is surrounded by other extensive areas of peatlands as well as by agricultural lands and conifer plantations, within 20 kilometres of the site boundary. Certain areas in the wider landscape can be described as Flat Farmland, with small areas described as Hilly and Flat Farmland. In certain areas the turbines will be viewed from these landscapes. It is considered however, that in terms of the siting and design, the Flat Peatland landscape type most strongly influences the siting and design of the Proposed Development. This is discussed further below.

Key characteristics **Flat Peatland:**

- *Landscapes of this type comprise a vast planar extent of peatland, and have significant potential for future wind energy development*
- *In their relatively undisturbed and naturalistic state the wet bogs comprise a landcover mostly of heather, wild grasses and bog cotton, as well as patches of coniferous plantation*
- *Some of these bogs have been harvested for peat and may comprise long parallel ridges of stacked milled peat and deep drains*
- *Evidence of human habitation is sparse*
- *Roads tend to run in straight lines over considerable distances, followed by electricity and/or telephone lines and*
- *This landscape type is horizontal, open, extensive, and also characterised by a sense of remoteness*

The majority of the landscape's characteristics is described by the text above. However, evidence of human habitation is evident, not within the site itself but in the wider area. Guidance in relation to location, spatial extent and scale, spacing, layout, height and cumulative effect is provided for each

landscape character type in the DoEHLG guidelines. For **Flat Peatland** landscapes, these are detailed below:

> *"**Location:** Wind energy developments can be placed almost anywhere in these landscapes from an aesthetic point of view. They are probably best located away from roadsides allowing a reasonable sense of separation. However, the possibility of driving through a wind energy development closely straddling a road could prove an exciting experience."*
>
> *"**Spatial Extent**: The vast scale of this landscape type allows for a correspondingly large spatial extent for wind energy developments."*
>
> *"**Spacing:** Regular Spacing is generally preferred, especially in areas of mechanically harvested peat ridges."*
>
> *"**Layout:** In open expanses, a wind energy development layout with depth, preferably comprising a grid, is more appropriate than a simple linear layout. However, where a wind energy development is located close to a feature such as a river, road or escarpment, a linear or staggered layout would also be appropriate."*
>
> *"**Height:** Aesthetically, tall turbines would be most appropriate. In any case, in terms of viability they are likely to be necessary given the relatively low wind speeds available. An even profile would be preferred".*
>
> *"**Cumulative effect:** The openness of the vista across these landscapes will result in a clear visibility of other wind energy developments in the area. Given that the wind energy developments are likely to be extensive and high. It is important that they are not perceived to crowd and dominate the flat landscape. More than one wind energy development might be acceptable in the distant background provided it was only faintly visible under normal atmospheric conditions."*

The Proposed Development will address the above guidance in terms of spatial extent, spacing, layout, height and Cumulative effect. The spacing is relatively regular, while the layout can be described as staggered linear, which responds to its setting along the Inny River which lies to the west.

In terms of height, the proposed turbines are consistent with the DoEHLG guidance notes that *'aesthetically, tall turbines would be most appropriate'* in flat peatland sites. It is considered that the Proposed Development site, which comprises of an extensive area of cutover peatland, can accommodate turbines with a tip height of up to 175 metres.

This turbine type allows for the use of fewer, taller turbines with an increased efficiency and in return greater economic benefit to the consumer. The proposed tip height is similar to some of the most recent operational and currently permitted applications in flat peatland areas, which include the operational Oweninny Wind Farm in Co. Mayo, which has a permitted tip height of 176 metres. The permitted Yellow River Wind Farm in Co. Offaly which has a tip height of 166 metres, and the permitted Cloncreen Wind Farm, also in Co. Offaly, which has a tip height of up to 170 metres in height. The Meenwaun Wind Farm in Co. Offaly which is currently operational with a tip height of 169m.

With regard to Cumulative effects, there are no other wind farms in close proximity to the Proposed Development, and one turbine only within 20 kilometres of the Proposed Development at a distance of 16.7 km; see Section 12.7 – *Cumulative Baseline*.

The Proposed Development will be viewed across areas of extensive peatland from some locations, but it will also be visible from surrounding areas which have a character type best described as mostly Flat Farmland, and some areas which are undulating, characterised by agricultural fields and farms. Therefore, certain aspects of **Hilly and Flat Farmland** siting and design guidance are considered below, in relation to the wider study area.

The key characteristics of landscape type, some of which are relevant to the wider landscape study area, include:

- *"Intensively managed farmland, whether flat, undulating or hilly"*
- *"A patchwork of fields delineated by hedgerows varying in size"*
- *"Farmsteads and houses are scattered throughout, as well as occasional villages and towns"*
- *"Roads, and telegraph and power lines and poles are significant components; and*
- *A working and inhabited landscape type"*

While the turbines themselves are located on flat peatland, the siting and design recommendations which are relevant to certain areas of the wider study area, from which the turbines will be seen, include layout and cumulative effect:

> ***Layout*** *"The optimum layout is linear. Where a wind energy development is functionally possible on a flat landscape a grid layout would be aesthetically pleasing."*
>
> ***Cumulative effect*** *"It is important that the wind energy development is never perceived to visually dominate. However, given that these landscapes comprise hedgerows and often hills, and that views across the landscape will be intermittent and partially obscured, visibility of two or more wind energy development is likely to be acceptable."*

It is considered that in terms of cumulative effect, the proposed turbines will be seen from areas of Hilly and Flat farmland. However as there is only one permitted turbine within the 20-kilometre radius of the Proposed Development and this is more than 15 kilometres away, views will be intermittent. Therefore, this will be compatible with the above guidance for the wider landscape context.

12.5 Landscape Baseline

12.5.1 Site Location and Landscape Context

The Proposed Development site lies in western County Westmeath, adjacent to the boundary with Co. Longford. The Wind Farm Site is located approximately 2.4 kilometres north of Coole village (i.e. distance from Coole village centre to the main Wind Farm Site boundary). The town of Castlepollard is located approximately 6.7 kilometres southeast of the Wind Farm Site boundary, at its nearest point.

The Wind Farm Site consists of an area of cutover bog, forestry and low-intensity pastoral agriculture and is surrounded on most sides with coniferous plantation and / or natural woodlands and mature tree lines. In the wider landscape, there are considerable tracts of peatland in close proximity to the Wind Farm Site at Coole, which is one of a series of peatlands which extend along the Inny River, to the southwest of the Wind Farm Site to Lough Derravaragh. Areas of peatland are also found to the north of the Wind Farm Site around Lough Sheelin and Lough Kinale. These peatlands in general have intermittent visibility form the flatter areas of the landscape, while the extent of the peatlands is perceived from some views at higher elevations.

12.5.2 Drainage

The Wind Farm Site is traversed by the Glore River, which drains to the Inny, located within the Shannon drainage catchment. The Inny River runs close to the western boundary of the Wind Farm Site, and forms the County Boundary, flowing between Derragh Lough and Lough Kinale, located approximately 1.9 kilometres north of the Wind Farm Site, and Lough Derravaragh, located approximately 5.7 kilometres south of the Wind Farm Site (see Figure 12-3 above). The Wind Farm Site also features an extensive drainage system associated with the commercial peat harvesting activities.

12.5.3 Landcover

The landscape of the site is largely flat, cutover peatland, forestry and agricultural land with areas of forestry adjacent to the site boundary. Plate 12-1 below shows a view in the north of the Wind Farm Site.

A view of the cutover bog with regenerating scrub is shown in Plate 12-2 below, with coniferous plantation to the rear of the image, and deciduous trees along the local road which runs east-west through the Wind Farm Site.

The Habitat Map records the majority habits as approximately 68% cutover bog, and approximately 23% coniferous forestry along with a number of other habitats as outlined in Chapter 6 - Biodiversity.

Plate 12-1 View of cutover peat and trees in background - northern section of Proposed Development site

Plate 12-2 View of cutover peat and trees in background - northern section of Proposed Development site

The Wind Farm Site is largely surrounded with areas of tree cover, particularly to the east and west along the R-394 and R-396 respectively. However, in certain areas along the R394 there are some open views where there is no forestry or felling has occurred. Plate 12-3 (below) shows the road directly to the west of the Wind Farm Site.

Plate 12-3 View of roadside vegetation to west of site along R396 southwest of site

Tree planting is also evident along the northern boundary of the Wind Farm Site. A local road L5755 traverses the Wind Farm Site from east to west. This road has a mixture of generally open views with some screening by deciduous trees and shrubs, allowing more open views of the Wind Farm Site. This is shown in Plate 12-4 below.

Plate 12-4 Open view from section of local road traversing the site

12.5.4 Topography

The topographical features existent in the LVIA study area are illustrated int Figure 12-3 below. The Wind Farm Site itself lies in a flat, inland area of cutover bog, forestry and agricultural land as noted above. Within 20 kilometres of the Wind Farm Site, the topography around the site is generally flat bogland interspersed with coniferous plantations and wood lands, which gives way to flat and gently undulating agricultural fields, numerous lakes and several small settlements. Landmarks include the Rock of Curry – the nearest hill at approximately 190 metres OD- and Hill of Mael in a more undulating topography to the east of the Wind Farm Site, while the land to the west of the Wind Farm Site is flatter. To the southeast, higher ground is found around Lough Lene and Lough Owel.

The topography of the Wind Farm Site itself appears almost flat, with any changes in level barely noticeable on the ground, as is shown in Plate 12-5 and Plate 12-6 below. The levels range from approximately 60(T8) to 73m(T5) AOD. The fact that the Wind Farm Site is almost surrounded by trees reduces views of the peatland from the flat topography and roads surrounding the Wind Farm Site.

Plate 12-5 View of flat topography near centre of Proposed Development site at Coole

County Longford

County Cavan

Lough Gowna

Lough Sheelin

Granard Motte

Lough Kinale

Mullaghmeen

Slieve na Callaigh (Loughcrew)

The Rock of Curry

The Hill of Moat

5 km

10 km

15 km

20 km

Lough Derravaragh

Lough Lene

Frewin Hill

Lough Owel

County Meath

County Westmeath

Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- County Boundary

Elevation Above Ordnance Datuum

- 50 Metres
- 75 Metres
- 100 Metres
- 125 Metres
- 150 Metres
- 175 Metres
- Elevation Contours - 10 metre Interval
- Topographical Landscape Feature
- Lakes & Waterbodies

Drawing No.

Figure 12-3

Drawing Title

Topography and Landform

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:155000	200445	03.03.2021	JW	EC

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Plate 12-6 View of flat topography in the northern section of the Proposed Development site at Coole.

12.5.5 Summary of the Receiving Landscape

Landscape character refers to the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how people perceive this. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement, and creates the particular sense of place found in different areas. The identification of landscape character as outlined in the DoEHLG Guidelines (2000) comprises the identification of primarily physical units (areas defined by landform and landcover) and, where appropriate, of visual units.

The Wind Farm Site comprises an area of cutover bog, forestry and pastoral agricultural land, surrounded on most sides with coniferous forestry plantations and wood lands. A view of the Wind Farm Site is shown in Plate 12-7 below. In the wider landscape, there are considerable tracts of peatland in close proximity to the Wind Farm Site at Coole. The site is one of a series of peatlands which extend south-south-west along the Inny River towards Lough Derravaragh. Areas of peatland are also found to the north of the Wind Farm Site around Lough Sheelin and Lough Kinale. These peatlands in general have intermittent visibility form the flatter areas of the landscape, while the extent of the peatlands is perceived from some views at higher elevations.

Beyond the peatland and coniferous forestry, the site is surrounded by tracts of agricultural land which are flat or gently undulating in the immediate vicinity of the Wind Farm Site, as seen in Plate 12-7 below. The Inny River flows along part of the western boundary of the Wind Farm Site.

Plate 12-7 View towards the Proposed Development site from the north-west, showing a flat and gently undulating agricultural landscape of fields bordered by hedgerows and interspersed with clusters of deciduous trees.

The areas of agricultural land surrounding the Wind Farm Site are interspersed with areas of woodland such as that at Mullaghmeen, as well as woodland associated with demesne landscapes near Castlepollard, such as Tullynally Castle.

Lakes are also a feature of the wider landscape, Lough Kinale, Lough Sheelin and Lough Derravaragh being the closest to the Wind Farm Site (see Figure 12-3 above). To the east and south of the Wind Farm Site, the flat land becomes undulating, and increases in elevation, and distinctive elements include the Rock of Curry, the Hill of Mael (see Plate 12-8 below) and Mullaghmeen areas.

Plate 12-8 View of Rock of Curry/Hill of Mael from the R395 east of the site

Higher ground is found to the south-east of the Wind Farm Site around Lough Lene. South of the Wind Farm Site lies lough Derravaragh, and Lough Owel, which is surrounded by higher topography. To the east, the landscape is flatter, higher ground being found near Granard and east of Edgeworthstown. The area within 20 kilometres of the Wind Farm Site therefore contrasts between lakes, lowland agricultural lands, peatlands and forestry, as well as elevated areas including several hills which are seen as landmarks. Further east, in County Meath, the hills at Loughcrew are also important landmarks.

12.5.5.1 Landscape Value

In order to determine landscape sensitivity, and ultimately the likely significance of the effects, assessments of landscape value for the Proposed Development site and wider LVIA Study area were assessed. Landscape value includes designations such as scenic views and sensitivity designations found in relevant Development Plans, as well as values which are attached to undesignated landscapes. A number of criteria were developed in order to assess the landscape values of the study area. These then contribute to the assessment of landscape sensitivity.

