

12. LANDSCAPE AND VISUAL

12.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) addresses the potential landscape and visual impacts of the proposed Umma More Renewable Energy Development. The emphasis in this chapter is on the likely significant direct and indirect effects of the Proposed Development. It covers 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 LVIA Study Area in which the Wind Farm Site is located, as well as relevant landscape policy for County Longford, County Offaly and County Roscommon where some visibility of the Wind Farm Site may occur.

The landscape of the area is described in terms of its existing character, which includes a description of landscape values and the landscape's sensitivity to change. The landscape and visual impact assessment of the Wind Farm Site uses visibility mapping, representative viewpoints and photomontages. The potential impacts in both landscape and visual terms are then assessed, including cumulative impacts.

12.1.1 Statement of Authority

MKO has developed extensive expertise and experience over the last 15 years in the Landscape and Visual Impact Assessment of a range of projects, including large scale wind energy developments. The Landscape and Visual Impact Assessments were conducted and reported in this Chapter by Jack Workman, Saoirse Fitzsimons, and Jack Smith.

Jack Workman MSc, TMLI, is a Technician Member with the British Landscape Institute (TMLI). Jack is the Landscape & Visual Team manager at MKO, he is an Environmental Scientist and Landscape and Visual Impact Assessment (LVIA) specialist. Jack's primary role at MKO is producing the LVIA chapter of EIA reports for large infrastructure developments. Jack holds an MSc. In Coastal and Marine Environments and a BSc. In Psychology, he is a member of the Landscape Research Group, as well as holding a membership with the Chartered Institute of Water and Environmental Management.

Saoirse Fitzsimons is an Environmental Scientist and LVIA Specialist with MKO. Her primary role at MKO is producing the Landscape and Visual chapter of EIA reports. Saoirse holds an MSc. In Coastal and Marine Environments from the National University of Ireland, Galway where she was awarded The Prof Micheál O Cinnéide Award for Academic Excellence. Since joining MKO, Saoirse has worked widely on renewable energy infrastructure, commercial, recreational, and residential projects. Saoirse is a qualified Unmanned Aerial Vehicle Operator and holds an A1/A3 and A2 drone licence.

Jack Smith, MSc, ML, is an LVIA Specialist and Environmental Scientist at MKO. Jack holds an MSc in Environmental Leadership, an ML in International, Environmental & Energy Law and also a BCL in Civil Law. His primary role at MKO is conducting LVIA's and writing the Landscape and Visual chapter of EIA reports. Jack is an Affiliate member of the British Landscape Institute and holds membership with the Landscape Research Group.

This chapter was reviewed by Michael Watson. Michael is Project Director and head of the Environmental Team at MKO, an Irish planning and environmental consultancy with wind energy a company specialism. Michael has extensive expertise conducting LVIA's for wind farm developments and 20 years' professional consultancy experience as a project director, project manager and lead coordinator of environmental impact assessments for wind energy and other large-scale infrastructure projects.

12.1.2 'Do Nothing' Scenario

If the Proposed Development were not to proceed, no changes would be made to the current land-use of low intensity agriculture. Should this occur, the impact would be neutral in the context of this EIAR.

In implementing the 'Do-Nothing' alternative, however, the opportunity to capture a significant part of County Westmeath's renewable energy resource would be lost, as would the opportunity to contribute to meeting Government and EU targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions. On the basis of the positive environmental effects arising from the Proposed Development, the do-nothing scenario was not the chosen option.

12.1.3 Proposed Development Description

Umma More Ltd intends to apply to An Bord Pleanála for planning permission to construct a renewable energy development which will comprise 9 No. wind turbines, and associated infrastructure in the townland of Umma More, and adjacent townlands, in Co. Westmeath. A separate planning application will be made to An Bord Pleanála for a temporary construction compound, a 110kV onsite substation and associated underground 110kV cabling connecting to the existing Thornsberry 110kV substation. The Grid Connection 110kV infrastructure and associated works will not form part of this planning application, however, it is assessed in this EIAR.

As detailed in Section 1.1.1 in Chapter 1, for the purposes of this EIAR, the various project components are described and assessed using the following references: 'Proposed Development', 'Wind Farm Site' and 'Grid Connection', which is described in detail in Chapter 4 of this EIAR. Each individual element of the Proposed Development will be assessed both independently and where necessary in combination with each other.

Essential Aspects of the Proposed Development from an LVIA Perspective

The term 'proposed turbines' or 'Proposed Development turbines' refers to the 9 No. turbines proposed as part of the Proposed Development. Guidance for LVIA (GLVIA3, 2013) states that *"it is important to make sure that the project description provides all the information needed to identify its effects on particular aspects of the environment. For LVIA it is important to understand, from the project description, the essential aspects of the scheme that will potentially give rise to its effects on the landscape and visual amenity"*. The tall, vertical nature of the proposed turbines make them the most prominent elements of the Proposed Development from a landscape and visual perspective and have the most potential to give rise to significant landscape and visual effects. In this regard, the proposed turbines are deemed to be the 'essential aspect' of the Proposed Development which will give rise to effects on the landscape and visual amenity and are therefore a primary focus of the LVIA conducted in Chapter 12.

Other components of the Proposed Development, i.e. Grid Connection and all other components of the Wind Farm Site are not deemed to be as visually prominent as the proposed turbines, however, they have the potential to give rise to localised landscape and visual effects. Although not the primary focus of the LVIA, these elements are given due consideration throughout this chapter.

12.1.4 Mitigation by Design

Through the iterative Proposed Development design process, informed by early-stage impact assessment work, landscape modelling, ZTV mapping and photomontage preparation, every effort has been made to bring forward the optimum design for the Wind Farm Site with respect to landscape and visual factors. The Proposed Development layout that is the subject of this LVIA,

already incorporates the following landscape and visual design considerations for good wind farm design, with a particular focus on site selection:

- Strategic siting of the proposed turbines in a valley visually contains the proposed infrastructure, resulting in very limited visibility from receptors in the relatively flat and vegetated landscape of the wider study area beyond 3km from the Wind Farm Site.
- The turbine layout has been designed to create a coherent arrangement of turbines, contiguous and connected to each other visually and with consistent spacing in line with the guidance for design and siting of wind farms within Hilly and Flat Farmland Landscape Types in the Wind Energy Development Guidelines (hereafter referred to as the Guidelines) for Planning Authorities (Department of the Environment, Heritage and Local Government (DoEHLG), 2006),
- The 'L-shaped' Layout is sympathetic to the shape and characteristics of the landform of the Wind Farm Site and siting of the proposed turbines at a low elevation relative to surrounding receptors often causes a disproportionate screening effect reducing visual exposure of the proposed turbines within the wider landscape.
- Siting of the proposed turbines at a lower base elevation relative to receptors (and viewpoints) reduces their visual prominence and visual effects in the landscape, as demonstrated by the photomontages included in the EIAR Volume 2: Photomontage Booklet.
- The proposed turbines are strategically sited within a modified working landscape where there is limited visibility (or large set back distances) from large population centres and designated landscape and visual receptors of high sensitivity.
- Siting of proposed turbines adheres to the minimum 500 metre set back distance in the Guidelines (DoEHLG, 2006) and also the 4 times tip height set-back distance explicitly set out for residential visual amenity prescribed by the Draft Revised Wind Energy Development Guidelines (hereafter referred to as the draft Guidelines) (Department of Housing, Planning and Local Government (DoHPLG, 2019)).
- The proposed connection to the national electricity grid is underground thereby eliminating potential landscape and visual effects during the operational phase.
- The internal Wind Farm Site road layout makes use of the existing tracks wherever possible, to minimise the requirement for new tracks within the Wind Farm Site.
- The layout of the Proposed Development has been designed to ensure minimal loss of valuable landscape receptors and biodiversity corridors such as woodland and hedgerows along field boundaries.

During the initial site selection process, landscape sensitivity was identified as a key constraint and so landscapes considered to be less sensitive are preferred over sites with more sensitivity to change. The Wind Farm Site location and current layout minimises the theoretical potential for visibility and the site visits and assessment tools show that the actual visibility is far less than the theory. Where visibility does occur, the design of the Proposed Development is in accordance with best practice and a coherent layout neatly assimilates within the receiving landscape.

12.1.5 Assessments of Other Alternative Turbine Designs

The landscape and visual impacts were considered as part of the early-stage planning process. Alternative turbine envelope specifications were generated for a series of preliminary ZTVs and photomontages in order to assess the extent to which alternative turbine designs may give rise to visual effects. These early-stage assessments enabled the choice of suitable and appropriately scaled turbines for the Proposed Development in mind of mitigating any potential adverse landscape and visual effects. For more information on alternative designs, please see Chapter 3 of this EIAR – *Consideration of Reasonable Alternatives*.

12.1.6

Scoping Replies /Pre-Planning Meeting

Pre-application consultations were held separately with Westmeath County Council and An Bord Pleanála in June 2022 via Microsoft Teams. The meetings were attended by representatives of the Westmeath County Council, An Bord Pleanála, Umma More Ltd. and MKO.