Table 12-5 Features of Landscape Value

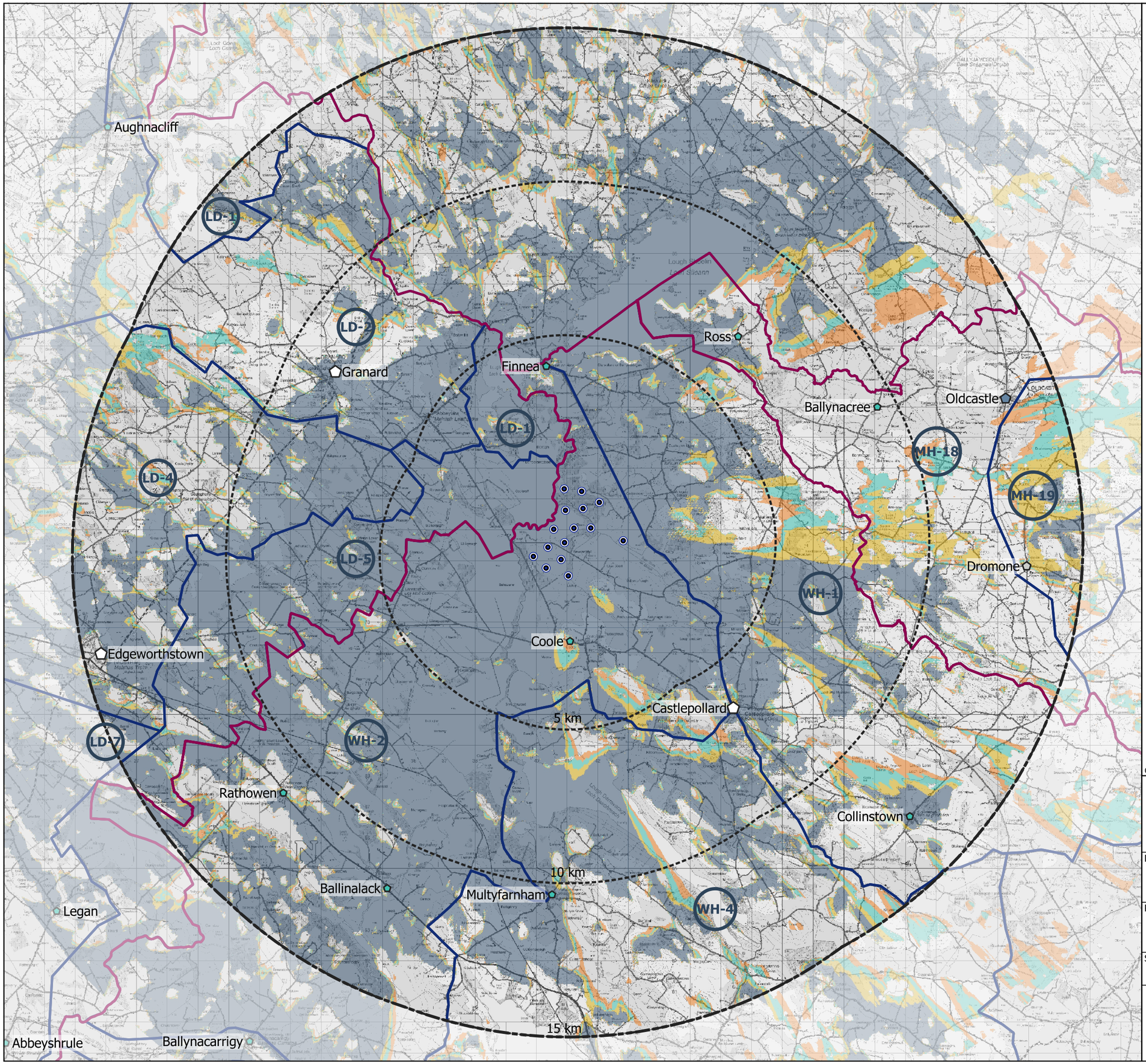
Feature	Description
Landscape Designations	No Landscape designations are found on the site itself, however, a number of designations exist in the wider LVIA Study Area. These designations are indicated in Development Plans or other documents, e.g. Scenic Views and Routes - see Section 12.6.4 of this EIAR which indicate areas/elements/views that are valued. Some areas include protected views, and Areas of High Amenity - See Figure 12-1.
Landscape Quality/Condition	This refers to the physical state of the landscape, and the condition of individual elements. The Wind Farm Site itself and the majority of other peatlands are largely modified and degraded. Other landscape elements such as areas of woodlands including Demesne landscapes appear in good condition.
Aesthetic Qualities	The site itself has few notable aesthetic qualities, but has some views to the surrounding hills. Some views from hills – Lough Crew, Frewin Hill and Mullaghmeen, and views of the lakelands have high aesthetic quality, and are designated scenic amenity in the relevant County Development Plans.
Wildness/naturalness	The landscape of the site has been largely modified by industrial peat harvesting, conifer plantation and agriculture, and does not retain many wild qualities. Adjoining deciduous woodland and the wider landscape have areas of wildness and naturalness, including the lakes, hills and woodlands.
Rarity/Conservation Interests	See Chapter 6 - Biodiversity
Cultural Meaning/Associations	There are no evident cultural associations with the site itself, apart from the general cultural associations with

Feature	Description
	bogs and turf cutting. In the wider landscape, cultural associations exist – the Tain Trail is signposted to the east and south of the site, near Mullaghmeen and Lough Derravaragh, while Lough Derravaragh itself is associated with the legend of the Children of Lir.
Recreation Value	The site itself is not a recreation area, however an objective exists to extend the Westmeath Way through the site. Other trails in the area include the Tain Trail and the Mullaghmeen recreational trails, as well as the Fore Trail (also known as St Feichín's Way).

12.5.6 Landscape Character of the Wider LVIA Study Area

As noted in Section 12.3.4 and Section 1.1 of the Methodology Appendix (Appendix 12-1), the LVIA Study Area for assessment of effects on landscape character extends to 15 km from the proposed turbines. Figure 12-4 (below) shows the 9 no. designated Landscape Character Areas (LCAs) (and Landscape Units for County Longford) that are located within 15 km of the Proposed Development.

As there are no designated Landscape Character Areas in County Cavan and very limited areas of theoretical visibility of the Proposed Development, County Cavan has been precluded from further assessment of landscape character.



Map Legend

- Turbines of the Proposed Development
- LVIA Study Area for Landscape Character- 15km
- County Boundary

Settlement Hierarchy

Half Blade ZTV

- 1-3 Turbines Visible
- 4-7 Turbines Visible
- 8-11 Turbines Visible
- 12-15 Turbines Visible

Landscape Character Areas

- WH LCA 1 - Northern Hills and Lakes
- WH LCA 2 - Inny River Lowlands
- WH LCA 4 - Central Hills and Lakes
- MH LCA 18 - Lough Sheeling Uplands
- MH LCA 19 - Loughcrew and Slieve na Calliagh Hills
- LD LCU 1 - Northern Drumlin Lakeland
- LD LCU 2 - Northern Upland
- LD LCU 4 - Central Corridor
- LD LCU 5 - Inny Basin

Drawing No.

Figure 12-4

Drawing Title

Landscape Character Areas and ZTV

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:120000	200445	03.03.2021	JW	EC

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As demonstrated in Figure 12-4 above, the turbines of the Proposed Development are located in the County Westmeath Landscape Character Area - *LCA 2 Inny River Lowlands.* The other 8 no. Landscape Character Areas are listed below (WH – Westmeath; MH – Meath; LD – Longford):

- WH LCA 1 - Northern Hills and Lakes
- WH LCA 4 - Central Hills and Lakes
- MH LCA 18 - Lough Sheeling Uplands
- MH LCA 19 - Loughcrew and Slieve na Calliagh Hills
- LD LCU 1 - Northern Drumlin Lakeland
- LD LCU 2 - Northern Upland
- LD LCU 4 - Central Corridor
- LD LCU 5 - Inny Basin
- LD LCU 7 - Open Agricultural

Figure 12-4 illustrates the geographical extent of the LCAs in the LVIA study area and the distribution of theoretical visibility of the Proposed Development in each LCA, as indicated by a ZTV map. A comprehensive description of ZTV mapping is detailed in Section 1.3 of the methodology Appendix – *Appendix 12-1.* A detailed assessment of ZTV mapping in relation to the Proposed Development is discussed further in the next section of this chapter - *Section 12.6.2.*

12.5.6.1 LCA Preliminary Assessment

Having identified and located the LCAs existent within the LVIA study area for landscape character, a preliminary assessment was conducted using the ZTV mapping in Figure 12-4 to screen out LCAs that will not be impacted by the Proposed Development and identify LCAs requiring further assessment.

Several LCAs identified in the LVIA Study Area (for landscape character) have small areas located within 15 km of the Proposed Development and small areas of theoretical visibility indicated by the ZTV map. Over the course of multiple site visits, the potential visibility of the Proposed Development was appraised on site from all LCAs with very limited or partial theoretical visibility. On the basis of these pre-assessment exercises, only LD LCU 7 - Open Agriculture was screened out from further assessment. A contributing factor in the preclusion of LD LCU 7 is that a very small portion of this LCA (0.7%) is actually located within the study area for assessment of landscape character. Therefore, the LCAs shown in Table 12-6 below have been selected for assessment due to their visibility within the study area and the potential landscape effects that may arise as a result of the Proposed Development.

Table 12-6 Landscape Character Areas screened -In for assessment of landscape effects.

Landscape Character Area with visibility of the Proposed Development found on site and indicated by ZTV Mapping and field surveys - Screened In for further Assessment.
WH LCA 2 Inny River Lowlands
WH LCA 1 – Northern Hills and Lakes
WH LCA 4 – Central Hills and Lakes
MH LCA 18 – Lough Sheeling Uplands
MH LCA 19 – Loughcrew and Slieve na Calliagh Hills

LD LCU 1 - Northern Drumlin Lakeland
LD LCU 2 – Northern Upland
LD LCU 4 – Central Corridor
LD LCU 5 – Inny Basin

A detailed description of the LCAs listed in Table 12-6 are presented in the Landscape Character Assessment Tables that form Appendix 12-2. For each LCA, Appendix 12-2 determines the likely significant effects on landscape character as a result of the Proposed Development. A summary of these effects on landscape character are included in Section 12.8.2 of this chapter, Operational Phase Effects.

12.6 Visual Baseline

12.6.1 Introduction

The main purpose of establishing the visual baseline is to identify the key visual receptors that should be considered in the visual impact assessment further and the viewpoints to be selected for the production of photomontages to help visualise how the Proposed Development will appear in the landscape. To this end the following visual receptors have been identified in order of priority:

- Designated scenic routes
- Settlements
- Recreational and tourist destinations
- Recreational routes
- Transport Routes

Details of these visual receptors are listed and in tables detailed in Section 12.6.4 below along with theoretical visibility at those locations indicated by the ZTV maps. All visual receptors are shown in Figure 12-8.

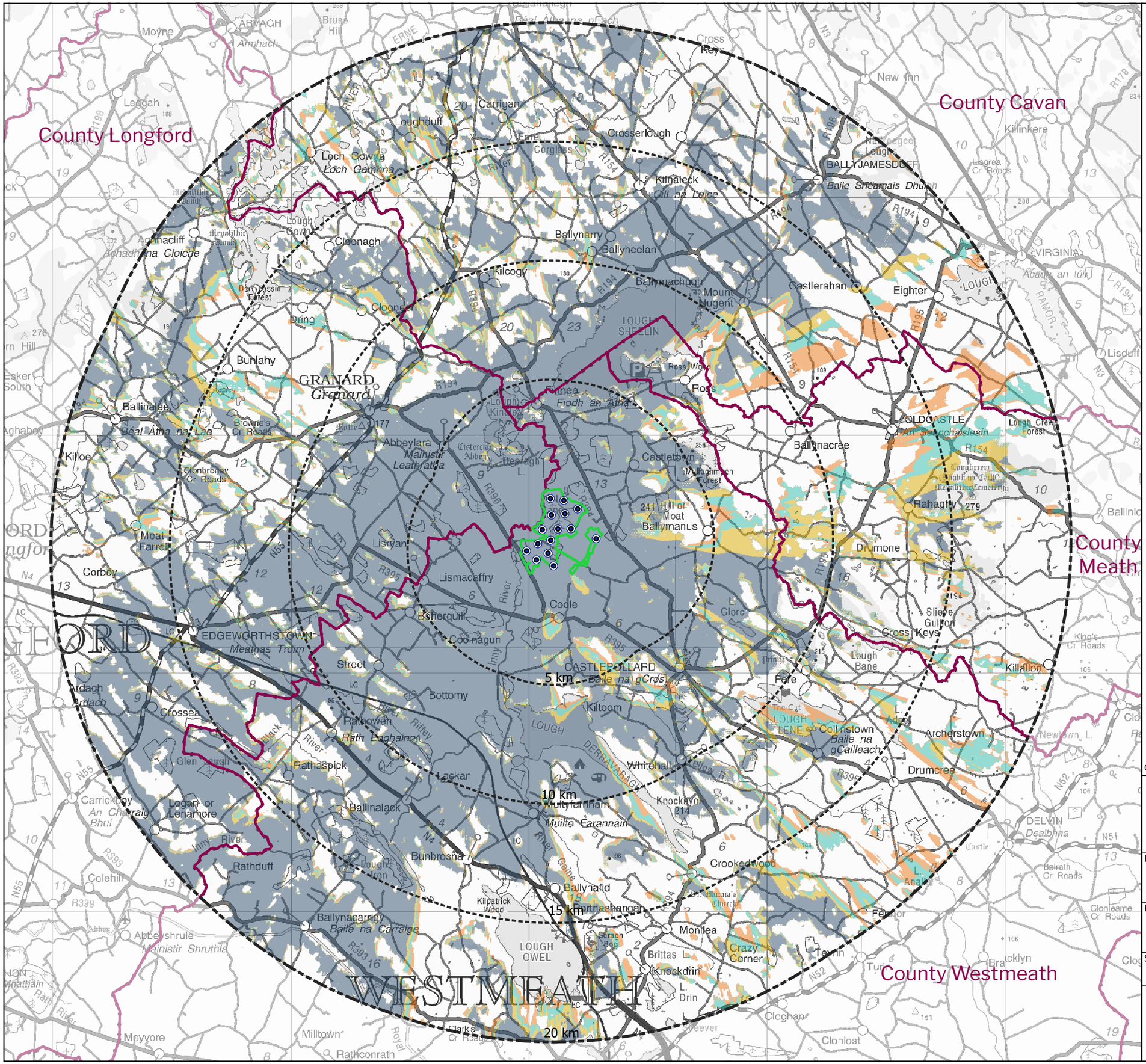
12.6.2 Zone of Theoretical Visibility (ZTV)

Maps showing the Zone of Theoretical Visibility (ZTV) have been prepared for the Proposed Development, using the methodology described in Appendix 12-1. The ZTV maps show theoretical visibility of the proposed wind farm using the half-blade height of the proposed wind turbines as points of reference. The area covered by the ZTV maps has a radius of 20 kilometres from the outer-most proposed turbines. ZTV maps assume a 'bare ground' scenario, i.e. no land-cover, representing visibility of the proposed wind farm in the absence of all natural and manmade features from the landscape, including vegetation, houses and other buildings. In reality, such features will restrict or limit visibility of the wind turbines, due to the screening effects of vegetation, for example forestry and road-side hedgerows and trees, and buildings, particularly within towns and villages.

Two ZTV maps have been prepared:

- Figure 12-5 shows the theoretical visibility of the proposed Coole turbines using the half blade height as a point of reference.
- Figure 12-6 is a comparative ZTV map. It shows the additional theoretical visibility of the 15-turbine layout of the Proposed Development in comparison to the permitted 13 turbine layout of Coole Wind Farm.

Figure 12-3 (seen previously in Section 12.5 - *Landscape Baseline*) shows the topographical features and elevation gradients existent within the landscape of the LVIA study area. The geography of these topographical landforms define the distribution of theoretical visibility illustrated in the ZTV maps.



Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- EIAR study Boundary
- County Boundary

Half Blade ZTV

- 1-3 Turbines Visible
- 4-7 Turbines Visible
- 8-11 Turbines Visible
- 12-15 Turbines Visible

Drawing No.

Figure 12-5

Drawing Title

Zone of Theoretical Visibility Map

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:155000	200445	03.03.2021	JW	EC

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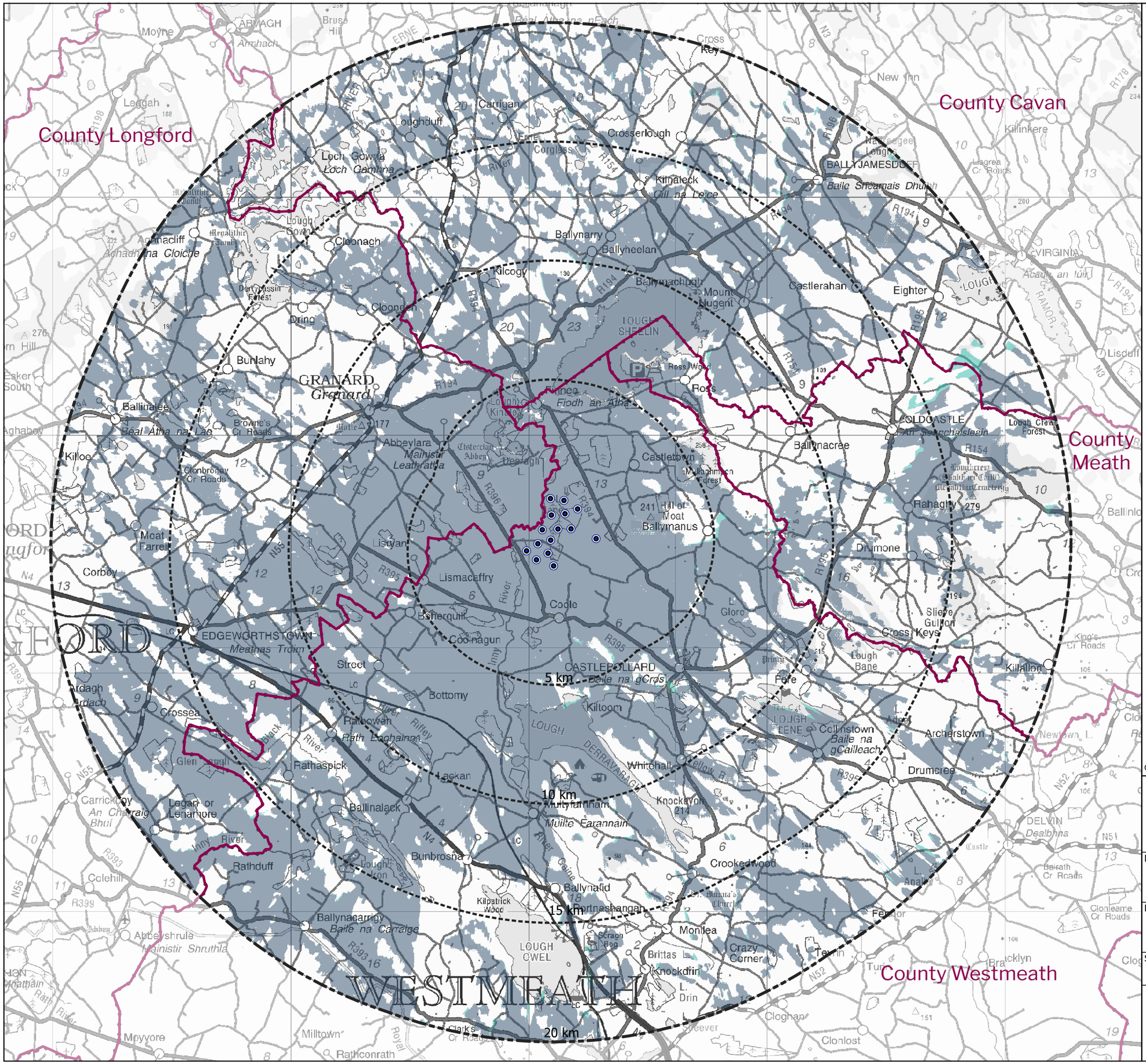

Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- County Boundary

Comparative Half Blade ZTV

- Theoretical Visibility of the 2017 Application (13 Turbine Layout)
- Additional Theoretical Visibility of the Proposed Optimisation (15 Turbine Layout)

Drawing No.

Figure 12-6

Drawing Title

Comparative ZTV Map

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:155000	200445	03.03.2021	JW	EC

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12.6.2.1 Description of ZTV Maps

12.6.2.1.1 *Theoretical Visibility of the Proposed Development 15 Turbine Layout Versus Permitted 13 Turbine Layout.*

This section describes the theoretical visibility using a comparative Half Blade ZTV map (Figure 12-6) to determine how much additional theoretical visibility will occur as result of the additional two turbines (T14 and T15) in comparison to the distribution of theoretical visibility of the previously permitted 13 turbine layout. The ZTV is divided into colour bands which represent visibility as follows:

- Grey/Blue: Theoretical Visibility of the Permitted 13 turbine layout
- Light Green: Additional theoretical visibility caused by the proposed 15 turbine layout.

As stated above, the ZTV shows theoretical visibility and takes no account of screening by vegetation and buildings. In flat landscapes such as this, vegetation screening is usually a key determinant of visibility. The ZTV maps are therefore more useful in determining where the turbines will not be visible from rather than where they will be visible from.

The differential ZTV map indicates that only a very small proportion (0.09%) of the study area that did not previously afford theoretical views of the permitted wind farm, would afford views of the optimized development. The increased visual exposure is contained to the north-east of the study area, with small patches of theoretical visibility indicated to the north and south. In these patches where the mapping indicates theoretical visibility, it should be noted that the increase in theoretical visibility is in small sections so that none of the sensitive receptors will experience a notable increase in viewing exposure. There are also no new receptors introduced to a potential impact where none would have existed under the permitted scheme.

From between 10-20 kilometers from the Wind Farm Site, the pattern of theoretical visibility becomes much more sporadic and includes considerable areas which have no visibility. A patch of additional theoretical visibility is shown to the north-east. Photomontages 9, 11, 12, 14, and 18 illustrate actual visibility of the site. Locations where images were taken and no views available were not included in the photomontage booklet. These include much of the N4 route which has full theoretical visibility but due to screening there are very few open views.

12.6.3 Views Towards Wind Farm Site

A total of twenty-two viewpoint locations were used in the preparation of the photomontages, included in the Volume 2 photomontage booklet. Viewpoints VP01 to VP22 are described in Table 12-7 below and described in detail in Appendix 12-3. The location of viewpoints are shown in Figure 12-7 as well as in the AO LVIA Baseline map (Appendix 12-4). It is important to note that these are tools to assist the visual assessment, and the visibility from these locations is discussed further in Section 12.9.

Please Note: Viewpoint 22 'Fore Abbey' is included in the Volume 2 photomontage booklet and an assessment is included in Appendix 12-3. However, VP22 has been prepared to assess the potential impacts of the Proposed Development on an archaeological site, this assessment is included in the Cultural Heritage chapter of this EIAR - *Chapter 13*.

It is not possible to present every view and every location in photomontages. The panoramic views presented in the photomontages represent as wide a view as possible from the photo locations. The choice of viewpoint locations is influenced by both the view available and the type of viewer and includes viewpoint locations from or close to local settlements, such as Coole village, Castlepollard, Lismacaffrey, Multyfarnham, Finnea, Abbeylara, and a number of viewpoints from scenic areas or

protected views, as well as locations where there are extensive or panoramic views, both in Westmeath and Counties Longford, Meath and Cavan.

The SNH Guidance (2017) also advises that a range of views should be shown at a range of distances and aspects, as well as at varying elevations and showing both where the Proposed Development will be completely visible as well as partially visible, and these are reflected in the choice of viewpoint locations. Views are taken from different landscape character areas in the vicinity of the site. A considerable proportion of the views (11) are taken within 5 kilometres of the Wind Farm Site, where visual effects are likely to be greatest.

Viewpoints include locations in and around Coole Village and other settlements as detailed above, the Regional Roads close to the site, local roads, locations close to and at the location of protected views, and within High Amenity or other designated scenic areas and publicly accessible areas which are used for recreation.

In general, photomontages are presented where there is some visibility of the turbines. In some cases however where the location is considered particularly important, views have also been included in the Photomontage Booklet even where there is little or no visibility. In addition to the photomontages, visibility is also discussed in Section 12.9.

The choice of viewpoints also included locations at Granard Motte, the Inny River in Co. Longford, as well as Mullaghmeen forest, which were requested by Westmeath County Council in the Further Information Request on the previous application. Two of these viewpoints are in Co Longford, Viewpoint 18 Granard Motte is the view from the Motte itself over the surrounding landscape looking east. A photomontage (Viewpoint 19) of the Inny River in Co. Longford is taken at Camagh Bridge, the location closest to the site where the Inny River is visible from a publicly accessible location in Co. Longford. Viewpoint 21 is taken along Inny River at Mayne Bridge, in Co. Westmeath, to further illustrate the visual impact on this river in close proximity to the Wind Farm Site.

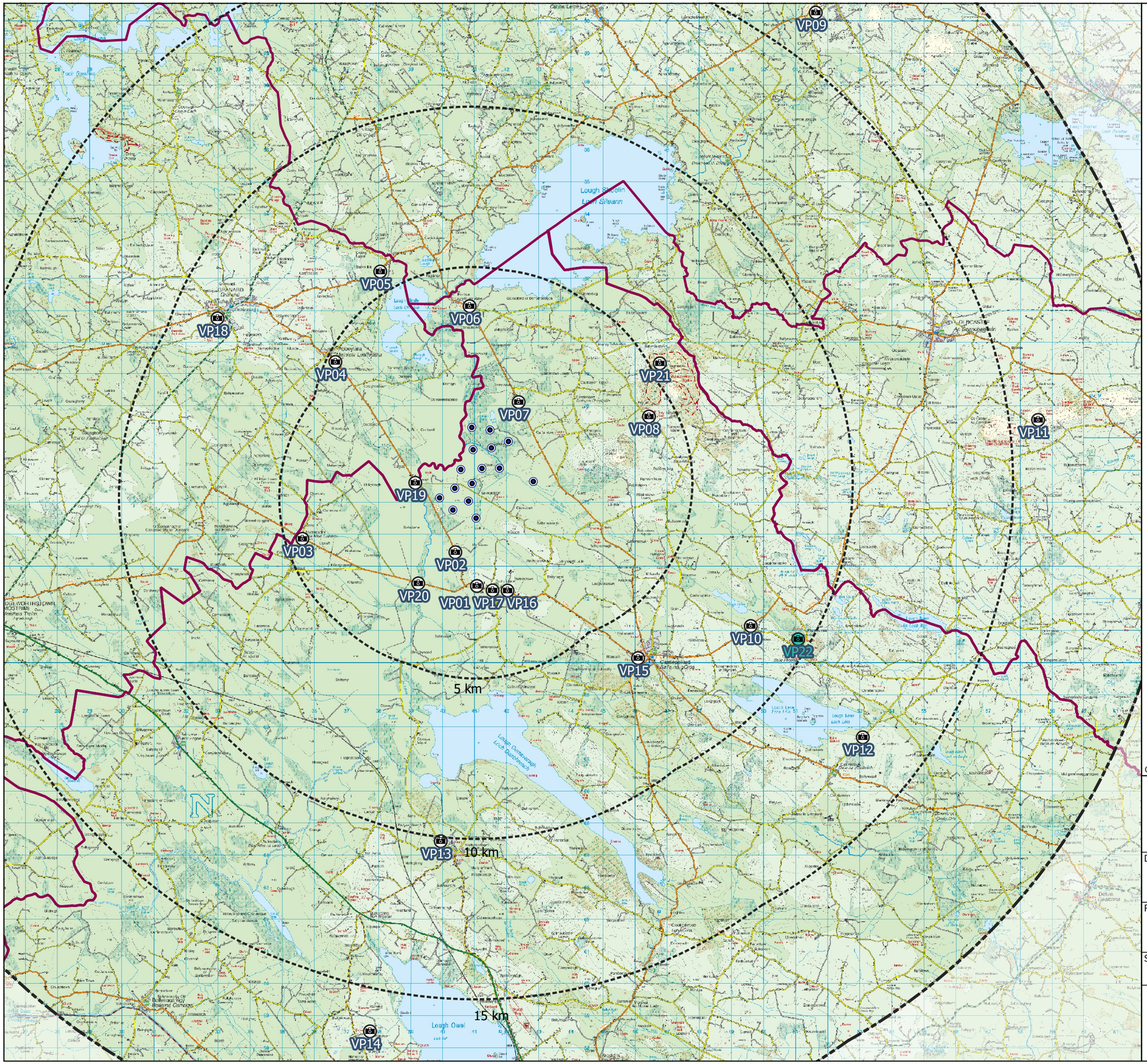
Table 12-7 Viewpoints selected for the preparation of photomontages.

Viewpoint No.	Description	Grid Reference Coordinates
01	View from the R395 Regional Road in the village of Coole. This viewpoint is located at County Westmeath protected view no. 49 and is located approximately 2.1 km south of the nearest turbine.	E 241070 N 272405
02	View from the R396 Regional Road in the townland of Coole, approximately 1.2 km south of the nearest turbine.	E 240398 N 273456
03	View from the R395 Regional Road at in the townland of Athenboy, approximately 4.45 km south-east of the nearest turbine. The viewpoint is located within the residential cluster of Lismacaffrey in close proximity to Lismacaffrey National School.	E 235625 N 273874
04	View from the Regional Road R396 in the townland of Cloonaghmore. The viewpoint is in close proximity to the small village of Abbeylara and is approximately 4.6 km northwest of the nearest turbine.	E 236642 N 279402

05	View form the Regional Road R194 in the townland of Ballywillin, approximately 5.6 km northwest of the nearest turbine.	E 238055 N 282208
06	View from the R394 Regional Road in the townland of Finnea, approximately 3.8 km north of the nearest turbine.	E 240842 N 281128
07	View from the R394 Regional Road in the townland of Carlanstown approximately 1.2 km northeast of the nearest turbine.	E 242372 N 278137
08	View from the local road in the townland of Littlewood, north of protected view 51, approximately 4.1 km east of the nearest turbine.	E 246436 N 277686
09	View from the local road in the townland of Ramonan, approximately 16.5 km north of the nearest turbine.	E 251631 N 290279
10	View from the R195 Regional Road in the townland of Lakill, looking towards Lough Glore, approximately 8.1 km southeast of the nearest turbine.	E 249639 N 271186
11	View from Sliabh na Calliagh (Lough Crew) a National Monument, in the townland of Corstown, approximately 15.9 km east of the nearest turbine.	E 258614 N 277576
12	View form the local road and protected view north of Colinstown, approximately 12.9 km southeast of the nearest turbine.	E 253110 N 267688
13	View from the local road in the townland of Abbeyland, approximately 10.1 km south of the nearest turbine location.	E 239941 N 264446
14	View from the top of Frewin Hill, a National Monument and close to a protected view, in the townland of Wattstown, approximately 16.3 km south of the nearest turbine.	E 237734 N 258518
15	View from the outskirts of Castlepollard, in the townland of Townparks, approximately 6.3 km southeast of the nearest turbine.	E 246098 N 270155
16	View from the R395 Regional Road at Fearmore, Coole village, approximately 2.4 km southeast of the nearest turbine.	E 242026 N 272261
17	View from the R395 Regional Road at Coole Village, in the townland of Coole, approximately 2.3 km southeast of the nearest turbine.	E 241556 N 272257
18	View from Granard Motte in the townland of Moatfield, approximately 8.6 km from the nearest turbine.	E 232979 N 280749

19	View from the R396 Regional Road in the townland of Camagh, Co. Longford, approximately 0.9 km from the nearest turbine.	E 239148 N 275622
20	View from the R395 Regional Road in the townland of Mayne, approximately 2.5 km from the nearest turbine	E 239242 N 272484
21	View from the cairn at Mullaghmeen, approximately 5.3 km from the nearest turbine	E 246779 N 279354
22	View from Fore Abbey in the townland of Fore, approximately 9.6 km from the nearest turbine.	E 251090 N 270744

*An assessment of photomontage Viewpoint 22 (Fore Abbey) is included in Chapter 13 - *Cultural Heritage* as it forms part of the archaeological assessment.



Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- County Boundary
- Photomontage Viewpoint Locations Volume 2 Photomontage Booklet
- Fore Abbey Archaeology Photomontage

Drawing No.