MKO presented an overview of the scope of the LVIA including ZTV mapping and photomontages that had been produced. Westmeath County Council representatives shared their interest in seeing assessment of historic and cultural impacts on the Hill of Uisneach. The meeting with An Bord Pleanála discussed the effects from scenic locations such as the Hill of Uisneach and other relevant landscape and visual designations in local planning policy, as well as including an assessment of designations such as Landscape Character Areas in counties other than Westmeath, such as Offaly and Longford where some visibility may occur. The location of Grid Connection underground electrical cabling route in the public road corridor and on private land was also discussed with An Bord Pleanála. This chapter has assessed the likely landscape and visual impacts of the Proposed Development on the landscape and visual receptors discussed at these pre-planning meetings. A detailed summary of the topics discussed at each of these pre-planning meetings are detailed in Section 2.6.5 of Chapter 2 of this EIAR.

Access to The Hill of Uisneach

No access was permitted to the Hill of Uisneach for the capture and production of photomontages. The landowner formally notified the authors of this LVIA and other EIAR professionals involved in the Proposed Development that no imagery was to be captured for the production of photomontages from the Hill. In respect of privacy and consideration of GDPR, correspondence relating to this notification between the landowner and MKO has not been included in this EIAR, however, this can be provided to the planning authority & An Bord Pleanála upon request. In order to both comply with this formal notification and complete a robust Landscape and Visual Impact Assessment from this important receptor, MKO have produced a 'Rendered Wireline' which is included as Viewpoint 16 in the EIAR Volume 2: Photomontage Booklet. The likely landscape and visual effects arising from the Hill of Uisneach are comprehensively discussed later in this Chapter with the aid of ZTV mapping, aerial imagery and online imagery (e.g., [Google Street View imagery](https://www.google.ie/maps/@53.4889486,-7.563041,2a,90y,253.7h,85.78t/data=!3m6!1e1!3m4!1sa-GWYEH_z34MSp_JXjOGXg!2e0!7i13312!8i6656) E 628998, N 748859) and the Rendered Wireline.

Web address for Google Street View on the Hill of Uisneach where the Rendered Wireline is located:
https://www.google.ie/maps/@53.4889486,-7.563041,2a,90y,253.7h,85.78t/data=!3m6!1e1!3m4!1sa-GWYEH_z34MSp_JXjOGXg!2e0!7i13312!8i6656

12.2

Brief Methodology and Assessment Criteria

This section broadly outlines the methodology and the guidance used to undertake the landscape and visual impact assessment of the Proposed Development; a more detailed description of the methodology is outlined in Appendix 12-1. There are five main sections to this assessment:

- Visibility of the Proposed Development – ZTV Mapping
- Landscape Baseline
- Visual Baseline
- Cumulative Baseline
- Likely and Significant Effects – outlining the assessment of landscape, visual and cumulative effects

12.2.1

Scope and Definition of Landscape and Visual Impact (LVIA) Study Area

This Chapter follows the naming conventions and definitions detailed in Section 1.1.1 of Chapter 1. Where the ‘Proposed Development’ is referred to, this relates to the primary study area for all elements of the Proposed Development, as shown delineated in green on the LVIA Baseline map (Appendix 12-5) and the ZTV Map (Figure 12-1 below) as the ‘EIAR Site Boundary’. Where the ‘Wind Farm Site’ is referred to, this relates to the immediate landscape where the turbines and associated foundations and hard-standing areas, meteorological mast, junction accommodation works, access roads, temporary construction compound, underground cabling, spoil management, site drainage, tree felling and all ancillary works and apparatus are located. The site of the Proposed Development (both the Wind Farm Site and Grid Connection) is discussed in some detail in terms of its landscape character in Section 12.4 of this chapter – *Landscape Baseline*.

Landscape and visual baseline mapping and viewpoint selection are based on a wider study area referred to as the ‘LVIA Study Area’. The geographical parameters for this LVIA were determined by desktop studies, survey work undertaken, the professional judgement of the assessment team, experience from other relevant projects and policy guidance or standards (*Appendix 3*, Wind Energy Development Guidelines – DoEHLG, 2006 (including reference to the draft Guidelines DoHPLG, 2019) and the Guidelines for Landscape and Visual Impact Assessment – GLVIA3, (Landscape Institute & IEMA, 2013 2013).

The distance at which a ZTV is set from a proposed wind farm development usually defines the parameters of the LVIA Study Area. In most cases, ZTV mapping will be produced within a radius of 20 km from the proposed turbines, however, the 2006 DoEHLG Guidelines for Planning Authorities require that *“in areas where landscapes of national or international renown are located within 25 km of a proposed wind energy development, the Zone of Theoretical Visibility should be extended as far (and in the direction of) that landscape”*. The archaeological complex at Clonmacnoise (approx. 23.5 km from the proposed turbines) is a World Heritage Site and is deemed to be a landscape of national and international renown. Therefore, the ZTV shown in Figure 12-1 (Section 12.3, Visibility of the Proposed Development) has been extended to 25 kilometres to include Clonmacnoise. Consequently, the LVIA Study Area has been established as 25km from the proposed turbines to account for the landscape and visual effects of the Proposed Development from the heritage landscape at Clonmacnoise.

Through experience conducting LVIA for other wind energy development projects, the assessment team determined that no significant effects on landscape character are likely to arise beyond distances of 15km from the proposed turbines. Therefore, a LVIA Study Area of 15km is deemed appropriate for effects on landscape character in relation to the assessment of effects upon designated Landscape Character Areas.

Furthermore, as prescribed by best practice guidance and professional experience of the assessment team, the following topic areas have been scoped out of the assessment:

- Effects on landscape and visual receptors that have minimal or no theoretical visibility (as predicted by the ZTV) and/or very distant visibility, and are therefore unlikely to be subject to significant effects;
- Effects on designated landscapes beyond a 25 km radius from the proposed turbines, from where it is judged that potential significant effects on key characteristics and/or special qualities, or views are judged unlikely to occur;
- Effects on landscape character beyond a 15 km radius from the proposed turbines, where it is judged that potential significant effects on landscape character are unlikely to occur;
- Effects on visual receptors beyond a 25 km radius from the proposed turbines, where it is judged that potential significant effects are unlikely to occur;

- Cumulative landscape and visual effects beyond a 25 km radius from the proposed turbines, where it is judged that potential significant effects are unlikely to occur;

12.2.2 Guidelines

The legislation and general guidance on Environmental Impact Assessment is set out in Chapter 1 of this EIAR. The LVIA assessment reported in this chapter was guided and informed by guidance documentation specifically pertaining to Landscape and Visual Impact Assessment, details of the guidelines used to produce this assessment are outlined in the Methodology Appendix - *Appendix 12-1*.

12.2.3 Baseline Landscape and Visual Information

In order to carry out this assessment, an initial desk study of baseline information was undertaken that has informed the LVIA, and this included the following:

Landscape

- Policies and objectives contained in the relevant county development plans (Counties: Westmeath, Longford; Offaly; Roscommon) pertaining to landscape and wind energy;
- Landscape designations in the LVIA Study Area;
- Landscape character of the LVIA Study Area;
- Landscape character of the Proposed Development site based on:
 - Site Surveys undertaken throughout 2021 and 2022;
 - Landscape Character Types identified in *Landscape Character Types as a basis for Guidelines*: the Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, 2006) and also cognisant of the draft Guidelines (Department of Housing, Planning and Local Government, 2019)

Visual

- Identification of Visual Receptors in the LVIA Study Area;
- Preliminary assessments of visibility of the Proposed Development from visual receptors using ZTV mapping and on-site appraisals.

12.2.4 Assessment of Potential Impacts

The landscape and visual assessment methodology used in this chapter (outlined in Appendix 12-1) includes clearly documented methods based on the GLVIA guidelines (LI & IEMA, 2013). This includes consideration of landscape and visual sensitivity balanced with the magnitude of the effect to determine the significance of effects. Mitigating factors are then taken into consideration to arrive at residual landscape and visual effects. Residual landscape and visual effects are graded upon an 'impact assessment classification of significance' scale, as defined by the Environmental Protection Agency of Ireland (EPA, 2022).

Assessment of potential impacts uses photomontages, whereby the potential effects arising as a result of the proposed turbines are assessed from viewpoint locations representative of prominent and sensitive landscape and visual receptors located within the LVIA Study Area. The photomontages are included in Volume 2 of this EIAR and a comprehensive assessment of each viewpoint is included in Appendix 12-3. Detailed information on the methodology used for the production of photomontages and the methods used for landscape and visual impact assessment are presented in the methodology appendix - *Appendix 12-1*. Throughout this chapter 'theoretical visibility', is referred to, this is based on Zone of

Theoretical Visibility (ZTV) mapping which is addressed in the following section of this chapter (Section 12.3).

12.3

Visibility of the Proposed Development

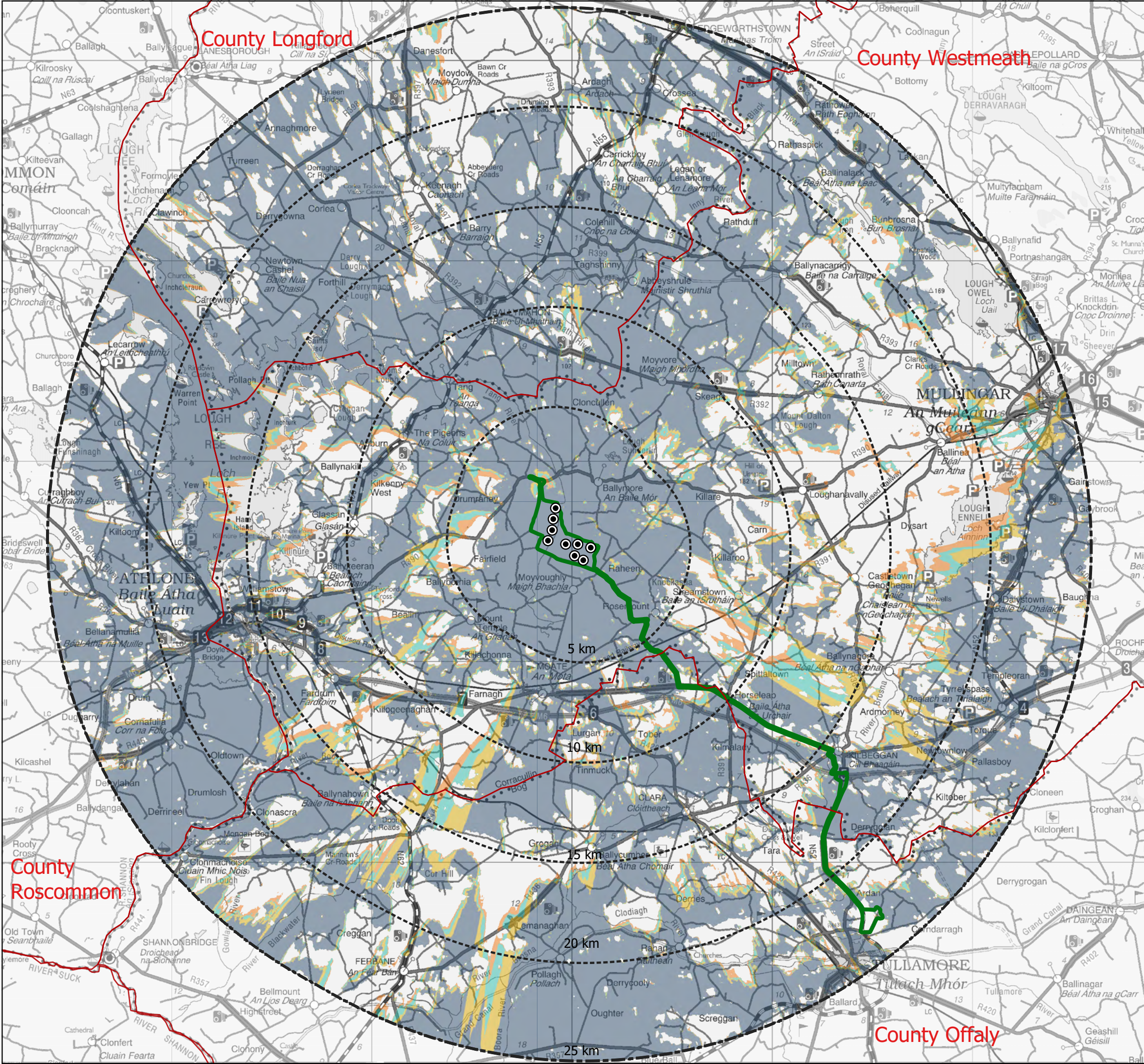
12.3.1

ZTV Mapping: Theoretical Visibility of the proposed turbines

ZTV mapping is an important step in the LVIA process, in that it clearly shows which areas of the LVIA Study Area will have theoretical visibility of the proposed turbines and which areas will have no visibility. The ZTV mapping methodology outlined in Section 1.3 of *Appendix 12-1* was used to examine the theoretical visibility of the 9 No. proposed turbines from all landscape and visual receptors within the LVIA Study Area, using the half blade height of the wind turbines as points of reference. As noted in *Appendix 12-1*, actual visibility on the ground is significantly less than predicted by the ZTV mapping due to intervening factors such as on-site screening from natural and man-made features, atmospheric weather, and/or localised topography.

Generation of the ZTV utilises large scale topographical data (interpolation across 10 m OSi contour data) and does not account for topographical variation of smaller scale (e.g., < 10 metre). Therefore, in reality, small, localised undulations in topography are likely to further inhibit visibility of the proposed turbines that may not be represented in the ZTV map. Other features of the landscape such as vegetation and man-made elements are also likely to obscure the proposed turbines from view from many areas where the ZTV indicates there is full visibility. In this regard, the ZTV is a useful tool to indicate where there is definitely no visibility of the proposed turbines, therefore, receptors located in these areas can be screened out from further assessment.

The 2006 DoEHLG Guidelines for Planning Authorities require that *'in areas where landscapes of national or international renown are located within 25 km of a proposed wind energy development, the Zone of Theoretical Visibility should be extended as far (and in the direction of) that landscape'*. As Clonmacnoise is a World Heritage Site and considered a landscape of 'national or international renown' the ZTV and LVIA Study Area has been extended to 25km for Figure 12-1 below.



Map Legend

- Proposed Turbines
- EIAR Site Boundary
- LVIA Study Area
- County Borders

Half Blade ZTV

- 1-2 Turbines Theoretically Visible
- 3-4 Turbines Theoretically Visible
- 5-6 Turbines Theoretically Visible
- 7-9 Turbines Theoretically Visible

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Drawing No.

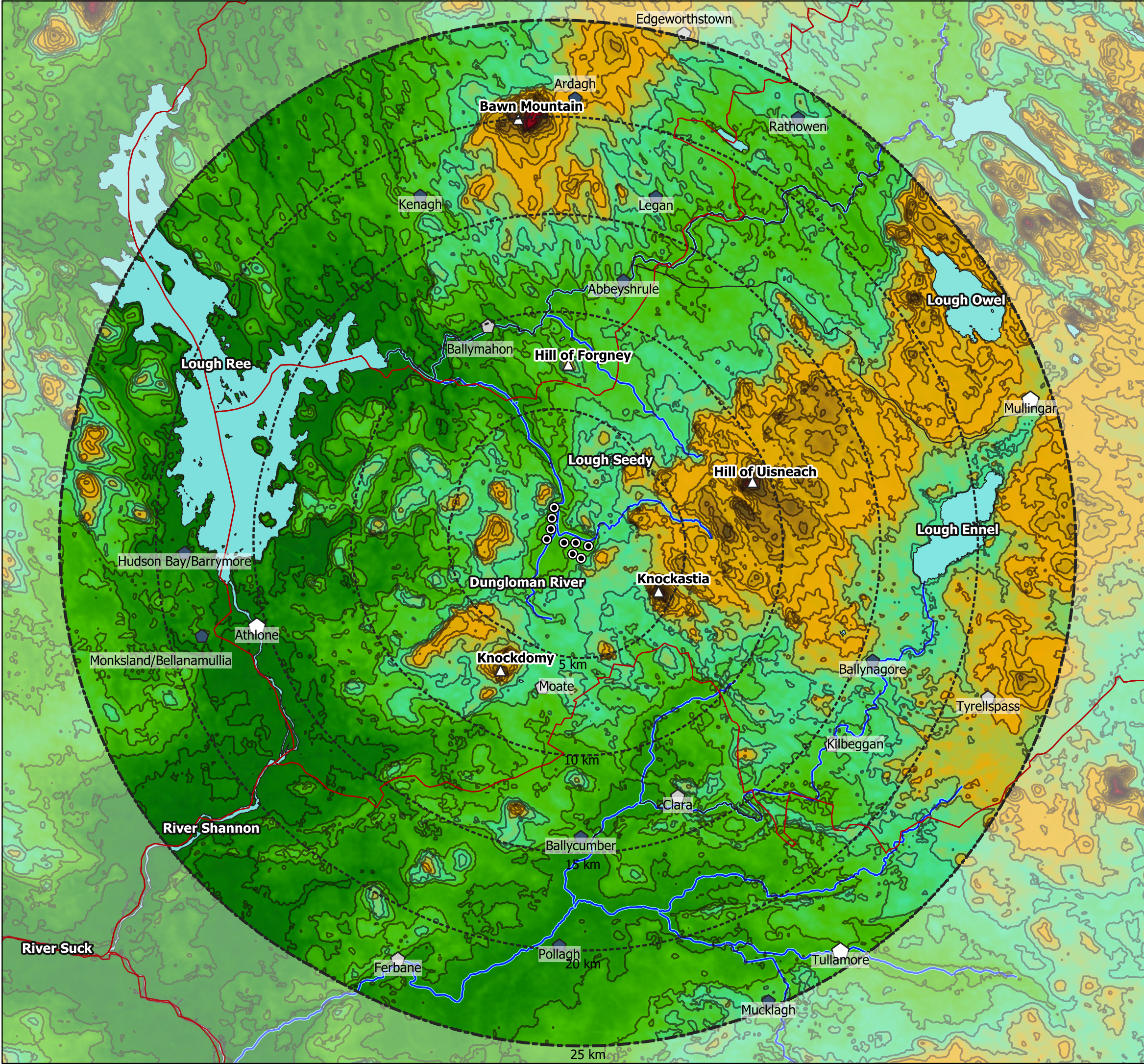
Figure 12-1

Drawing Title
Zone of Theoretical Visibility Map

Project Title
Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:185,000	201050	03.11.2022	SF	JW





Map Legend

- Proposed Turbines
- LVIA Study Area
- County Borders
- Elevation (Above Ordnance Datum)**
 - 20 metres
 - 50 metres
 - 60 metres
 - 80 metres
 - 100 metres
 - 120 metres
 - 140 metres
 - 160 metres
 - 180 metres
 - 200 metres
- Countours - 10 Metre Interval
- Waterbodies
- Watercourses / Rivers
- Topographical Features
- Standardised settlement Hierarchy**
 - County Hub Town
 - Town
 - Village

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Drawing No.