Figure 12-7

Drawing Title

Photomontage Viewpoint Locations

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:115000	200445	10.03.2021	JW	EC

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12.6.4 Visual Receptors

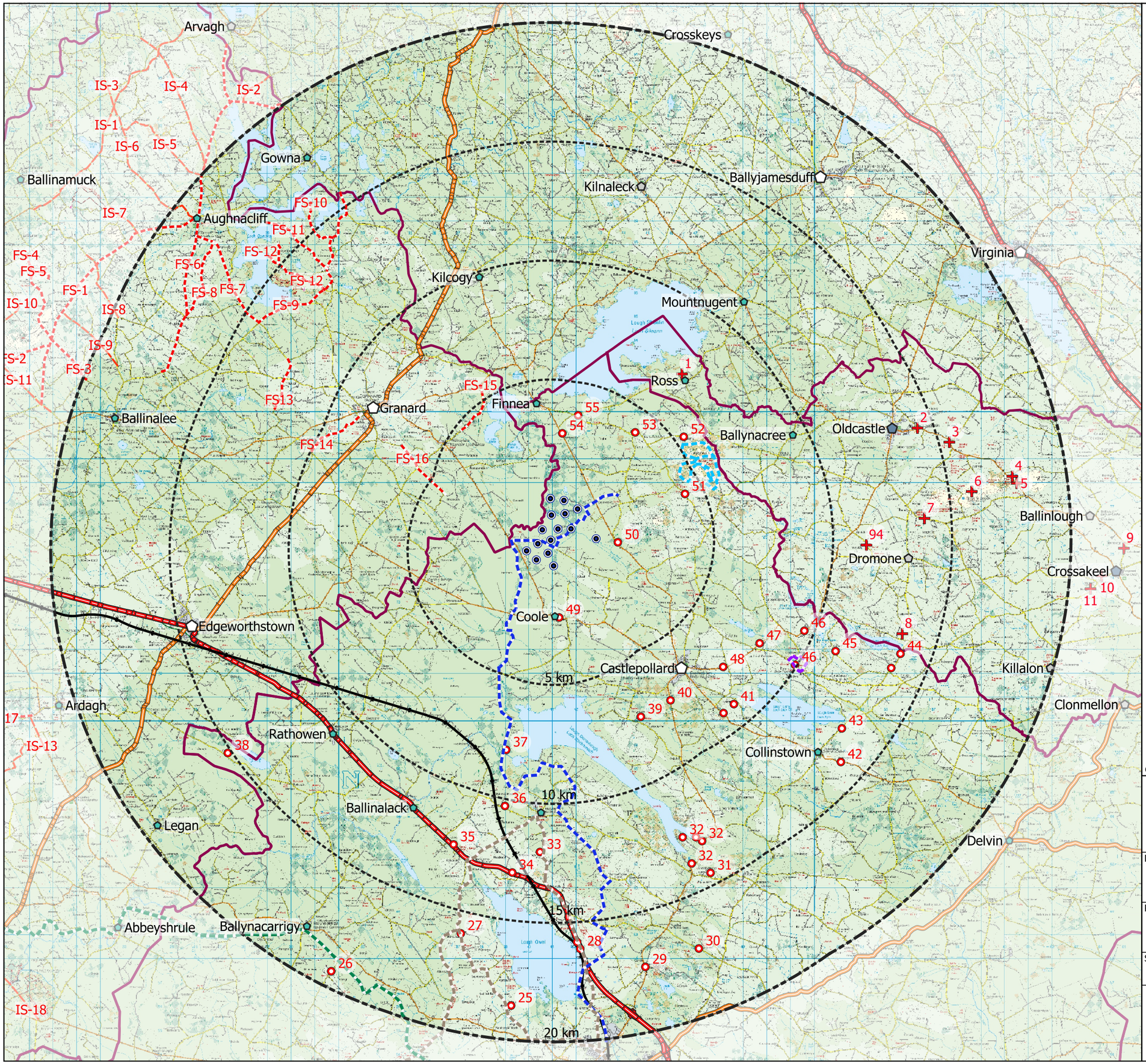
12.6.4.1 Designated Scenic Routes

Table 12-8 below describes the theoretical visibility of the Proposed Development from the scenic routes that are located within the LVIA study area boundary, as illustrated on the visual baseline and ZTV map, Figure 12-9 seen below. The Scenic Routes within the study area are all contained to Co. Longford, there are scenic routes designated within the jurisdiction of Co. Westmeath, Co. Meath, and Co. Cavan however, they do not lie within the study area.

Table 12-8 Theoretical visibility from scenic routes as designated in Longford County Council within LVIA study area

Destination	Description	Theoretical Visibility
Longford County Council		
0 to 5 kms – There are no scenic routes within 5 km of the site.		
5 to 10 km		
F.S14	Located South West of Granard, between Granard town and the townland of Ballymacroly.	There is no additional theoretical visibility shown in the comparative ZTV. Actual visibility is limited by distance and local screening,
F.S15	Located West of Lough Kinale, between Ballywillin and Abbeylara.	There is no additional theoretical visibility shown in the comparative ZTV. Actual visibility is limited by distance and local screening,
F.S16	Located South West of Abbeylara and runs North West to South East.	There is no additional theoretical visibility shown in the comparative ZTV. Actual visibility is limited by distance and local screening,
10 to 20 km		
F.S-1	Located in the townland of Clontumper, Esker South, Drumnacooha, Derrynacross, Cornafunshin, Lettergonnell, Aghadowry, Glenmore (Longford By), Fostragh, Rathmore (Granard By).	Intermittent theoretical visibility of the Proposed Development. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-6	Located in the townland of Drumhalry, Rosduff, Enaghan, Lisraherty, Smear, Cleenrah, Rathmore (Granard By), Aghnacliff, Carrickadorrish,	Intermittent theoretical visibility of the Proposed Development. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.

Destination	Description	Theoretical Visibility
	Aghacordrinan, Aghakeeran, Molly, Gelshagh, Aghagreagh, Lislea (Granard By).	
F.S-7	Located in the townland of Aghnacliff, Aghakine, Culray	Intermittent theoretical visibility of the Proposed Development. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-8	Located in the townland of Aghakine, Sonnagh, Aghakeeran, Molly.	Theoretical visibility along majority of route. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-9	Located in the townland of Culray, Ballinrooey, Ballinulty Lower, Dring, Derrycassan, Mullinroe, Larkfield, Cloonagh (Granard By), Kilmore.	Intermittent theoretical visibility of the Proposed Development. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-10	Located in the townland of Aghanoran, Cloonagh (Granard By).	Limited theoretical visibility to the north of this route. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-11	Located in the townland of Larkfield	Small patch of theoretical visibility mid-way along this route. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-12	Located in the townland of Derrycassan	Intermittent theoretical visibility of the Proposed Development. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
F.S-13	Located in the townland of Tober, Coolcor, Ballymore.	Patch of theoretical visibility mid-way along this route. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.



Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- County Boundary

Visual Receptors

- Westmeath Designated Protected Views (WCDP 2014-2020)
- Meath Designated Views and Prospects (MCDP 2013-2019)

Longford Designated Scenic Routes & Views (LCDP 2015-2021)

- Full View
- Intermittent View

Settlement Hierarchy (Standardised / Inter-County)

- Service Town
- Small Town
- Village
- Small Village
- The Westmeath Way - Walking Trail
- The Fore Trail - St. Feichín's Way
- Mullaghmeen - Coillte Recreational Trails
- Royal Canal Way & Greenway
- Mullingar Cycle Hub Loops
- National Primary Road - Transport Route
- National Secondary Road - Transport Route
- Rail Network

Drawing No.

Figure 12-8

Drawing Title

Visual Baseline - Map of Visual Receptors

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:155000	200445	18.03.2021	JW	EC

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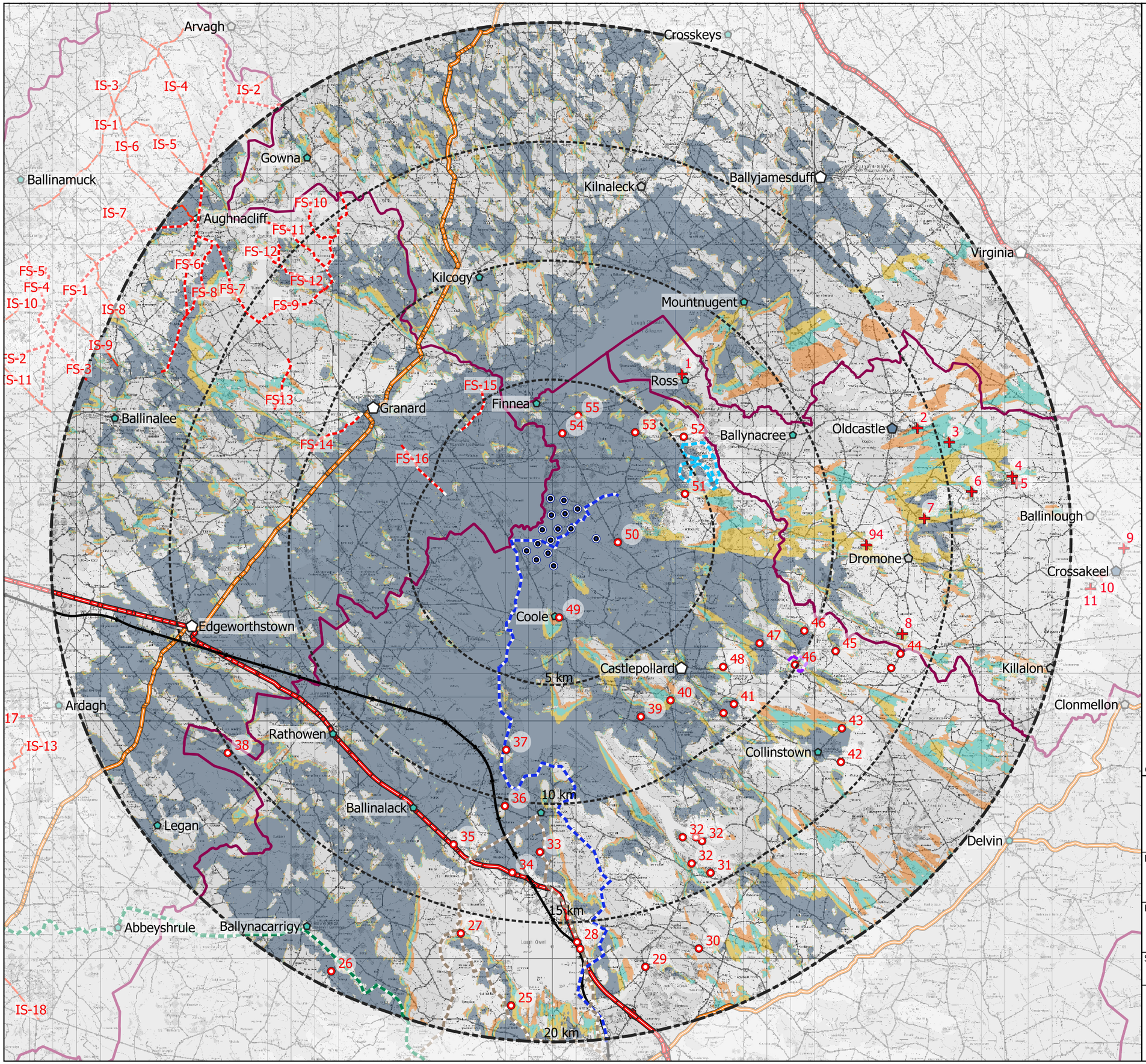

Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- County Boundary

Half Blade ZTV

- 1-3 Turbines Visible
- 4-7 Turbines Visible
- 8-11 Turbines Visible
- 12-15 Turbines Visible

Visual Receptors

- Westmeath Designated Protected Views (WCDP 2014-2020)
- Meath Designated Views and Prospects (MCDP 2013-2019)

Longford Designated Scenic Routes & Views (LCDP 2015-2021)

- Full View
- Intermittent View

Settlement Hierarchy (Standardised / Inter-County)

- Service Town
- Small Town
- Village
- Small Village
- The Westmeath Way - Walking Trail
- The Fore Trail - St. Feichín's Way
- Mullaghmeen - Coillte Recreational Trails
- Royal Canal Way & Greenway
- Mullingar Cycle Hub Loops
- National Primary Road - Transport Route
- National Secondary Road - Transport Route
- Rail Network

Drawing No.

Figure 12-9

Drawing Title

Visual Baseline & Half Blade ZTV

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:155000	200445	18.03.2021	JW	EC

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12.6.4.2 Designated Scenic Views

Table 12-9 below describes the theoretical visibility of the Proposed Development from the scenic views that are located within the LVIA study area boundary, as illustrated on the ZTV map in Figure 12-9 above.

Table 12-9 Theoretical visibility from scenic routes as designated in Westmeath County Council within LVIA study area

Destination	Description	Theoretical Visibility
Westmeath County Council		
0 to 5 km – There are no scenic views within 5 km of the site.		
5 to 10 km		
36	Panoramic view of countryside to north-west and north and excellent view over Lough Derravaragh from Local Road L-8521 between Leney and Multyfarnham.	Area where view indicated on Map 4 in Development Plan is not within ZTV. Further west along road, no open clear views to the North. Potential for intermittent views due to screening. The comparative ZTV indicates there is no additional visibility caused by the proposed 15 turbine layout compared to the permitted 13 turbine layout.
37	Views of Lower Inny at its source. Lough Derravaragh and hills in background from point on the L-1825 Local Road,	Views to east and west, not in direction of the Proposed Development site.
39	View of countryside around Castlepollard from Local Road L-5742 at Grangestown	View to northeast towards Castlepollard and not in direction of the Proposed Development site.
40	Scenic drive through State Forest off the R-394 Regional Road south of Castlepollard.	View within ZTV but no visibility due to screening.
41	Sporadic views of Lough Lene from Regional Road R-395 and Local Road L-5741.	View in northeast towards Lough Lene opposite direction to the Proposed Development site.
46	Views of historic Fore Village with monasteries, churches etc.	View not within ZTV.

Destination	Description	Theoretical Visibility
47	View northwards over Lough Glore and surrounding landscape from Regional Road R-195 near Mooretown Crossroads.	View within ZTV see Photomontage 10.
48	View over Castlepollard towards Rathowen, glimpses can be seen of the north-west end of Lough Derravaragh on the R-195 Regional Road.	View to west and southwest, not in direction of the development site.
50	View from the R-394 Regional Road between Castlepollard and Finea of "Hill of Mael" and "Mullaghmeen"	View towards Hill of Mael and Mullagheen and in opposite direction of the development site.
51	Sporadic views (both sides of roadway) of "Hill of Mael" to the west and "Mullaghmeen" to the north-east from Local Road L-1759 which runs through the intervening valley.	View partially within ZTV, see Photomontage 8.
52	Views of Lough Sheelin from points near Mullaghmeen on Local Road L-1771.	Views of Lough Sheelin, in the opposite direction to the development site.
53	Views of Lough Sheelin from Local Road L-1771 at Ballynascarry.	Views of Lough Sheelin, in the opposite direction to the development site.
54	View of Lough Sheelin from Regional Road R-394 north of Williamstown on Westmeath shoreline.	Views of Lough Sheelin, in the opposite direction to the development site.
55	Views of Lough Sheelin from Local Roads L-1770 and 1771 between Finea and Clare Island.	Views of Lough Sheelin, in the opposite direction to the development site.

Destination	Description	Theoretical Visibility
10 to 20 km		
49	Panoramic view of countryside from top of hill on Regional Road R-395 at Coole	View within ZTV see Photomontage 1
45	Views of Ben Loughs from Local Road L-5635.	Area where view is marked on map in the CDP is not within ZTV. Actual views are further north. Potential visibility from a short section of road.
44	View of Lough Bane from Local Road L-1633, including views from the cul-de-sac off the L-1633.	View not within ZTV.
43	Views of Lough Lene from the L-1731 between Collinstown and Cummerstown.	View within ZTV, see Photomontage 12.
42	View of Lough Lene and neighbouring landscape from Regional Road R-395 between Collinstown and Drumcree	View not within ZTV.
38	View of Glen Lough from Local Road L-5922.	View within ZTV but screening prevents views to the Proposed Development site.
35	Panoramic view of countryside looking north-west from point on Route N4 Local road near Bunbrosna	Views to northwest in direction of Proposed Development but view not within ZTV.
34	Views to west and south towards Lough Owel and Route N4 local Road L-5818 at Kilpatrick.	View in opposite direction to the Proposed Development site (and only from L-5818).

Destination	Description	Theoretical Visibility
33	Views of north-west end of Derravaragh and neighbouring countryside between Ballynafid and Multyfarmham on the Local Road L-1819	Potential visibility from some parts of the road but no clear scenic view of lake was discerned on this visit, therefore intended scenic view was not identified.
32	Views of Lough Derravaragh and hills at south-west end as seen from R394 between Crookedwood and Gartlandstown	View in the direction of the Proposed Development site but not within ZTV.
31	Views of Knockeyon and surrounding countryside form Local Road L-1618.	Views to Knockeyon. Short section around view is within ZTV, however screening exists by means of buildings and trees adjacent to GAA pitch.
30	Scenic drive with incidental views on Local Road -1015 at Lee's Cross – Crazy Corner southwards to Knockdron	View in opposite direction to Proposed Development site and not within ZTV.
29	Scenic drive with incidental views over Knockdrin Estate	Views in opposite direction to Proposed Development site and not within ZTV.
28	Views of Lough Owel from Route N4 between Portnashangan and Tullaghan	View to the southwest, in opposite direction to the Proposed Development site.
27	Panoramic views of Lough Iron and surrounding countryside from Local Road L-1804 at Balrath.	Views are partially within ZTV but are towards Lough Iron and the northwest, and Views in the direction of the site are screened, from parts of road. however most open view is from Frewin Hill - see Photomontage 14.
26	Panoramic view from Hill of Laragh on Local Road L-5905	Map indicates main views to northwest and southeast in contrast to the description, this view is located 18 km from the Proposed Development, if seen the views will be at a significant distance.
25	View from local road L-5803 at Ballard eastwards over Lough Owel	View looks in the opposite direction to the Proposed Development site and indicated south on the Natural Heritage (Map Ref. 01_WH_04) map in the WCPD.

Table 12-10 Theoretical visibility from scenic routes as designated in Meath County Council within LVIA study area

Destination	Description	Theoretical Visibility
Meath County Council		
0 – 5 km – There are no scenic routes within 5 km of the site		
5 to 10 km		
1	Country road between Ross and Moneybeg (Local Significance). View looking north west across mixed landscape of woodland and trees of low enclosure.	View to northwest and not in direction of the development site.
10 to 20 km		
2	County road at Bellewstown (Local significance)	Views to south of Loughcrew skyline. Foreground contains extensive housing. View therefore not in the direction of the proposed Wind Farm site.
3	County road from R154 at Boolies (Regional significance)	Extensive views south west across unusually open and unenclosed landscape towards skyline of cultural and scenic significance. Foreground and middleground obstructed by housing and infrastructure. Photomontage 11 is representative of views from this part of the study area.
4	R154 between Patrickstown and Oldcastle I (Regional Significance)	Extensive view northwards across extensive settled landscape with settlements, housing, infrastructure and agriculture all visible. Infrastructure and housing visible in near and middle foreground. Few mature trees in foreground or middle distance. Extensive view southwards across extensive settled landscape with low densities of housing Photomontage 11 is representative of views from this part of the study area.
5	R154 between Patrickstown and Oldcastle II (Regional Significance)	Extensive view south across extensive landscape with relatively low levels of enclosure and relatively low levels of visible development. Photomontage 11 is representative of views from this part of the study area.
6	Sliabh na Calliagh (National Significance)	Panoramic views in all directions including intervisibility between the 3 peaks. Site of high cultural and scenic significance characterized by absent or very low levels of enclosure. Photomontage 11 is located close to this designation.

Destination	Description	Theoretical Visibility
7	County road between Rahaghy and Patrickstown (Regional significance)	Extensive view across important scenic and cultural landscape Photomontage 11 is representative of views from this part of the study area.
8	County road between Skerry Cross Roads and Ballinlough (Regional significance)	Framed View from local road across Lough Bane ZTV indicates no theoretical visibility from this designation.
94	Moylagh Castle from local road to east of R195 (Local significance)	View of Moylagh Castle and Motte. ZTV indicates no theoretical visibility from this designation.

12.6.4.3 Settlements

Table 12-11 below describes the theoretical visibility of the Proposed Development from the settlement centres that are located within the LVIA study area boundary, as illustrated Figure 12-8 and Figure 12-9.

Table 12-11 Theoretical visibility from settlement centres within LVIA study area

Settlement	Settlement Hierarchy	Theoretical Visibility
Up to 5 km		
Coole	Small Settlement/Rural Centre	Theoretical Visibility of 4-7 turbines. Photomontage 1 is representative of views from Coole Village.
Castletown	Small Settlement/Rural Centre	Potential visibility from some parts of the road but no clear view due to vegetation screening views. Photomontage 21 & 7 are representative of views from this section of the study area.
Finnea	Small Settlement/Rural Centre	Theoretical Visibility of 15 turbines. Photomontage 6 is representative of views from Finnea. The photomontage shows only two turbines clearly visible; the remaining turbines being partly hidden by vegetation.
Abbeylara	Large Village	Theoretical Visibility of 15 turbines. Photomontage 4 is representative of views from Abbeylara. The photomontage shows nine turbines visible in view, seven of these being clearly visible while two are partially visible.
5 to 10 km		
Granard	Key Service Town	Theoretical Visibility of 15 turbines. Photomontage 18 is representative of views from Granard. The photomontage shows the proposed Coole turbines

Settlement	Settlement Hierarchy	Theoretical Visibility
		appear in a group to the southwest, They are visible, however they are shown at some distance.
Castlepollard	Key Service Town	Theoretical Visibility of 4-7 turbines. Photomontage 15 is representative of views from Granard. The photomontage shows the proposed Coole turbines are largely screened by mature trees. Nine of the 15 turbines are visible as blade tips behind the trees.
10 to 15 km		
Edgeworthstown	Service Town	No visibility indicated in ZTV. Patches of Theoretical Visibility of 4-7 turbines on the outskirts of the town.
Rathowen	Rural Centre	No visibility indicated in ZTV. Patches of Theoretical Visibility of 4-7 turbines on the outskirts of the centre.
Ballinalack	Rural Centre	Theoretical Visibility of 15 turbines.Visibility was ruled out due to extensive vegetative screening, screening views towards the Proposed Development.
Multyfarnham	Rural Centre	Theoretical Visibility of 15 turbines. Photomontage 13 is representative of views from Multyfarnham. The photomontage shows the proposed Coole turbines appearing in a tight cluster to the centre of the image, behind the trees.
Collinstown	Rural Centre	Potential visibility from some parts of the road but no clear view due to vegetation screening views. Views that have visibility, will view the Proposed Development at a distance. Photomontage 12 is representative of views from this section of the study area.
15 to 20 km		
Ballynacarrigy	Small Village	Potential visibility from some parts of the road but no clear view due to buildings and vegetation screening
Ballyjamesduff	Small Village	No theoretical visibility indicated in the village centre, on the fringe of the village there is an indication of visibility. Photomontage 13 is representative of views from Ballyjamesduff. The photomontage shows the proposed Coole turbines, all of which are visible in this view, as a cluster of limited extent.
Aughnacliff	Rural Centre	No visibility indicated in ZTV. Patches of Theoretical Visibility of 4-7 turbines on the outskirts of the town.

Settlement	Settlement Hierarchy	Theoretical Visibility
Ballinalee	Serviced Settlement	No visibility indicated in ZTV.
Legan	Serviced Settlement	Potential visibility from some parts of the road but no clear view due to buildings and vegetation screening views. Views that have visibility, will view the Proposed Development at a distance.

12.6.4.4 Recreational and Tourist Destinations

Table 12-12 below describes the theoretical visibility of the Proposed Development from the recreational and tourist destinations that are located within the LVIA study area boundary, as illustrated on the ZTV map in Figure 12-9 above.

Table 12-12 Recreational and tourist destinations within LVIA study area (not otherwise captured by reference to settlement centres or scenic routes)

Destination	Description	Theoretical Visibility
0 to 5 km – There are no significant recreational or tourism destinations within 5 km of the site		
5 to 10 km		
Tullynally Castle	Tullynally castle and grounds are identified in the Development Plan as an important feature of the area as well as a tourist attraction, the castle and significant grounds being the seat of the Packenham family, close to the northern shore of Lough Derravaragh.	No visibility indicated in ZTV. Patches of Theoretical Visibility of 15 turbines on the outer boundary of the estate.
Mullaghmeen Forest	The Mullaghmeen beech woods and amenity area lie on the edge of the 5 kilometres radius from the Proposed Development site. These historic beech woods are open to the public and are a Coillte recreational area.	Theoretical Visibility indicated. However, screening by the trees of the forest limit the available views significantly. Photomontage 21 is a representative view of this amenity.
15 to 20 km		
Kinturk Demesne	Kinturk House is a listed building located within the Kinturk Demesne and has architectural significance within County Westmeath. Kinturk House is now in the ownership of the HSE, while it is understood Turbotstown House is in private ownership, and does not appear to be open to	Theoretical Visibility indicated. However, screening by the vegetation which surrounds this estate

Destination	Description	Theoretical Visibility
	the public (although this is stated in the Development Plan).	limits the available views significantly.

12.6.4.5 Recreational Routes

Table 12-13 below describes the theoretical visibility of the Proposed Development from the tourist and recreational routes that are located within the LVIA study area boundary, as illustrated on the ZTV map in Figure 12-9.

Table 12-13 Recreational routes within LVIA study area

Route Name	Description	Theoretical Visibility
5 to 10 km		
Proposed Extension of the Westmeath Way	The Westmeath Way, a National Waymarked Trail, lies outside the 20 km radius of the site, and runs south of Mullingar. However, the Development Plan notes that there is a 'Proposed northern section of the Westmeath Way' This shows the proposed route to commence north of Mullingar and run east of Lough Derravaragh and continue along the River Inny to the North where it joins the local road which traverses the subject site, before continuing northeast through the existing plantation and continuing along local roads.	Theoretical Visibility of 15 turbines indicated along the proposed route. Photomontage 7, 15 and 13 are representative of views from the Westmeath Way.
Mullaghmeen Forest	Waymarked Recreational Trail	Theoretical Visibility indicated. However, screening by the trees of the forest limit the available views significantly. Photomontage 21 is a representative view of this amenity. Further discussed in section 12.8.3.1.

12.6.5 Route Screening Analysis Results – Roads within 5 Kilometres

Figure 12-10 (see below) outlines the Route Screening within a five-kilometre radius of the Proposed Development site. This map indicates that many of the roads within 5 kilometres of the site have intermittent/partial screening, and therefore these roads which fall within the ZTV will have more screening and therefore intermittent views, rather than the full visibility that the ZTV suggests. By comparison, relatively few areas have extensive stretches of little or no screening, and the areas with stretches of dense screening are also less.

Map Legend

- Turbines of the Proposed Development
- LVIA Study Area
- County Boundary
- Photomontage Viewpoint Locations
  Volume 2 Photomontage Booklet

Route Screening Classification

- Clear and Open Views
- Intermittent / Partial Screening
- Dense Screening

Drawing No.

Figure 12-10

Drawing Title

Route Screening Analysis

Project Title

Coole Wind Farm, Co. Westmeath

Scale	Project No.	Date	Drawn By	Checked By
1:50000	200445	10.03.2021	JW	EC

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The presence of roadside screening is particularly important in contexts such as the Proposed Development site, where the site is at a relatively low elevation, and lower than many of the surrounding areas from which it is viewed. When viewed from areas of similar elevation, screening plays an important role in reducing visual effects as turbines bases and towers can be screened, or partly screened.

Few roads occur within 1 kilometre of the Proposed Development, with the *'intermittent screening'* category occurring most frequently within 1 kilometre of the proposed turbines. Some areas of dense screening are seen to the west of the site along the R396.

Within 1-3 kilometres of the Wind Farm Site, intermittent/partial screening remains the dominant category, interspersed with areas of little/no screening. Between 1 and 3 kilometres from the Wind Farm Site, the route screening includes the R395 which runs through Coole village, which shows mainly intermittent screening (green) but with some open areas which have little or no screening. The intermittent screening effects are illustrated by Photomontages 1, 16 and 17 which illustrate clearly the effect of screening by vegetation and buildings in Coole village.

Between 3 and 5 kilometres, the pattern of screening remains similar, with the dominant category being intermittent/partial screening, followed by areas marked as having little/no vegetation. It is worth noting that the road running northwest from Rincoolagh is a scenic route (full views) in Co. Longford, and this route is almost all categorised as intermittent/partial screening. In many cases, therefore, the actual visibility is less than shown in the ZTV map in these lowland areas.

Photomontages and wireframes in the Photomontage Booklet illustrate the effects of screening, and examples include Photomontage 2, where ten of the 15 turbines are screened by vegetation. Photomontage 4, where six turbines appear almost completely screened by vegetation, and all but one are partially screened to some extent where parts of the turbine towers and/or blades are partially visible. Photomontages 2, 5, 6, 8, 13, 19 and 20 also illustrate the effects of screening in reducing visibility at close range, including reducing the extent of the turbines visible.

Photomontage 3 taken from the R395 near Lismacaffrey which Figure 12-10 shows a considerable length of road which has little or no screening – though this is at some distance from the Proposed Development. However, this photomontage demonstrates that there is still screening from field boundaries between the viewer and the intervening vegetation partly screening six of the proposed turbines.

12.7 Cumulative Baseline

In terms of cumulative landscape and visual effects, only other wind energy projects have been considered, as only these would be described as very tall vertical elements in the landscape and therefore give rise to significant cumulative effects. A desk based planning search was conducted to identify other wind energy developments within 20 km of the Proposed Development. The online planning portals of relevant planning authorities in the LVIA Study Area (Westmeath, Longford, Meath and Cavan County Councils; and An Bord Pleanála) were utilised to search for past planning applications. The planning search was verified on the ground during site visits conducted in 2020 and 2021.

Only one existing turbine is located in the LVIA Study Area (20 km). As illustrated in Figure 12-11 below, the singular Ballyjamesduff turbine is located 16.7 km north-east of the Proposed Development, and 1.3 km south from the urban centre of Ballyjamesduff town.

The singular Ballyjamesduff turbine has a ground to blade-tip height of 152 metres and a hub height of 100 metres. The turbine is included in the Volume 2 photomontage booklet and is assessed cumulatively with the Proposed Development in Appendix 12-3. As it was not visible in any of the 90º photomontages (only just discernible in the 120º Key image from Viewpoint 18), no cumulative visual effects were recorded at any of the photomontage viewpoints. A more detailed summary of cumulative visual effects is included in Section 12.9.3 – *Operational Phase Effects.*

It is noted that several other wind farms beyond 20 km but within 25 km of the Proposed Development are included in Chapter 2 of this EIAR. They are scoped out of this LVIA due to the unlikelihood that turbines beyond 20 km will give rise to any significant cumulative landscape and visual effects. Although some of these turbines are theoretically visible within elevated, long distance views, they are not visible in the same viewshed as the Proposed Development, nor are they discernible in any of the photomontages.