Figure 12-2

Drawing Title
Physical Landscape Features

Project Title
Umma More Renewable Energy Development

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	201050	03.11.2022	SF	JW



12.3.2 Half Blade ZTV of the Proposed Turbines

A Half Blade ZTV map is shown in Figure 12-1 above. The ZTV map is used within several mapping figures included in this chapter to enable assessment of theoretical visibility of the proposed turbines from landscape and visual receptors (See Appendix 12-5 - *LVIA Baseline Map*; Figure 12-14- *Landscape Character Areas & ZTV*; Figure 12-16- *Visual Baseline & ZTV*). Separate colour bands are used on each ZTV map to indicate the number of turbines of which the half blade will potentially be visible. The legend on each map shows the number of theoretically visible turbines for each corresponding colour, which are as follows:

- Orange: 1-2 turbines theoretically visible.
- Green: 3-4 turbines theoretically visible
- Yellow: 5-6 turbines theoretically visible
- Dark Blue: 7-9 turbines theoretically visible

Figure 12-2 (above) shows the topographical features and elevation gradients existent within the receiving landscape of the LVIA Study Area, the geography of these topographical landforms defines the distribution of theoretical visibility illustrated in Figure 12-1.

The topographical characteristics of the LVIA Study Area is generally representative of the Irish midland landscape in that it is relatively flat, particularly to the south and west. There is only approximately 170 metres difference in elevation from the lowest point (Shannon River in the southwest ~ 30m AOD) to the highest point (Bawn Mountain to the north ~200m AOD) across the LVIA Study Area which comprises a total area of approximately 2,143 km². Topographical features provide a relatively pronounced screening effect in flat landscapes. The following discussion considers various topographical characteristics of the LVIA Study Area as they relate to theoretical visibility as output by the ZTV map above.

Distribution of Theoretical Visibility within 5 km of the Wind Farm Site

As shown in the physical landscape features map (Figure 12-2), the Wind Farm Site is located in a topographical depression of a small river valley (the Dungolman River and its tributary). As the proposed turbines are sited in a plain of relatively flat land of low elevation, it is surrounded in all directions by slightly elevated landform. Consequently, there is predominantly full theoretical visibility of all 9 proposed turbines within 5 km of the Wind Farm Site. There are several areas approximately 2.5 km west and north-west of the Wind Farm Site where there is no theoretical visibility. Very limited theoretical visibility (1-6 turbines) occurs approximately 900 metres north of turbine T1 where the rising landform immediately north-north-west of the Wind Farm Site will provide screening. There is a patch of limited theoretical visibility approximately 3 km east of the Wind Farm Site in the townlands of Clare and Dungaghy.

Distribution of Theoretical Visibility beyond 5km of the Wind Farm Site

The proposed turbines are sited at a low elevation relative to the small hills and ridgelines surrounding the Wind Farm Site in all directions. Due to the screening provided by the landform surrounding the Wind Farm Site, theoretical visibility of the proposed turbines is very limited from large areas of the LVIA Study Area beyond 5 km. To the east of the Wind Farm Site, the landform rises to the South-Central Hills of Westmeath. These topographical features provide screening, resulting in large areas where the ZTV indicates no or very limited theoretical visibility of the proposed turbines beyond 5 km to the east of the Wind Farm Site. There will be full theoretical visibility of the proposed turbines upon the westerly slopes of the most westerly hills of the South-Central Hills of Westmeath, as well as isolated areas on peaks of the highest elevation.

The pattern of theoretical visibility to the south and west beyond 5 km of the proposed turbines is limited by Knockdorn peak and nearby hills, including the eastern shore of Lough Ree where there are large areas of no theoretical visibility. The ZTV indicates large intermittent patches of no theoretical visibility and large areas of limited theoretical visibility, particularly beyond 15 km from the Wind Farm Site. However, between 5 km and 15 km to the south and southeast there are areas of full theoretical visibility, as a result of the relatively flat topography in this direction. Beyond 5 km to the north there is slightly larger coverage of full theoretical visibility than is shown to the south and east. However, there are sporadic areas where the ZTV indicates no theoretical visibility, such as beyond the Hill of Forgney, approximately 7.3 km north of the nearest proposed turbine.

The ZTV and LVIA Study Area was extended to 25km to account for Clonmacnoise which is a heritage landscape of national renown, it is located approximately 23.4km south-east of the nearest proposed turbine. The ZTV shows some areas of full theoretical visibility and areas of no theoretical visibility around the monuments and landscape setting of the Clonmacnoise historic complex.

In general, the ZTV indicates that the siting of the proposed turbines on a plain of relatively low elevation and the topographical characteristics of the physical landscape surrounding the Wind Farm Site greatly reduces theoretical visibility of the proposed turbines from a large proportion of the LVIA Study Area.

12.3.3 ZTV Versus Actual Visibility

As mentioned previously, the ZTV map is a useful tool to indicate areas where there will be **no** visibility of the proposed turbines. In practice, vast areas of the LVIA Study Area which have an indication of full theoretical visibility by the ZTV map (Figure 12-1) are likely to have no visibility of the proposed turbines due to other screening factors existent within the landscape.

12.3.3.1 On-Site Appraisal of Actual Visibility During Field Surveys

Multiple field surveys were conducted during 2021 and 2022 to determine the actual visibility from locations where the ZTV has indicated full theoretical visibility. These surveys determined that screening from localised undulations in topography, vegetation and man-made elements significantly reduce the likelihood of viewing turbines in vast areas of the LVIA Study Area, in particular areas beyond 5 km from the Wind Farm Site.

In most instances, screening existent in the gently undulating and highly vegetated landscape beyond 5 km from the Wind Farm Site did not permit open views in the direction of the proposed turbines. Visibility is only likely to occur in isolated, elevated vantage points where open, long-ranging landscape views were found. Representative photomontages were captured from elevated locations where open views towards the proposed turbines were found. Visual effects arising from such locations are assessed in Section 12.7 - *Likely Significant Landscape and Visual Effects*.

The Physical landscape features map (Figure 12-2) shows the elevation gradients existent within the LVIA Study Area. The landscape of the LVIA Study Area is generally very flat, typical of the Irish midlands. On-site appraisals of visibility in the LVIA Study Area determined that long range views are very limited in this flat landscape, particularly when the viewer is at the same base elevation as the proposed turbines. The low base elevation of the turbines relative to the surrounding landscape causes a 'disproportionate screening effect' (see example/definition below), further reducing visibility of the proposed turbines in large areas of the LVIA Study Area where the ZTV indicates full visibility.

Disproportionate Screening Effects

Any landscape feature that blocks a view and prevents a clear onward view has a visual screening effect, whether it is a one-metre-tall wall, a two-metre-high roadside hedgerow, a five-metre-high building, or a 15-metre tall tree. As a full visual screen, such features only allow a person to see over

them, thereby pushing the person's line of sight higher into the sky rather than along the level of the ground.

The impact of screening elements such as vegetation (forestry, road-side hedgerows and trees) and buildings (particularly within towns and villages) on long range visibility are accentuated in flat lowland landscapes, this is called a disproportionate screening effect. The graphic in Figure 12-3 below best explains this 'disproportionate screening effect'. A ZTV may indicate full theoretical visibility of the proposed turbines from an open field or an open peatland. However, when a receptor is located at the same base elevation as a turbine, a feature such as a distant treeline has the capacity to greatly restrict or completely obscure visibility of the proposed wind turbine. Distance becomes a substantial factor determining visibility of proposed turbines as it is difficult to see beyond a few kilometres above screening within a flat landscape.