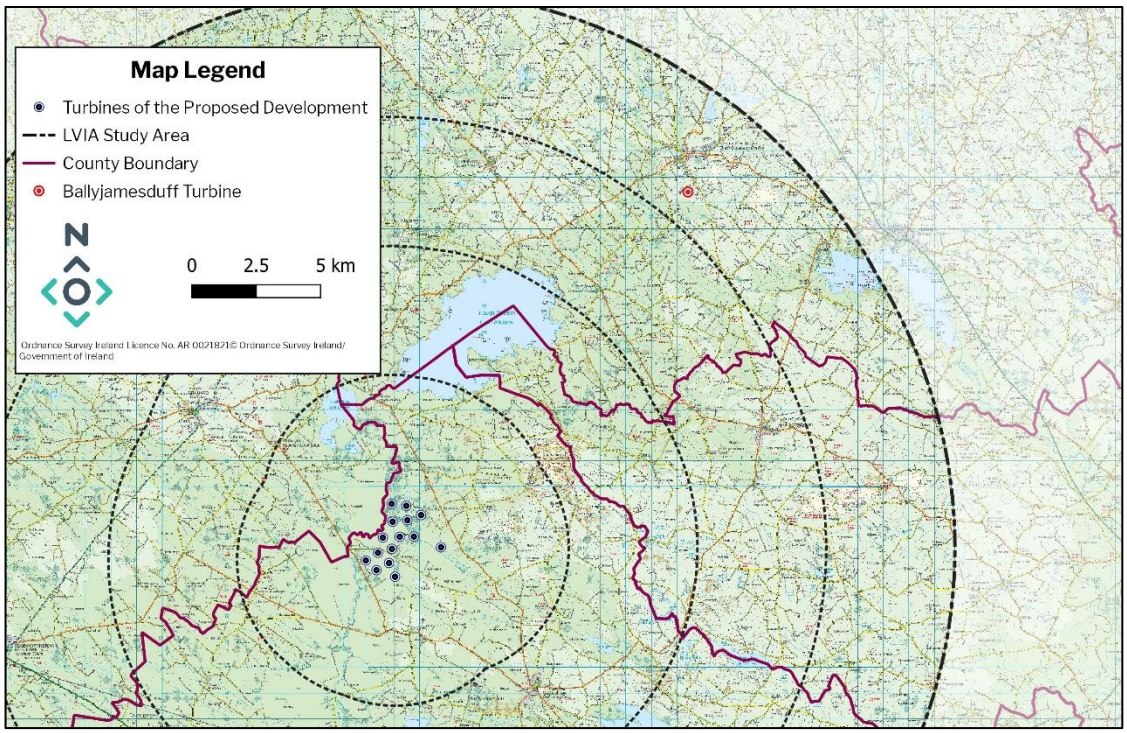

Figure 12-11 Location of the Proposed Development and the singular Ballyjamesduff turbine.

12.8 Summary of Likely and Significant Effects

12.8.1 Viewpoints Assessment

An assessment of the visual effects of the proposed turbines was undertaken from the 22 viewpoint locations identified in Section 12.6.3 above using the assessment methodology described in Appendix 12-1 (an assessment of photomontage Viewpoint 22 (Fore Abbey) is included in Chapter 13 - *Cultural Heritage* as it forms part of the archaeological assessment). The locations of these viewpoints are shown previously in Figure 12-7. The individual assessments from the 22 viewpoints are presented in Appendix 12-3 and summarised in Table 12-14 below. Appendix 12-3 and Table 12-14 should be read in conjunction with the photomontage booklet forming Volume 2 of the EIAR.

The visual effect of the proposed wind farm was assessed from each viewpoint in terms of the sensitivity of the visual receptors, along with the magnitude of change, as recommended in the GLVIA (2013) guidelines. This, in conjunction with a detailed review of the photomontages themselves and the ZTV maps, informed the visual effects assessment.

Visualisations such as photomontages are visual aids that can represent the likely effect of a development and are used to inform the reader's understanding of how that development will appear in the landscape. In terms of the predicted visual quality of the proposed turbines however, i.e. whether a visual effect is deemed to be positive, negative or neutral, this involves a degree of subjectivity. What appears to be a positive effect to one viewer could be deemed to be a negative effect by another viewer, and therefore, no assessment of whether an effect is positive or negative is provided. The predicted visual effect of all the viewpoints below are Long Term and Direct effects.

The assessment of visual effects in Table 12-14 determined the residual significance of the visual effects to range from 'imperceptible' to 'moderate', with the number at findings at each level of significance.

Table 12-14 Viewpoint Summary

Significance of Residual Visual Effect	Description	No. of Viewpoints
Profound	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment	0
Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment	0
Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment	0
Moderate	An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends	4
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities	11

Significance of Residual Visual Effect	Description	No. of Viewpoints
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.	2
Imperceptible	An effect capable of measurement but without significant consequences	5

The significance of the residual visual effect was not considered to be "Profound", "Very Significant" or "Significant" at any of the 22 viewpoint locations. All other viewpoints were assessed as resulting in Moderate (4), Slight (11), Not Significant (2) or Imperceptible (5) residual visual effects.

The viewpoint assessment results will be discussed further in the following sections in the assessment of other landscape features.

12.8.2 Landscape Character Assessment

An assessment of the effects on landscape character was undertaken for the nine LCAs within the study area that were identified as having notable visibility in the Landscape Receptor Preliminary Assessment above in Section 12.5.6.1 and listed in Table 12-6. The individual assessments for each LCA are summarised in Table 12-15 below and are included in detail in Appendix 12-2 - *Landscape Character Assessment Tables*. The assessment criteria and grading scales which aided the assessment of landscape effects are detailed in Section 1.5.2 of the methodology appendix – *Appendix 12-1*.

Table 12-15 Landscape Character Area Assessment Summary

Landscape Character Area / County Cork Landscape Character Type	LCT Sensitivity to Wind Farm Development	Magnitude of Change	Significance of Landscape Character Effect (EPA, 2017)
WH LCA 2 Inny River Lowlands	Low	Moderate	Slight
WH LCA 4 – Central Hills and Lakes	Moderate	Slight	Slight
WH LCA 1 – Northern Hills and Lakes	Moderate	Slight	Slight
MH LCA 18 – Lough Sheeling Uplands	High	Negligible	Not Significant
MH LCA 19 – Loughcrew and Slieve na Calliagh Hills	High	Negligible	Not Significant
LD LCU 5 – Inny Basin	Low	Moderate	Slight

Landscape Character Area / County Cork Landscape Character Type	LCT Sensitivity to Wind Farm Development	Magnitude of Change	Significance of Landscape Character Effect (EPA, 2017)
LD LCU 1 - Northern Drumlin Lakeland	Low	Moderate	Slight
LD LCU 2 – Northern Upland	Moderate	Slight	Slight
LD LCU 4 – Central Corridor	Low	Slight	Not Significant

As shown in Table 12-15, the Proposed Development will not cause any significant effects on the character of LCAs within the LVIA Study Area for landscape character.

Direct effects on landscape character will only occur in Westmeath LCA 2 - Inny River Lowlands where the proposed turbines are located. The footprint of turbines and associated infrastructure of the Proposed Development will only materially alter a very small portion (approximately 26 hectares) of the landscape in this LCA (0.13%). Therefore, direct landscape effects are very localised to the site in which the turbines are located. Due to the flat nature and abundance of vegetation in the wider landscape of this LCA, a disproportionate screening effect will occur and reduce visibility from vast areas within this large LCA. Therefore, effects on its landscape character as a whole will be limited. The highly localised landscape effects occurring on the site as a result of the proposed turbines are deemed to be 'Moderate' however, a 'Slight' effect is deemed appropriate for the impacts on the landscape character of the LCA as a whole.

'Slight' effects on landscape character were recorded for the following LCAs: WH LCA 4 – Central Hills and Lakes; WH LCA 1 – Northern Hills and Lakes; LD LCU 5 – Inny Basin; LD LCU 1 - Northern Drumlin Lakeland; LD LCU 2 – Northern Upland. It is worth noting that the proposed turbines will not materially alter the landscape of these LCAs. The 'Slight' effects on landscape character are indirect, and are only likely to arise in small localised areas of these LCAs in close proximity to the site where open views can be found.

Very limited visibility of the Proposed Development occurs within the two LCAs of high sensitivity located in County Meath (MH LCA 18 – Lough Sheeling Uplands and MH LCA 19 – Loughcrew and Slieve na Calliagh Hills). Likely effects on landscape character was deemed to be 'Not Significant' as indirect landscape effects on landscape character are mitigated by lack of visibility within these large area and distance between the landscapes and the proposed turbines.

12.9 Likely and Significant Effects

12.9.1 Introduction

This sub-section assesses the likely and significant effects under a variety of headings. As per the EPA guidance, effects (or impacts as they are referred to in the guidance) are classified with reference to Quality, Duration and Type in accordance with the EPA classification terminology outlined in Chapter 1 of this EIAR.

With reference to visual effects of wind turbines, the quality of the effect is somewhat subjective as acknowledged by the DoEHLG (2006) Guidance – and the quality of the effect will not necessarily appear the same to different viewers. However, non-turbine effects are assessed in terms of their quality, whether positive, negative or neutral.

The likely significant effects are discussed below in terms of Significance, Duration, and where necessary, are distinguished by Type. Where mitigation measures are proposed, a residual effect is then included.

By their nature, wind farm developments and associated works generally give rise to direct rather than indirect effects, and therefore all effects are direct unless otherwise stated.

As recognised by the DoEHLG's 2019 Guidelines, while many issues in relation to wind energy development can be assessed in quantitative terms, aesthetic or visual considerations are more subjective and qualitative. Also recognised by the Guidelines for Landscape and Visual Impact Assessment (GLVIA) (The Landscape Institute/Institute of Environmental Management and Assessment, UK, 2013) is the fact that determining the significance of effects is an evidence-based process combined with professional judgement. The basis for any such judgement is clearly set out in the below or relevant appendices in a transparent and understandable format, so that the underlying assumptions and reasoning can be understood by all readers.

This assessment of landscape and visual effects considers all elements of the proposed wind farm development but is concentrated on the proposed wind turbines due to their scale and potential visibility being significantly greater than any other element of the Proposed Development.

The visual effects of the turbines will be evident during the operational phase rather than the construction phase and these are described fully in Section 12.8.1.1.

12.9.2 Construction Phase Effects

12.9.2.1 Visual Effects

It is estimated that the construction phase of the Proposed Development will last between approximately 12 to 18 months. This stage of the development will involve the movement of construction and turbine transport vehicles into and out of the site, to allow the construction of the turbines and associated elements. Approximately 14.35 hectares of coniferous forestry will be cleared for turbine bases, access roads, and any other wind farm-related uses, as shown in Figure 4-17 (This will have to be replaced by replanting at an alternative location, which has been assessed as part of the proposed project; see Replanting Assessment in Appendix 4-3). This felling will have a localised visual impact, and felling is part of existing forestry operations.

Any peat extraction works are considered Temporary, to a Short Term Slight Negative effect in terms of visual effects.

12.9.2.1.1 Turbines

The visual effects of the turbines will be evident during the operational phase rather than the construction phase and these are described fully in Section 12.9.3.1.1.

12.9.2.1.2 Borrow Pit

The proposed borrow pit is located approximately 700 metres east of the nearest proposed turbine location, on agricultural land. This consists of agricultural fields with hedgerows and treelines. The borrow pit will be accessed by a new road which will be located close to the field boundaries and will minimise visual effects. Extraction will occur, removing the topsoil and overburden, and materials will be transported to the site. This will result in a Short term, Slight Negative visual effect.

Mitigation: Following the completion of the construction phase, the borrow pit will be reinstated as described in Operational Phase Effects.

12.9.2.1.3 Electricity Substation and Grid Connection

The proposed substation is located within the Wind Farm Site, near to the site entrance and R396 Regional Road. The substation is located within an area of forestry, which will visually screen it from the surrounding area and the impacts are included in the Operational phase effects.

The proposed wind farm will be connected to the national grid via an underground cable running from the substation to the existing 110 kV substation at Mullingar. All cabling between the proposed wind farm and the connection node to the grid will be laid underground and will follow the route of the existing public road corridor. During the construction phase, while the substation, being located within forestry, will give rise to Temporary to Short term Imperceptible negative visual effects, laying of the underground cable in the public road will result in Temporary to Short term, Imperceptible Negative visual effects.

12.9.2.1.4 Site roads, Temporary Compounds and other features

Approximately 11.14 kilometres of new roadway are proposed in total. The site access roads have made use of any existing access where possible. The construction of these roads will involve transportation of material from the borrow pit to the site. The visual impact is predicted to be Temporary to Short term imperceptible negative visual impact.

Temporary Construction Compound

One main temporary construction compound will be used for the temporary storage of all construction materials and turbines. The proposed construction compound is located close to an existing site entrance off the R396 Regional Road, which will be used as the main site entrance for the proposed wind farm. The use of a single construction compound as opposed to several smaller compounds interspersed throughout the site will result in less disturbance to the site and a reduced visual impact arising from the development. The compound is also located in an area that will be screened from the R396 by roadside trees and vegetation, and the compound will be removed following the construction phase. The predicted impact is therefore Temporary to Short term, Imperceptible negative visual effect.

Junction Accommodation Works and Road Upgrades

There are relatively minor works proposed at eleven junctions on the proposed turbine delivery route. A comprehensive description of all junction accommodation works and road upgrades are detailed in Section 4.3.17 of Chapter 4. A summary of these works are listed below:

- hardsurfacing at the N4 in the vicinity of its junction with the L1927 Local road in the townland of Joanstown;
- Temporary removal of the existing hedgerow and hardsurfacing on lands to the South East of the railway line level crossing on the L1927;
- hardsurfacing and widening of the L1927 and L5828 junction in the townland of Boherquill;
- clearing of existing verge and vegetation and hardsurfacing at the gentle right turn from the L5828 onto the R395;
- hardsurfacing including clearance of vegetation and road verge to provide access and egress at proposed link road;
- hardsurfacing including clearance of vegetation and road verge at site access points off the R396, and at four points along the L5755.

Following construction of the Proposed Development, all original junction boundaries, grass verges and surrounding vegetation will be reinstated unless otherwise stated. The predicted visual impact for all of these works are short term and highly localised 'Slight' negative visual impacts.

The predicted impact of the hardsurfacing works or removal of woodland shrub described above will result in a permanent and highly localised 'Slight' negative visual impact.

12.9.2.2 Landscape Effects

It is estimated that the construction phase of the Proposed Development will last between approximately 12 to 18 months. This stage of the development will involve the movement of construction and turbine transport vehicles into and out of the site, to allow the construction of the turbines and associated elements. Approximately 16.36 hectares of coniferous forestry will be cleared for turbine bases, access roads, and any other wind farm-related uses. (A potential replanting area has been identified in the townland of Maheraboy, approximately 1.4 kilometres east of Ballaghdereen, Co. Roscommon. An area at this site measuring 16.53 hectares has been granted Forest Service Technical Approval for afforestation). This felling, and any other areas of vegetation removal along the link road and at junctions, will have a localised visual impact, and felling is part of existing forestry operations. Any Peat extraction works at the site is considered to be a Temporary, to Permanent Slight Negative effect in terms of landscape effects on the overall character of the site and immediate surrounds.