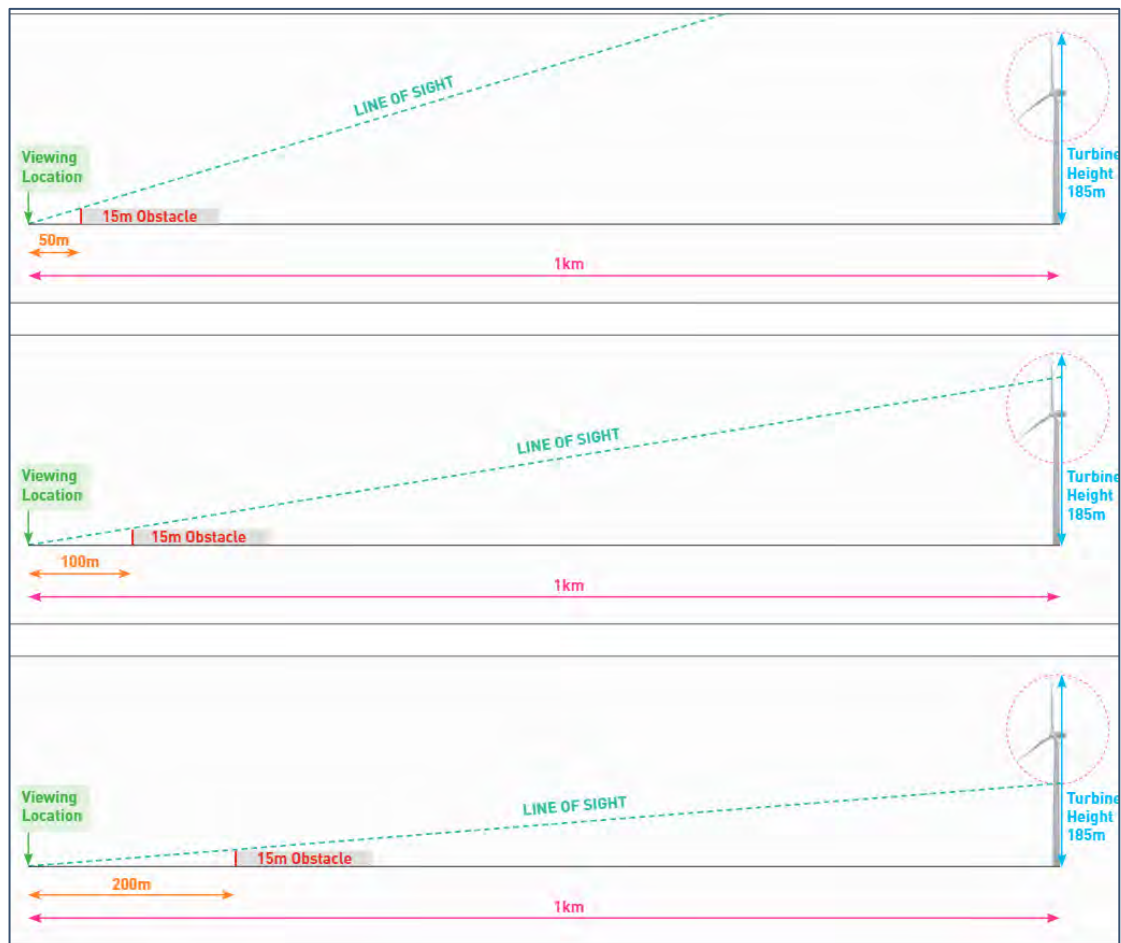


Figure 12-3 Disproportionate Screening Effect

The image above illustrates the disproportionate screening effect that small features in the landscape can have on screening a proposed wind turbine from view. Figure 12-3 shows a 185-metre-tall wind turbine located one kilometre from a viewing location. The illustration in Figure 12-3 is modelled proportionally to ensure measurement accuracy and scaled to fit this report. A 15-metre-tall obstacle, such as a treeline is used as the landscape feature giving rise to the screening effect. In the three examples shown, the 15-metre obstacle is shown at 50 metres, 100 metres and 200 metres from the viewing location, and the resultant line of sight is shown as a blue line running from the viewing location upwards over the top of the obstacle.

12.3.4

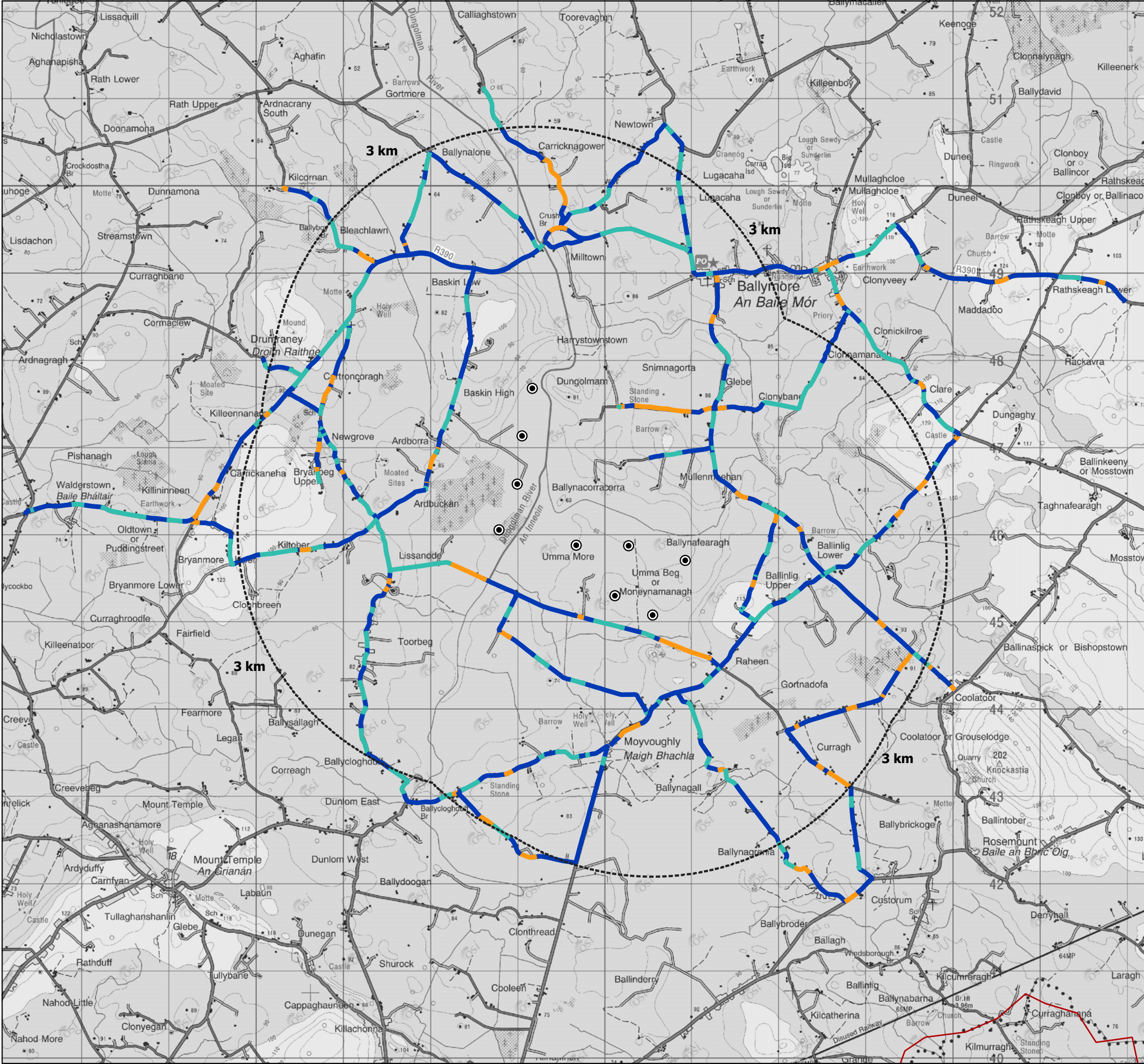
Visibility in Close Proximity to the Wind Farm Site – Route Screening Analysis

As presented later in this chapter, on-site visibility appraisals and photomontages indicate that most visibility and the most significant visual effects are likely to arise in close proximity to the Wind Farm Site. Visibility of the proposed turbines from areas in close proximity to the Wind Farm Site (< 3 km) is mitigated by screening from localised undulations in topography, and the vegetated nature of the landscape immediately surrounding the Wind Farm Site. In order to test this objectively, a method termed Route Screening Analysis (RSA) was conducted in April 2022 to comprehensively assess the varying characteristics of screening factors existent on roads surrounding the Wind Farm Site.

The RSA determined the actual likely visibility of the proposed turbines in comparison with theoretical visibility on all public roads within 3 km of the Wind Farm Site. The roads were surveyed using a methodology outlined in Section 1.3.3 of Appendix 12-1, one of three screening classifications were recorded as these roads were driven:

- No screening – unobstructed and open views, where views of the proposed turbines would be readily available (See Plate 12-1).
- Partial or Intermittent Screening - Partial or intermittent views of the proposed turbines would be available. Screening in the form of vegetation, local topography or built form will limit or restrict views of the proposed turbines but may not entirely prevent views. e.g., Light deciduous roadside vegetation (see Plate 12-2)
- Dense Screening - a location from which no view in the direction of the proposed turbines would be available, and from which the turbines will not be seen (See Plate 12-3). This is as a result of Very Dense vegetation or significant topographical screening (e.g., areas with no visibility on the ZTV).

The results of the route screening survey are mapped in Figure 12-4 below, this figure shows the extent at which each screening classification is present on all public roads within 3 km of the proposed turbines. Where roads continued beyond 3 km from the Wind Farm Site, the RSA survey continued to record the screening until an appropriate termination point or junction. Screening along the R390 Regional Road was recorded to a distance of 5 km as it is a relatively prominent transport route in the LVIA Study Area.



Map Legend

⦿ Proposed Turbines

Route Screening Analysis

- Class 1 - No / Very Little Screening
- Class 2 - Partial / Intermittent Screening
- Class 3 - Dense / Full Screening

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Drawing

Figure 12-4

Drawing

Route Screening Analysis

Project

Umma More Renewable Energy Development

Scale
1:42,500

Project
201050

Date
03.11.2022

Drawn By
SF

Checked By
JW





Plate 12-3 Example of class **'Dense Screening'**. The image shows how the landscape on either side of the road is fully screened from view by roadside vegetation

The route screening analysis determines the extent and density of screening present in the immediate vicinity of the Wind Farm Site. This allows the actual likely visibility of turbines to be considered and assessed in an objective and quantitative manner reducing the level of subjectivity involved in determining how visible the proposed turbines will be in the local landscape immediately around the Wind Farm Site. Table 12-1 below, shows the distribution of the screening classes on the 79.6km of public road surveyed within 3 km of the Wind Farm Site.

Table 12-1 Distribution of Screening Classes recorded (within 3km) during the Route Screening Analysis

Screening Class	Length of road mapped	Percentage Distribution of screening on the surveyed roads
Class 1 – No Screening	24km	30.15%
Class 2 – Partial/Intermittent Screening	46.5km	58.35%
Class 3 – Full/Dense Screening	9.1km	11.50%

'Intermittent Screening' was recorded for just over half (58.35%) of the surveyed roads and 'No Screening' was recorded for less than half (30.15%). Some form of roadside screening was existent across more than two thirds of all the roads surveyed, suggesting that visibility of the proposed turbines will be substantially mitigated by screening factors in many areas surrounding the Wind Farm Site. Actual visibility within 3 km of the Wind Farm Site is likely to be far less than is indicated by the ZTV mapping in Figure 12-1 which shows widespread theoretical visibility of all turbines in a majority of this area.

The route screening analysis assessed 17.5km of the R390 Regional Road where it is located within 5km of the proposed turbines. Only 29% of this road was shown to have no roadside screening (Class 1), therefore, there is limited locations where receptors travelling this route would have open and clear views in the direction of the Wind Farm Site. Multiple Photomontages and Photowires (early-stage photomontages) were captured from this route and produced from the areas where there is both theoretical visibility indicated by the ZTV and Class 1 - No screening recorded during the Route Screening Analysis.

An L-shaped network of weaving Local roads track through the undulating terrain of the immediate landscape surrounding the Wind Farm Site. The route screening analysis confirmed that visibility of the proposed turbines from most of this local road network is limited due to roadside screening, and road users will generally not have open views of the proposed turbines when travelling in this area, and the extent of visibility is likely to be far less than as indicated by the ZTV. The outcome of the Route Screening Analysis is discussed in relation to the assessment of visual effects on residential receptors in Section 12.7.3.2.3.

12.4

Landscape Baseline

The Landscape Baseline reports relevant policy pertinent to the LVIA, as well a description of the receiving landscape of the Proposed Development Site and its wider setting. This is broken down into the following sections:

- **Landscape Designations and Policy Context** - Policy setting pertaining to the location and nature of the Proposed Development Site from a landscape perspective based on:
 - Westmeath County Development Plan 2021-2027
 - Longford County Development Plan 2021-2027
 - Offaly County Development Plan 2021-2027
 - Roscommon County Development Plan 2022-2028
- **Landscape Character of the Proposed Development Site** – A description of the physical landscape and characteristics of the Wind Farm Site and its immediate setting, this includes the following considerations:
 - Landscape characteristics based upon findings from site visits conducted in 2021 and 2022.
 - An appraisal of landscape value and the susceptibility of the landscape to change, and a determination of landscape sensitivity
- **Landscape Characterisation in the Guideline for Planning Authorities** – A review of the Guidelines (DoEHLG, 2006) and siting guidance relating to the landscape characteristics of the Wind Farm Site.
- **Landscape Character of the Wider Landscape Setting**– A description of the wider landscape setting, including the identification of designated Landscape Character Areas (LCAs) located within 15 km of the proposed turbines and a preliminary analysis using ZTV mapping.

12.4.1

Landscape Designations and Policy Context

This sub-section reviews 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.

The Wind Farm Site is located in County Westmeath, therefore, the current Westmeath County Development Plan 2021-2027 (hereafter referred to as the WCDP) was consulted to identify landscape designations existent in the LVIA Study Area. Additionally, general landscape policy and landscape policy pertaining to wind energy development are also included in this section of the LVIA, providing context for the selection of the Wind Farm Site as a landscape suitable for a wind energy development.

As demonstrated by ZTV mapping (Figure 12-1), three other counties are located in the LVIA Study Area and comprise areas with theoretical visibility of the proposed turbines. Consequently, the county development plans of Counties Offaly, Longford, and Roscommon were also consulted to identify relevant landscape designations within the LVIA Study Area.

12.4.1.1 County Westmeath

12.4.1.1.1 Landscape Policies and Objectives

The WCDP sets out policies on landscape in *Chapter 13 Landscape and Lake Amenities*. The following policies and objectives deal with the Westmeath landscape generally:

“It is a policy of Westmeath County Council to:

***CPO 13.2** Protect the distinctiveness, value and sensitivity of County Westmeath’s landscapes and lakelands by recognising their capacity to sustainably integrate development.*

***CPO 13.4** Conserve and enhance the high nature conservation value of the Landscape Character Areas in order to create/protect ecologically resilient and varied landscapes.*

***CPO 13.6** Require that development is sensitively designed, so as to minimise its visual impact on the landscape, nature conservation, archaeology and groundwater quality.”*

As outlined previously in Section 12.1.4 above, the final Proposed Development design is the subject of an extensive iterative design process informed by early-stage impact assessment work including ZTV mapping and photomontage preparation. Therefore, in relation to policy *CPO 13.6*, every effort has been made to bring forward the optimum design for the Proposed Development with respect to minimising visual impact on the landscape.

The WCDP notes that Lakelands are important, prominent, and unique landscape features of Westmeath. Lough Ree, Lough Ennel and Lough Owel are located in the LVIA Study Area. Lough Ennel is located greater than 16 km east of the nearest proposed turbine and the ZTV map (Figure 12-1) indicates very limited theoretical visibility in the area surrounding the lake. At its nearest point, Lough Ree is located greater than 11km from the nearest proposed turbine. It is anticipated that there will be very limited visibility of the proposed turbines from the shores of Lough Ree, this is comprehensively assessed later in this chapter.

The western shore of Lough Owel is located approximately 22.5km north-east of the nearest proposed turbine. The ZTV indicates No theoretical visibility from the entirety of the lake, except for a small area of partial theoretical visibility on the eastern shore, in reality it is highly unlikely the proposed turbines will be visible from this location, and at a distance of approximately 24.6km no significant effects are likely to occur.

12.4.1.1.2 County Westmeath Landscape Character Areas

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* identifies and designates 11 distinct Landscape Character Areas (LCAs). This Landscape Character Assessment was undertaken for the 2008-2014 Westmeath County Development Plan and the resultant LCA designations are adopted in the current WCDP (2021-2027). As shown in Figure 12-5 below, the Wind Farm Site is located in County Westmeath LCA 7 - Western Lowlands.