12.9.2.2.1 *Turbines*

The landscape effects of the turbines will be evident during the operational phase rather than the construction phase and these are described fully in Section 12.9.3.

12.9.2.2.2 *Borrow Pit*

One borrow pit is to be used for construction material, and it is located approximately 0.7 kilometres to the east of turbine T14, along the local road L5828, in agricultural grassland. Extraction at the borrow pit will result in the removal of topsoil, vegetation and overburden, and the construction of an access road. Removal of hedgerows is minimised.

Mitigation: Following the completion of the construction phase, the borrow pit will be reinstated as outlined in Operational Phase Effects.

12.9.2.2.3 *Electricity Substation and Grid Connection*

During the construction phase, the substation construction will give rise to Temporary to Short term Imperceptible negative landscape effects. Laying of the underground cable in the public road will result in Temporary to Short term, Imperceptible Negative landscape effects.

12.9.2.2.4 *Site roads, Temporary Compounds and Other Features*

The site access roads have made use of any existing access where possible, and in other cases are proposed on areas of cutover peat. The predicted landscape effect is Long Term, Imperceptible to Slight landscape effect.

Temporary Construction Compound

The use of a single temporary construction compound as opposed to several smaller compounds interspersed throughout the site will result in less disturbance to the site and a reduced visual impact arising from the development. The compound is also located in an area that will be screened from the R396 by roadside trees and vegetation, and the compound will be removed following the construction phase. The predicted impact is therefore Temporary to Short term, Imperceptible negative visual effect.

Junction Accommodation Works and Road Upgrades

A summary of these works were mentioned previously in section 12.9.2.1.4. Following construction of the Proposed Development, all original junction boundaries, grass verges and surrounding vegetation will be reinstated. The predicted impact upon the landscape are short-term and highly localised 'Slight' negative landscape effects.

The predicted impact of the hardsurfacing works or removal of woodland shrub described above will result in a permanent and highly localised 'Slight' negative landscape effect.

12.9.3 Operational Phase Effects

12.9.3.1 Visual Effects

12.9.3.1.1 *Turbines*

The visual effects of the turbines will be evident during the operational phase.

The ZTV Map (Figure 12-5), Route Screening Analysis Map (Figure 12-10) and the 22 no. Photomontages in the Photomontage Booklet (Volume 2), along with the baseline information, all contribute to the assessment of the visual effects of the proposed turbines.

While the ZTV illustrates theoretical visibility, the Route Screening Map and the photomontages combine to give a more accurate image of actual visibility which is less than illustrated on the ZTV map. The lowland nature of the Proposed Development site and the screening present on the roads in the vicinity of the site reduce visibility when compared with the ZTV, which is a bare-ground scenario and does not take into consideration screening by vegetation and buildings.

There are areas within the 20-kilometre radius which are likely to have clear views of the proposed turbines, and there are also, in reality, areas where visibility is restricted due to vegetation and screening, as illustrated by some photomontages and by the Route Screening Maps. Several viewpoints which indicated full theoretical visibility of the turbines (on the ZTV Map) were visited but the resulting photomontages showed no visibility of the proposed turbines due to screening, several of which are protected/designated views. Consequently, these were not included in the Volume 2 Photomontage Booklet.

Potential visual effects of the views shown in the photomontages range from No impact, where the turbines are not visible, and from Imperceptible to Moderate where they are visible. The photomontages illustrate the views from a wide variety of locations. Visibility ranges from full visibility of all 15 turbines, as seen in Photomontage 7, 9 and 14, to views where only blade tips are visible, as seen in Photomontages 1,8,11, 12, 15, 17. Visibility and visual effects arising from differing geographical perspectives and specific visual receptors identified in the visual baseline exercise are discussed in more detail below.

Views Within 5 kilometres of the Wind Farm Site

Within 5 kilometres of the Wind Farm Site, the ZTV shows full visibility over much of this area. The A0 ZTV map (Appendix 12-4) shows the ZTV overlaid with the Photomontage locations. Photomontage viewpoints 2, 3, 4, 6, 7, 8 have theoretical visibility of 12-15 turbines on the ZTV. However, this is not always the case, largely on account of the considerable screening that is present alongside roads in the vicinity of the site. Viewpoint 6 is also shown to have theoretical visibility of 12-15 turbines also, but the photomontage shows that actual visibility is much less, with nine turbines visible and only two turbines clearly visible. Theoretical visibility and visibility as depicted in the photomontages is discussed further below. Viewpoints 4 and 19 represent views from Co. Longford within 5 km of the proposed turbines.

Settlement of Coole Village

Visibility was also assessed from various locations within Coole village, the closest settlement to the Proposed Development. The ZTV illustrates visibility of turbines from Coole village, including Protected View 49. While Protected View 49 is described in the Development Plan as both to the north and south (with the northerly view shown in Photomontage 1 which is in the direction of the Proposed Development), the intended view however is clearly to the south and west, overlooking the peatlands in the opposite direction.

The A0 LVIA Baseline map (Appendix 12-4) shows that while Photomontage 1 has theoretical visibility of 4-6 turbines, in reality, the photomontage shows all turbines are screened by vegetation, local topography and buildings. The ZTV map shows that Photomontage 16 from near the church in Coole village, has theoretical visibility of 12-15 turbines, but only 7 are visible in the photomontage. Of these, five turbine blades are clearly visible and four partly hidden and glimpsed behind trees, with the towers of all turbines screened by vegetation and buildings.

At another point in the centre of Coole village, Viewpoint 17 shows that a view taken from near the pedestrian crossing/Coole Community Hall, shows only one turbine blade tip is visible due to screening by buildings and vegetation. Visibility from the village therefore is intermittent, when compared with theoretical visibility shown in the LVIA Baseline A0 ZTV map (Appendix 12-4). Views 1, 2, 3, 4, 6, 7 represent views from Regional roads and from near settlements, while Views 8 represents a local road near a protected view.

Mullaghmeen Forest

The Mullaghmeen beech woods and amenity area lie on the edge of the 5 kilometres radius from the Wind Farm Site. These historic beech woods are open to the public and are a Coillte recreational area. The Planning Authority noted in a Pre-Planning Meeting held in January 2017 for the now permitted 13 turbine wind farm that there may be visibility from the edge of the hill at these woods. This area was visited as part of the LVIA for the Proposed Development with most of the walks noted as located within the woods and dense trees surrounding the paths, but with several viewing points identified on the Coillte Trail Map. The trails and viewing point on the westerly slopes of the forest was visited, and while there were some views to the landscape, there is still screening by the trees and if any visibility of the proposed turbines occurs, it would be difficult to make out with the intervening trees - even when the trees are without leaves, as shown below in Plate 12-9.

Plate 12-9 Image from western slopes of Mullaghmeen forest looking west.

A photomontage from the summit viewing point was also taken (Photomontage 21). Views from the summit cairn are described as panoramic, however most noteworthy views are to Lough Sheelin to the north as mentioned on the Coillte website (http://www.coillte.ie/site/mullaghmeen-forest/) with the Proposed Development located to the west and therefore is not visible when looking north to Lough Sheelin. The view from the summit is not a protected view. Photomontage 21 shows the view to the west from the summit cairn. The turbines are all visible but occupy a limited extent of the view and result in a moderate change in the view. They do not obstruct the panoramic view. Views to the north to Lough Sheelin are not affected. The visual impact is considered Moderate.

Demesnes

Turbotstown House and Demesne, which lies approximately 2.5 kilometres southeast of the closest turbine, is illustrated on the ZTV maps as in an area of theoretical visibility of between 11-13 turbines (see Figure 12-9 and the AO Map - *Appendix 12-4*). The Route Screening Map (Figure 12-10) indicates that the local road to the west of the demesne is categorised as intermittent/partial screening, so it is likely that visibility will be less than shown on the ZTV, which represents theoretical visibility in the absence of any screening.

Tullynally Castle Demesne, near Castlepollard, is an important demesne landscape in the area, and an important tourist attraction. The ZTV map indicates by coloured shading where visibility is theoretically possible. The ZTV map indicates that there will be very limited visibility from Tullynally castle (various colours indicating low volume of turbines theoretically visible), however that there is theoretical visibility along the entrance drive and in parts of the demesne which contain various levels of theoretical visibility. The castle and grounds are located approximately 5.2 km from the nearest proposed turbine and there appears to be significant screening by trees in the demesne grounds. It is possible that there may be some visibility from the entrance drive of the turbines through the trees. The turbines are however at a distance from the demesne and the effect would be imperceptible. A request to take images and develop photomontages from the grounds of the demesne was declined.

Visibility from Protected Views and High Amenity Areas

A number of protected views lie within five kilometres of the Wind Farm Site. Protected View 49 in Coole village has already been referred to above, with no visibility of the turbines at this location. Other protected views considered within 5 kilometres include View 51(Co. Westmeath), approximately 4.2 km to the northeast of the Wind Farm Site.

In some cases the descriptions of the protected views and their locations in the Westmeath County Development Plan 2014-2020 on the map do not match, and in some cases the view was not apparent and had to be assumed. In several cases, the Development Plan views are mapped as one location, whereas in reality, the text description relates to a much longer stretch of road as opposed to a single view. View 51, is marked with two arrows (one west and one northeast) however this is described in the Development Plan as -

"Sporadic views (both sides of roadway) of "Hill of Mael" to the west and "Mullaghmeen" to the north-east from Local Road L-1759 which runs through the intervening valley."

This location was visited several times. In this case, the mapped views in the Development Plan (and illustrated on Figure 12-1, Figure 12-8 and Figure 12-9) are at one particular location along the road, while the Plan's description above refers to a much longer section of road.

There is no theoretical visibility for much of the southern stretch of this road L-1759 (north of Ballymanus), and several views of Mullaghmeen and the Hill of Mael are evident from this section of road, and therefore there will be no effect on this section of the protected view associated with the proposed wind farm. Several photomontages (including Photomontage 8) were mid-way along this road, taken close to the mapped view, but the Hill of Mael is screened by the intervening hill at this location and this therefore does not appear to be the intended protected view.

To the north of the location of Photomontage 8, Plate 12-10 below shows the clearest view of the Hill of Mael along this section of road. However, intervening trees will prevent full visibility of the proposed turbines. Figure 12-12 below shows a wireframe image from the same location as the image in Plate 12-10 which allows a relatively narrow view looking southwest to the Hill of Mael. The wireframe in Figure 12-12 from this location indicates that the Coole turbines would appear as blade tips off to the side, to the right of the image, partly screened by intervening vegetation.

Plate 12-10 Image showing from most open view of Hill of Mael.

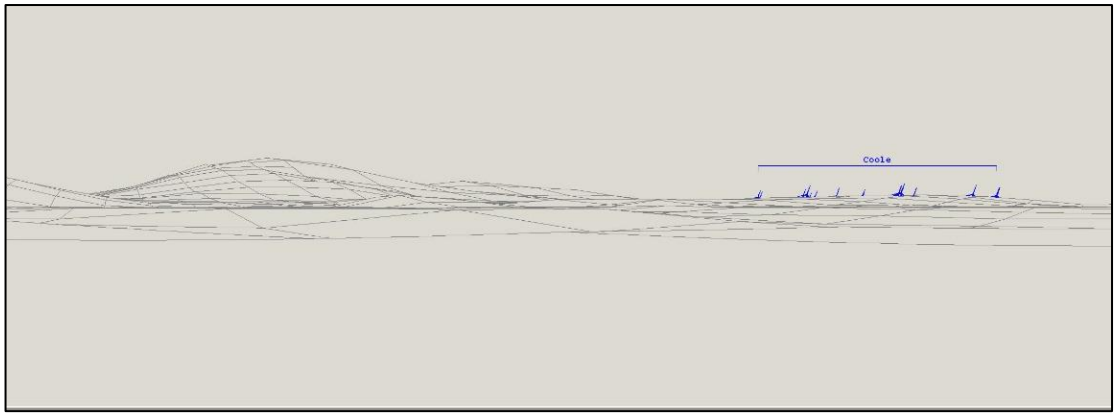

Figure 12-12 Wireframe graphic from the same location as Plate 12-10

As shown in the wireframe (Figure 12-12) from this location, north of Photomontage 8, the proposed Coole turbines are potentially partially visible, being partly screened by the topography, and will be seen at some distance from the Hill of Mael, however in no way obstructing the view.

In summary, from the road in which the Hill of Mael is seen, views of the Proposed Development will be intermittent and the turbines are mostly screened by the topography. If visible they will appear in the background and not in between the intended view and the viewer. Views to the northeast to Mullaghmeen will not be affected.

There are parts of two High Amenity Areas located within 5 kilometres of the Wind Farm Site. Photomontage 6 is taken from the Lough Sheelin High Amenity Area, however the views are concentrated northwards towards the lake while the Wind Farm Site is situated to the west, and will not affect view of the High Amenity Area. Photomontage 21 is taken from the summit cairn of Mullaghmeen Forest which is just on the boundary of the High Amenity Area. However, the view of the proposed turbines is looking west and away from the High Amenity Area.

The northern part of the Lough Derravaragh High Amenity Area is located just within the 5 kilometre radius of the Wind Farm Site, however much of this area is the lake itself. Views from the land around Lough Derravaragh are towards the lake and the Wind Farm Site is not visible within these views as it is located approximately 6 km north of the lake. Photomontage 13, though outside the Amenity Area and between 5-10 kilometres, illustrates a view from some distance as it looks over the High Amenity Area. This view from Photomontage 13 shows that the proposed turbines will not affect the Lough Derravaragh High Amenity Area.

Views from other visual receptors and locations within 5 km of the Proposed Development

Other views include Viewpoint 3 which represents the view from the village of Lismacaffrey, which shows that at relatively close proximity, the turbines, though seen against the backdrop of the hills and deciduous trees, are visible but do not dominate the view. Viewpoint 7 from the R394 is in very close proximity to the Wind Farm Site and the turbines are clearly seen at close range, set in flat peatland. This view does not show the turbines dominating any distinctive landscape features. Viewpoint 19 is taken at close proximity from the R396 road at the Inny River bridge, and this represents a view at close proximity in Co. Longford as well as the closest available viewpoint along the Inny River. This view shows that the turbines are largely hidden by the intervening trees, with only one nacelle visible. (This viewpoint was taken in response to a request by Westmeath County Council).

5-10 kilometres from the Wind Farm Site

Within 5-10 kilometres of the Wind Farm Site, theoretical visibility becomes more intermittent which is to be expected for a lowland Wind Farm Site. Due to the fact that the turbines are not situated on a ridge surrounded by lowlands, the effects of local small topographical changes in the landscape have a

more pronounced effect on the visibility of the turbines. Where clear views are obtained the turbines, while visible, are not dominant.

Photomontage 5 represents the view close to Finnea and from a Longford Broad Zone, and the Longford scenic route FS-15. This viewpoint illustrates a view where theoretical visibility is shown as 12-15 turbines but the viewpoint shows that some turbines are partially screened by vegetation. The turbines appear in this location, in a scenic landscape but the photomontage shows that the turbines, seen to the right of the image, do not obstruct the view to the lake and the higher ground. Viewpoint 10 represents the protected view 47 (Co. Westmeath) overlooking Lough Glore, and similarly, the photomontage shows that this is a scenic view, and the main element of this view is the lake and backdrop of hills. Though the turbines are visible within the landscape, the scenic elements of the view the lake and the hills, are unaffected.

Viewpoint 13 represents the view from the south, close to Multyfarnham, where all turbines are visible, yet seen at some distance and are partially screened by intervening vegetation.

Several other photomontages were captured in areas of full visibility as shown on the ZTV, only to show that in reality the many of the proposed turbines are partially screened.