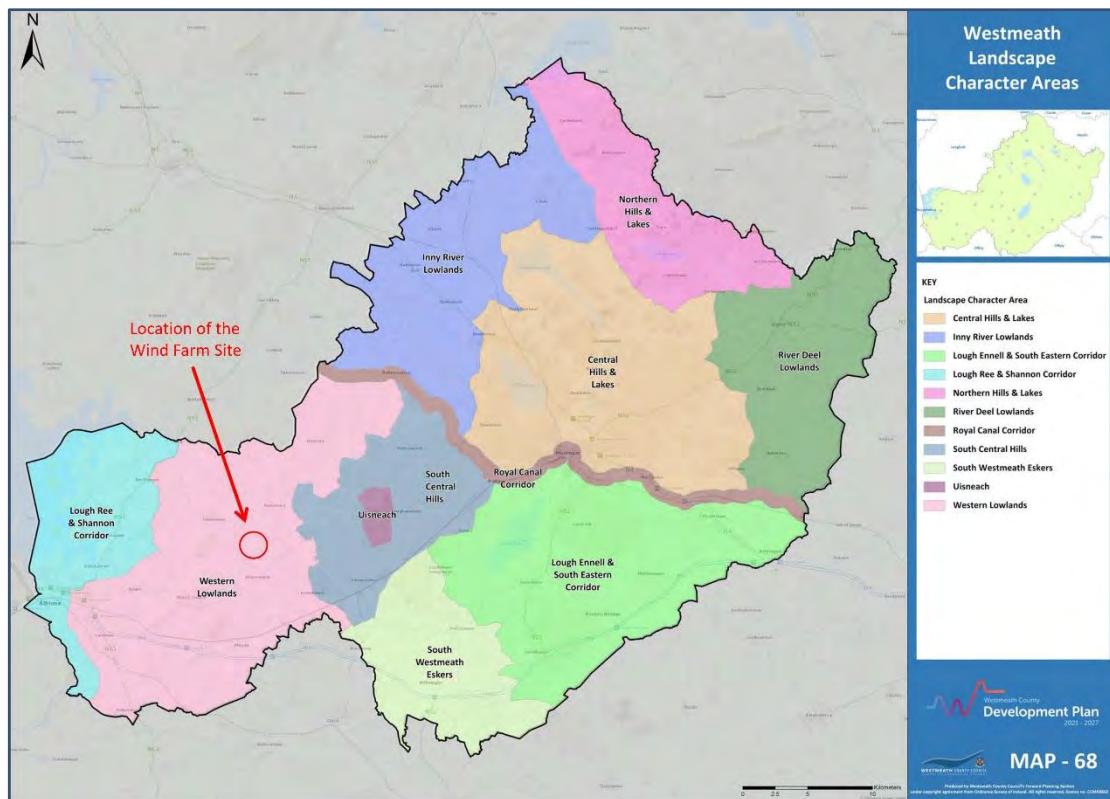


Figure 12-5 Co. Westmeath Landscape Character Areas (Extract from Westmeath County Development Plan 2021-2027)

The WCDP contains the following objectives related to the Landscape Character Areas.

“It is a policy objective of Westmeath County Council to:

CPO 13.8 *Protect the landscapes and natural environments of the County by ensuring that any new developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of their area. Any development which could unduly impact upon such landscapes will not be permitted.*

CPO 13.9 *Ensure the preservation of the uniqueness of a landscape character type by having regard to the character, value and sensitivity of a landscape in new development proposals.*

CPO 13.10 *Ensure development reflects and, where possible, reinforces the distinctiveness and sense of place of the landscape character types, including the retention of important features or characteristics, taking into account the various elements which contribute to their distinctiveness.*

CPO 13.12 *Require a Landscape and Visual Impact Assessment for proposed developments with the potential to impact on significant landscape features within the county.*

CPO 13.14 *Landscape Character Area 2: Explore the potential for funding to examine the feasibility of developing the River Inny basin as a biodiversity heritage area.*

CPO 13.15 *Landscape Character Area 5: Continue to work with Waterways Ireland to enhance and protect the visual corridor of the Royal Canal, by incorporating a visual buffer zone on each side of the bank of the canal*

CPO 13.16 *Landscape Character Area 6: Explore the feasibility of promoting Lough Ree and its islands as a model for a living Biodiversity Reserve.*

CPO 13.17 Minimise impact on the ecological, archaeological, biodiversity and visual amenity surrounding quarry sites and quarrying of sensitive sites within the Landscape Character Areas including the lake valley landscape, eskers and canal corridor.

CPO 13.18 Protect and enhance the setting of the Hill of Uisneach and support increased public access to the site. Only sensitive development that does not undermine the archaeological and cultural significance of the site will be permitted.

CPO 13.19:

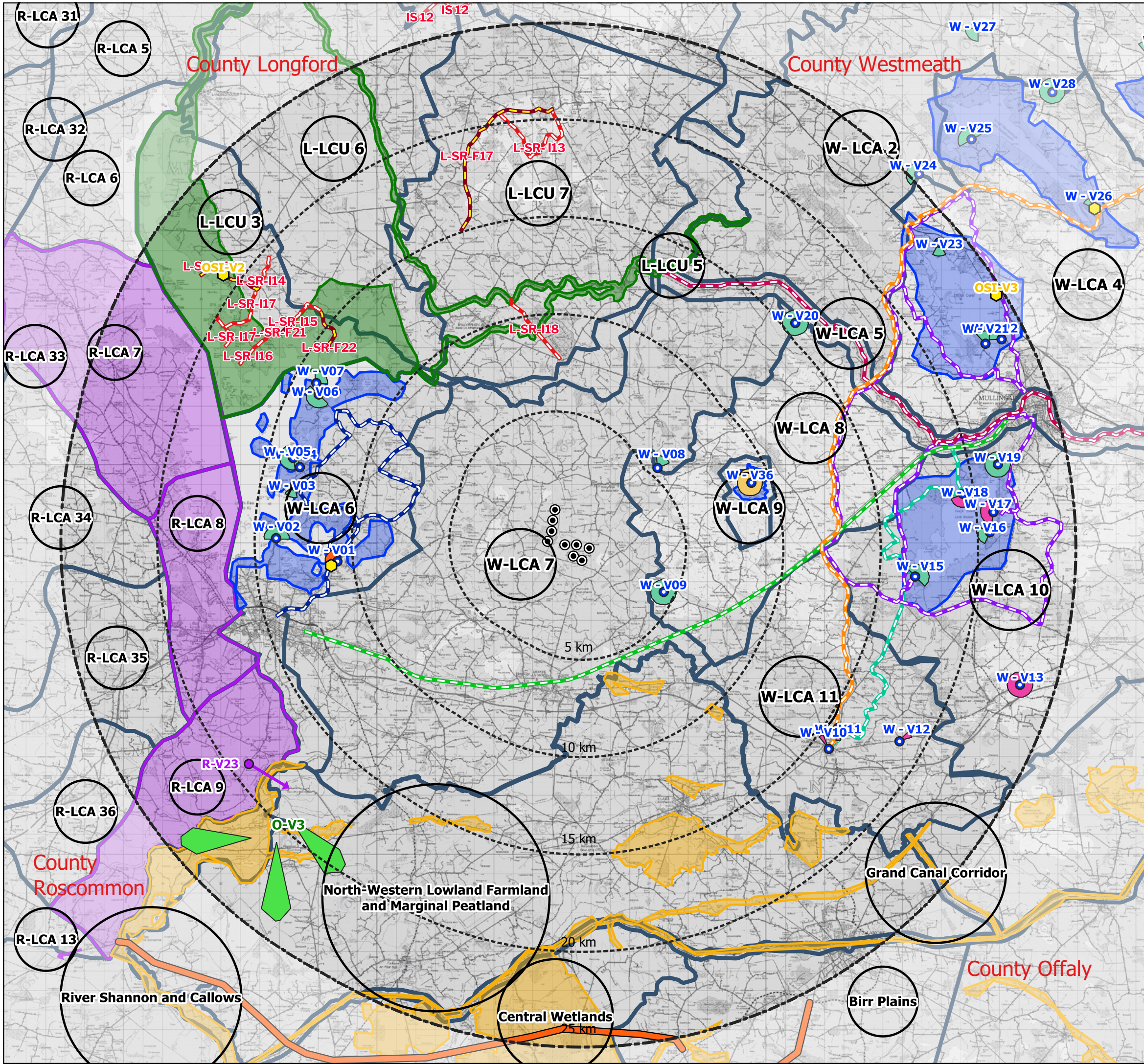
a. Protect and sustain the established appearance and character of views associated with the High Amenity Area around the Hill of Uisneach.

b. Require any development proposals within the High Amenity Area around the Hill of Uisneach to demonstrate that no adverse effects will occur on the established appearance or character of this feature as viewed from either the Protected Panoramic Views or from surrounding public roads.”

As shown in the *Landscape Policy Context Map* below (Figure 12-6), Eight County Westmeath LCAs (including LCA 7) are located within the LVIA Study Area for assessment of landscape character (15 km from the Wind Farm Site) these are listed below:

- Character Area 2 – Inny River Lowlands (Mapped as W-LCA 2 in Figure 12-6)
- Character Area 5 – Royal Canal Corridor (Mapped as W-LCA 5 in Figure 12-6)
- Character Area 6 – Lough Ree/Shannon Corridor (Mapped as W-LCA 6 in Figure 12-6)
- Character Area 7 – Western Lowlands (Mapped as W-LCA 7 in Figure 12-6)
- Character Area 8 – South Central Hills (Mapped as W-LCA 8 in Figure 12-6)
- Character Area 9 – Uisneach (Mapped as W-LCA 9 in Figure 12-6)
- Character Area 10 – Lough Ennell and South Eastern Corridor (Mapped as W-LCA 10 in Figure 12-6)
- Character Area 11 – South Westmeath Eskers (Mapped as W-LCA 11 in Figure 12-6)

A comprehensive description and assessment of LCA 7 and other LCAs screened in for assessment (see Section 12.4.3.2.1 below) in the wider landscape surrounding the Wind Farm Site (to 15km) is included in Appendix 12-2.