Settlement of Castlepollard

Photomontage 15 shows a view on the outskirts of Castlepollard village, which illustrates that screening obscures the majority of the turbines. Though the ZTV map indicates visibility of 12-15 turbines, the photomontage shows that only 10 of the turbines are visible as blade tips, the remaining five being screened by the vegetation. Increased visibility may occur at times of leaf fall, but turbines will still be largely screened by the tree branches.

Protected View 40 (Co. Westmeath), south of Castlepollard as shown in Figure 12-1, Figure 12-8 and Figure 12-9, is described in the Westmeath County Development Plan as a view of the State Forest at Kinturk. Plate 12-11 (seen below) shows the view from this designated protected view, a wireframe coloured in blue is overlaid the image to indicate the location of turbines within the landscape. As shown in Plate 12-11, trees will screen views towards the site from this location, with the possibility of some blade tips only appearing above the treeline.

Plate 12-11 View from Kinturk Protected view with wireframes overlaid the image. Screening restricts views of the proposed turbines.

In the WCDP Westmeath Protected View 36 (shown on Figure 12-1, Figure 12-8 and Figure 12-9) is focussed to the north-west, in the direction of the proposed Wind Farm Site. This was not apparent in the location where the view is mapped, and the Westmeath County Development Plan description indicates that this protected view comprises the entire local road between Leney and Multyfarnham. Glimpses of Lough Derravaragh were seen in between buildings and other screening, but no clear view is to be obtained at eye level from the road. More open views to the west and northwest are seen on the

road which exits Leney to the north. Visibility of the proposed wind farm is likely to be screened from these roadside views.

The village of Fore lies just outside the ZTV, while parts of the Fore Trail area within the ZTV have theoretical visibility. An additional photomontage in the Photomontage Booklet (Photomontage 22) shows that there is some visibility from Fore Abbey but only blades of two turbines are visible as small features in the background of the view. The effects of the proposed turbines on the archaeological feature is addressed in Chapter 13 – *Cultural Heritage.*

A section of the N4 National Route is located within 5-10 kilometres of the Wind Farm Site and several images were taken along this route. While a considerable area lies within the ZTV, open views are extremely rare, and in any open views that were photographed, the turbines were hidden due to other screening factors such as localised topography or distant treelines. Therefore, any views will be glimpses as opposed to long stretches of uninterrupted views.

Receptors between 10-20 kilometres from the Wind Farm Site

Between 10 and 20 kilometres, the ZTV indicates that visibility is less. Again, the lowland nature of the site means that the topography and vegetation obstructs views significantly at distance so visibility is, again, likely to be less than represented on the ZTV map.

A number of photomontages, viewpoints 9, 11, 12, and 14 represent views from these locations (between 10k m and 20 km). Two, 12 and 14, are from High Amenity Areas and at or close to protected views. There is no visibility of the Wind Farm Site from the Lough Lene picnic area. Viewpoint 12 shows that the turbines will not affect the protected view, the turbines appearing as blade tips only in the distance behind the lake which is the intended view. Photomontage 14 is taken from Frewin Hill, in the Lough Owel High Amenity Area, and shows the turbines will be visible in the distance. However this panoramic view is not considered to be in any way obstructed by the turbines.

Photomontage 11 is from Sliabh na Calliagh (Lough Crew), a national monument and protected view. This location is a well-known archaeological site and a location of cultural heritage, and a tourist attraction. The views from the hilltop are panoramic views in all directions, and range from views over foreground hills to extensive views of a low-lying landscape. The proposed turbines at Coole are visible to the west as small discrete features in the background of the landscape, with some small hills in the foreground. As shown in Photomontage 11, no other with wind turbines are visible in the same viewshed as the Proposed Development from the peak of Sliabh na Calliagh.

Views to the north west and north from Sliabh na Calliagh show long distance views over a flat landscape where the singular Ballyjamesduff turbine is visible. Other wind turbines (Bindoo and Mountain Lodge) are faintly visible to the north in good weather conditions as seen in Plate 12-12 below, although they are over 28 km from Sliabh na Calliagh and any cumulative visual effects are with the Proposed Development is negligible (they are >32 km from Coole Wind Farm). Distant wind turbines, especially in low lying areas, would be visible in good conditions but less visible depending on atmospheric weather conditions.

Plate 12-12 View north from Sliabh na Calliagh with wind turbines visible

Westmeath protected View 33 appears to be in the direction of the proposed turbines but the route was driven several times and the view of Lough Derravaragh could not be identified, while views of the countryside to the east and northeast were identified, a photomontage showed that no views of turbines were available near the protected view location on the map in the WCDP. Westmeath protected View 27 is located to the south-west of the site near Frewin Hill – was not apparent during a site visit, while the views from Frewin Hill, an important archaeological site, and a location with spectacular panoramic views, was nearby, and was included to represent views (photomontage viewpoint 14).

Overall, tools such as the ZTV, route screening map, photomontages and overlaid wireframe images (e.g. Plate 12-11 above) indicate that there will be visibility of the turbines in many locations, in most instances visibility is less than was indicated by the ZTV. The landscape around the Wind Farm Site includes areas of significant screening, which due to the lowland nature of the Wind Farm Site has a pronounced effect on the visibility of the turbines from other low lying areas in the surrounding area which will be intermittent.

A number of protected views have been represented, and while a number of these show visibility of the turbines, in all cases, the turbines are an element of the view, but do not obscure, dominate or detract from the main elements of the view. Many of the protected views are associated with the lakes. The overall visual impact of the turbines will vary depending on the location, however the overall effect is considered Slight to Moderate.

12.9.3.1.2 Borrow Pit

Mitigation: Following the construction phase, the borrow pit will be levelled, covered over with overburden and allowed to re-vegetate naturally. Overburden will also be deposited along the edge of the borrow pit, which will be allowed to re-vegetate and this will reduce visibility of the pit. Safety fencing and signage will be constructed. Following this, the gravel road will be allowed to re-vegetate. The predicted visual effect, after mitigation, is considered Medium-Term, Slight negative visual effect.

12.9.3.1.3 Substations and Grid Connection and Cabling

During the operational phase, the onsite substation is at an isolated location within existing forestry which will provide significant screening to the substation itself, however, there is a possibility of

visibility, particularly during the winter season, from the road immediately adjacent to the substation. However, the lattice towers (c19m) will not be significant in terms of their potential for visual or landscape effects in the context of their location within the Wind Farm Site comprising of 15 No. wind turbines of up to 175m tip height.

The predicated effect is Long Term, Imperceptible Negative visual effect. The grid connection cabling is to be laid underground, and therefore no operational phase visual effects are considered likely. The infrastructure being added to the existing Mullingar substation will remain in place within the substation. As this substation is heavily screened within tall, dense hedgerows, the additional electrical infrastructure will not be visible. Therefore, this element of the Proposed Development will have no impact.

12.9.3.1.4 *Site roads, Temporary Compounds and other features*

Approximately 26.4 km of new site roads are proposed. The site access roads have made use of any existing access where possible, and in other cases are proposed on areas of cutover peat. The predicted landscape effect is Long Term, Imperceptible to Slight negative landscape effect.

12.9.3.1.5 *Temporary Construction Compound*

The Construction Compound effects are assessed during the Construction phase, as it will not be in place during the operational phase.

12.9.3.1.6 *Junction Accommodation Works and Road Upgrades*

These have been assessed in the Construction Phase effects.

12.9.3.2 Landscape Effects

The landscape effects of the Proposed Development are described in relation to both effects on the wider landscape character, and effects on the landscape fabric and components of the site. A comprehensive assessment of each Landscape Character Area within the wider LVIA study area is detailed in Appendix 12-2 and the assessment results are shown in Section 12.8.2. The main landscape fabric can be described as cutover bog and areas of coniferous forestry, with the Rivers Glore and Inny also present on the site.

12.9.3.2.1 *Turbines*

The landscape effects of the turbines are minimal, with the effects being mainly visual. The permanent footprint of the Proposed Development, including the turbine bases and all ancillary equipment, is limited and takes up approximately 26.4 hectares of the site area in total. The turbines are all located on cutover peat with the exception of one which is located in forestry. A limited amount of felling (approximately 16.36 hectares) will be carried out during the construction of the development to facilitate the turbines and associated infrastructure, but this would be part of ongoing forestry operations and is not regarded as significant in the contact of the wider forestry plantations. On decommissioning, the turbines components will be removed from the site.

On a wider scale, the landscape character of the site and the LCA within which it lies, the Inny River Lowlands, will undergo a degree of change as a result of the Proposed Development. However the characteristics of the LCA are described as including the low lying ground along the Inny River, and pastoral landscape, extensive areas of cutaway bog and conifer plantations. The numerous lakes within the LCA are also mentioned as well as the historic houses and demesnes. While the visual effect of the turbines will be perceived from some of these areas, the landscape character of sensitive areas such as the lakes, amenity areas and designated views is not likely to undergo a change in character as a result of the Proposed Development.

The landscape elements close to the site which have value include the Mullaghmeen area, the Hill of Mael/Rock of Curry, Tullynally demesne, the various lakes, and these will remain as key elements in the landscape, and the turbines will provide an additional element in the landscape. The turbines do

not however encroach or impact significantly on these ley elements of the landscape and so the overall effect of the turbines on the landscape character of the wider areas is likely to be Long Term, Slight to Moderate effect.

12.9.3.2.2 *Borrow Pit*

The landscape effects of the borrow pit are assessed during the Construction Phase. During the Operational Phase the effect will be the same as the landscape effect described in the Construction phase, when the reinstatement measures have been put in place.

12.9.3.2.3 *Substations and Grid Connection and Cabling*

During the operational phase, the substation building will be located in forestry and while it may be visible in the immediate vicinity it will be screened from the public road and the wider views. The predicated effect is Long Term, Imperceptible Negative visual effect. The grid connection cabling is to be laid underground, and therefore no operational phase visual effects are considered likely.

12.9.3.2.4 *Site roads, Temporary Compounds and Other Features*

Approximately 11.14 kilometres of new site roads are proposed. The site access roads have made use of any existing access where possible, and in other cases are proposed on areas of cutover peat and a small area of forestry. The predicted landscape effect is Long Term, Imperceptible to Slight landscape effect.

Temporary Construction Compound

The Construction Compound effects are assessed during the Construction phase, as it will not be in place during the operational phase.

Junction Accommodation Works and Road Upgrades

These have been assessed in the Construction Phase effects.

12.9.4 Cumulative Effects

12.9.4.1 Cumulative Visual Effects

Photomontages were used to assess the potential for cumulative visual effects of the proposed Coole turbines with other wind turbines. As detailed in Appendix 12-3, no cumulative visual effects were recorded from any of the 22 photomontage viewpoint locations as the single Ballyjamesduff turbine was not visible in any of the 90º photomontages (only just discernible in the 120º Key Image from Viewpoint 18).

Cumulative visual effects of the proposed turbines along with any potential peat extraction activities are considered Imperceptible and extremely localised – any peat harvesting activities will only be evident from locations close to the site, due to screening, and in general has a low visual impact, the site being largely cutover at present.

Forestry operations such as felling and re-planting are ongoing. The forestry on the site of the Proposed Development was planted as a commercial crop, and the 16.36 hectares of forestry which is to be felled as a result of the Proposed Development will be felled irrespective of the Proposed Development being constructed.

A total of 16.36 hectares of forestry will be replanted as a condition of any felling license issued in respect of the Proposed Development, as detailed in Section 4.3.16 of this EIAR. The potential impacts

associated with the proposed replanting are assessed in the Replanting Assessment, presented as Appendix 4-6 of this EIAR.

12.9.4.2 Cumulative Landscape Effects

The Cumulative landscape effects have the potential to occur mainly at the landscape character scale. However, in this case, as there are no other wind farms in close proximity, the cumulative landscape effects relate mainly to the landscape fabric and are more localised. These potential effects include the combination of the removal of landscape elements including a relatively small area of coniferous forestry and other areas of vegetation along the route of the proposed link road and at the junctions. These proposed works are assessed in addition to any existing land use practices referred to in Section 2.5.2 of this EIAR. It is considered that the cumulative landscape effects at the Operational stage are localised, and will not be experienced at the scale of the entire landscape character area and are Medium to Long Term, Slight Negative landscape effects.

12.10 Summary of Effects

Landscape Effects

The above sections have identified and discussed the likely and significant landscape and visual effects of the Proposed Development.

The Proposed Development is located on an area of cutover peatland, coniferous forestry and agricultural land. The Westmeath County Development Plan 2014-2020 identifies cutover peatlands as the preferred location for large scale wind energy production. Cutover peatlands and coniferous forestry as well as some agricultural fields are found in the immediate vicinity.

The proposed 15 turbines windfarm has a relatively small footprint, and the landscape effects of the Proposed Development on the fabric of the landscape are generally localised and will be more pronounced during the construction phase, removal of 16.36 hectares of forestry and removal of vegetation as well as the excavation of the borrow pit. It is considered that overall, the landscape effects of the Proposed Development on the site itself as well as on the wider landscape will range from Long Term, Slight to Moderate effect.

Visual Effects

In terms of visual effects, a number of ZTV maps, a route screening assessment and 22 photomontages were among the tools used to assist in the assessment of landscape and visual effects. The Route Screening Assessment (see Figure 12-10) categorised roads within five kilometres of the Proposed Development by their roadside screening (little/no screening, intermittent/partial screening, or dense screening). Figure 12-10 shows that within 1 kilometre of the site, there are few roads and intermittent or partial screening was the most dominant category of screening. Within 1-3 kilometres, as well as within 3-5 kilometres, this category remains the dominant type of screening.

Of the 22 photomontages, one was considered to be 'Imperceptible', six were considered 'Not Significant', eleven were considered 'Slight' and four were considered 'Moderate'. Viewpoints 3, 5, 7 and 21 were considered to have visual impact of Moderate significance, and these, in general, are views where all 15 turbines are visible in relatively close proximity, and have a moderate spatial extent in the view. While viewpoint 7 is taken in very close proximity to the Proposed Development and the turbines therefore appear large, Viewpoints 3, and 5 demonstrate some screening by vegetation. In addition, viewpoints 3 and 5 both show the proposed turbines, while visible, still allow views to the hills in the background and do not dominate the views or obstruct the scenic qualities. Viewpoint 21, from the summit of Mullaghmeen, is considered to have a visual effect of Moderate significance. The turbines

are all visible but occupy a limited extent of the view and result in a moderate change in the view. They do not obstruct the panoramic view. Views to the north to Lough Sheelin are not affected.

The location of the Proposed Development is not within a High Amenity Area, however; a number of photomontages (Viewpoints 6, 12, 14 21) were taken from High Amenity Areas or other designated areas to represent visibility from these areas. In addition, a number of protected views (Views 43, 47, 49, 51 represented by photomontages and by descriptive text and images) in Co. Westmeath have been represented. While a number of these show visibility of the turbines, in all cases, the turbines are an element of the view, but do not obscure, dominate or detract from the main elements of the view. Many of the protected views are associated with the lakes which are at a significant distance from the wind farm site.

The overall visual impact of the turbines will vary depending on the location. The visual impacts represented by the photomontages 1-22 range from Imperceptible to Moderate, however none are categorised as Significant or Profound. The overall effect is considered to range from Slight to Moderate.

In terms of cumulative visual effect, the Proposed Development is not in close proximity to any other turbines, the closest permitted turbine being located over approximately 16.4 kilometres from the Proposed Development and therefore does not give rise to cumulative visual effects.