Map Legend

- Proposed Turbines
- LVIA Study Area
- County Landscape Character Areas

Landscape Designations

- Co. Westmeath Areas of High Amenity
- County Offaly Areas of High Amenity
- Co. Roscommon LCAs Designated as 'Very High Value'
- Co. Longford Broad Zones

Designated Scenic Amenity

Co. Westmeath Designated Scenic Routes

- Lough Ree Driving Route
- Mullingar Cycle Hub
- Old Rail Trail
- Royal Canal Way
- Tain Trail

- Co. Westmeath Protected View Origin

Co. Westmeath Protected Views: (Field of View and Significance Rating)

- Hill of Uisneach Panorama
- Regional
- County
- Local

Co. Longford Designated Views and Scenic Routes

- Full Views
- Intermittent Views
- Co. Offaly Protected Views
- Co. Roscommon Protected Views
- OSi Viewing Points

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Drawing No.

Figure 12-6


Drawing Title

Landscape Policy Context Map

Project Title

Umma More Renewable Energy Development

Scale 1:190,000	Project No. 201050	Date 03.11.2022	Drawn By SF	Checked By JW
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Planning and Environmental Consultants

12.4.1.1.3 Landscape Policy Pertaining to Wind Energy Development - WCDP

Section 10.23 of the WCDP refers to wind energy development in County Westmeath.

“CPO 10.142 - Have regard to the principles and planning guidance set out in Department of Housing, Planning and Local Government publications relating to ‘Wind Energy Development’ and the DCCAE Code of Practice for Wind Energy Development in Ireland and any other relevant guidance which may be issued in relation to sustainable energy provisions.”

“CPO 10.148 With regard to wind energy developments, to ensure that the potential for visual disturbance should be mitigated by applying an appropriate setback distance, which, where relevant, complies with available Ministerial Guidelines.”

The LVIA conducted in this chapter has been informed by and is following the guidance detailed in the Guidelines (DoEHLG, 2006), as well as being cognisant of the draft Guidelines (DoHPLG, 2019). This guidance is discussed below in Section 12.4.3 in relation to the character of the Wind Farm Site and design of the Proposed Development.

A *Wind Energy Capacity Map* (Map 69) is included in the WCDP (shown below in Figure 12-7), which assesses the capacity each Landscape Character Area has to accommodate Wind Energy Development. In the WCDP, all Westmeath LCAs are designated as ‘Low Capacity’, except for LCA 9 – Uisneach, which has ‘No Capacity’. There are **no** LCAs in the current WCDP which have a High or Medium Capacity for wind energy development.

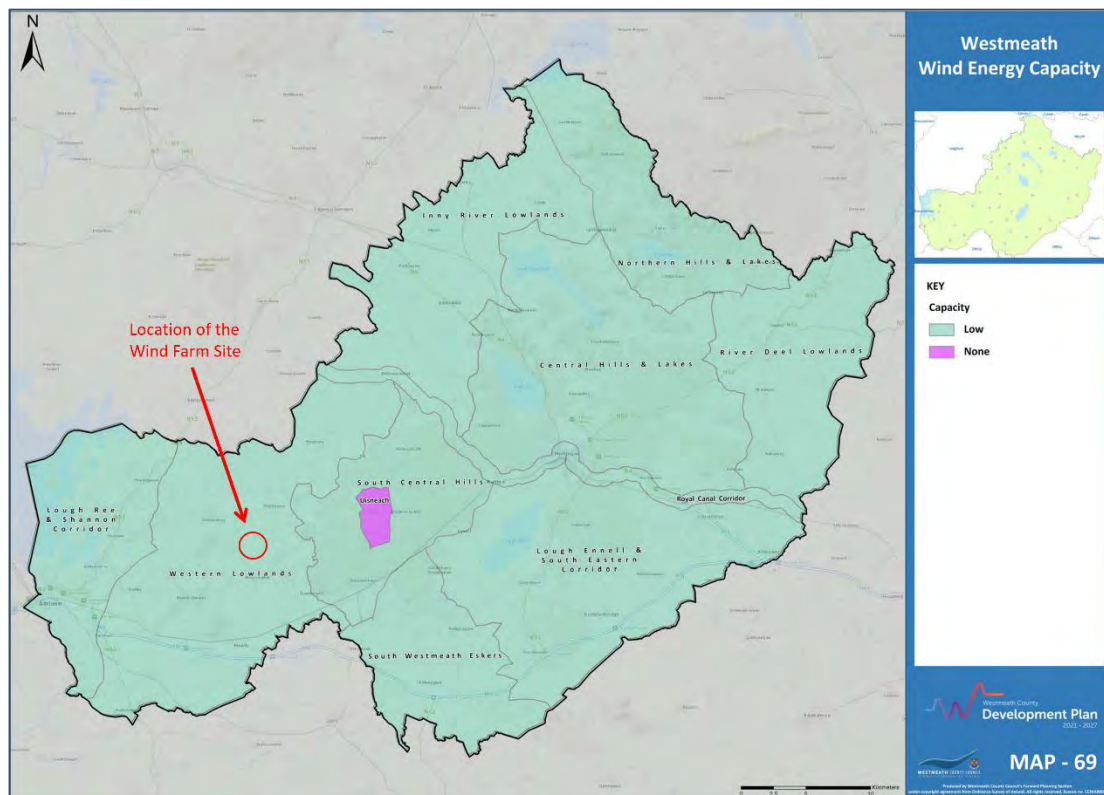


Figure 12-7 Westmeath Wind Energy Capacity Map - Westmeath County Development Plan 2021-2027. All areas of the county shown to have ‘Low’ Capacity for Wind energy, except for the Hill of Uisneach which has ‘none’.

The Western Lowlands LCA 7 (in which the Wind Farm Site is located) was previously designated as ‘Medium Capacity’ for wind energy development in the Westmeath County Development Plan (CDP)

(2014-2020) that was adopted on the 18th February 2014. As shown in Figure 12-8 below, LCA 7 was considered the only landscape character area with capacity for Wind Energy Development.

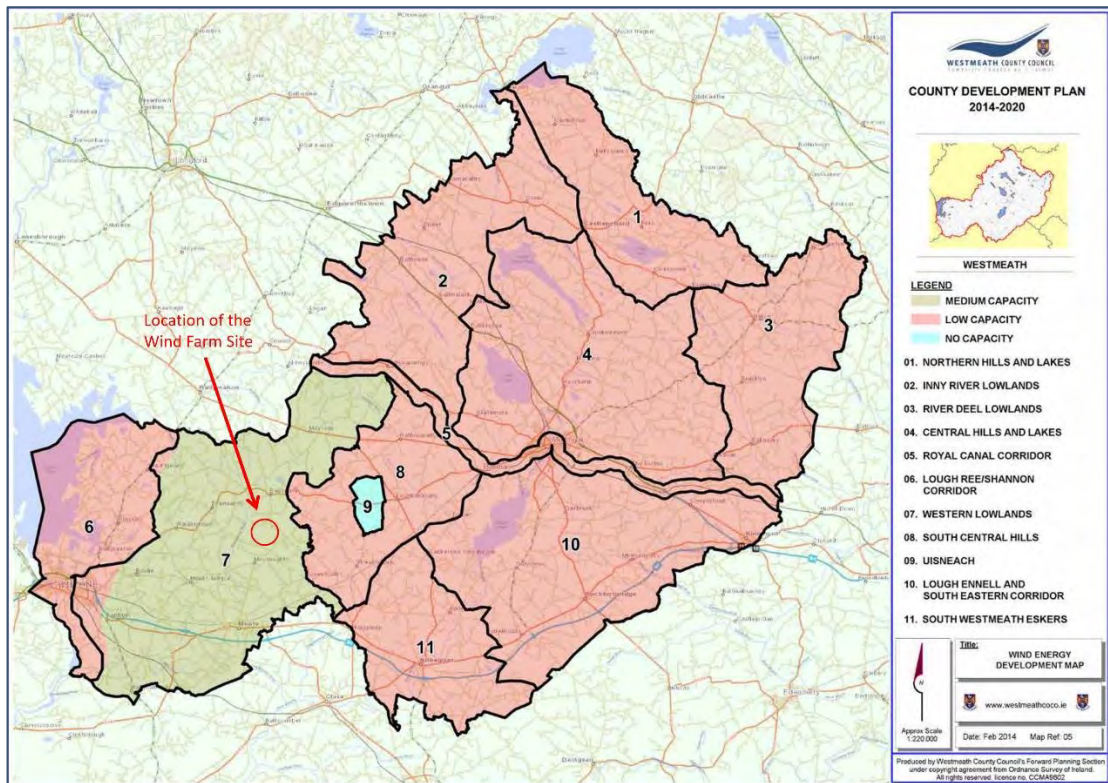


Figure 12-8 Westmeath Wind Energy Capacity Map - Westmeath County Development Plan 2014-2020. The location of the Wind Farm Site and the landscape of LCA 7 was previously designated as having the greatest (Medium) wind energy capacity in Co. Westmeath

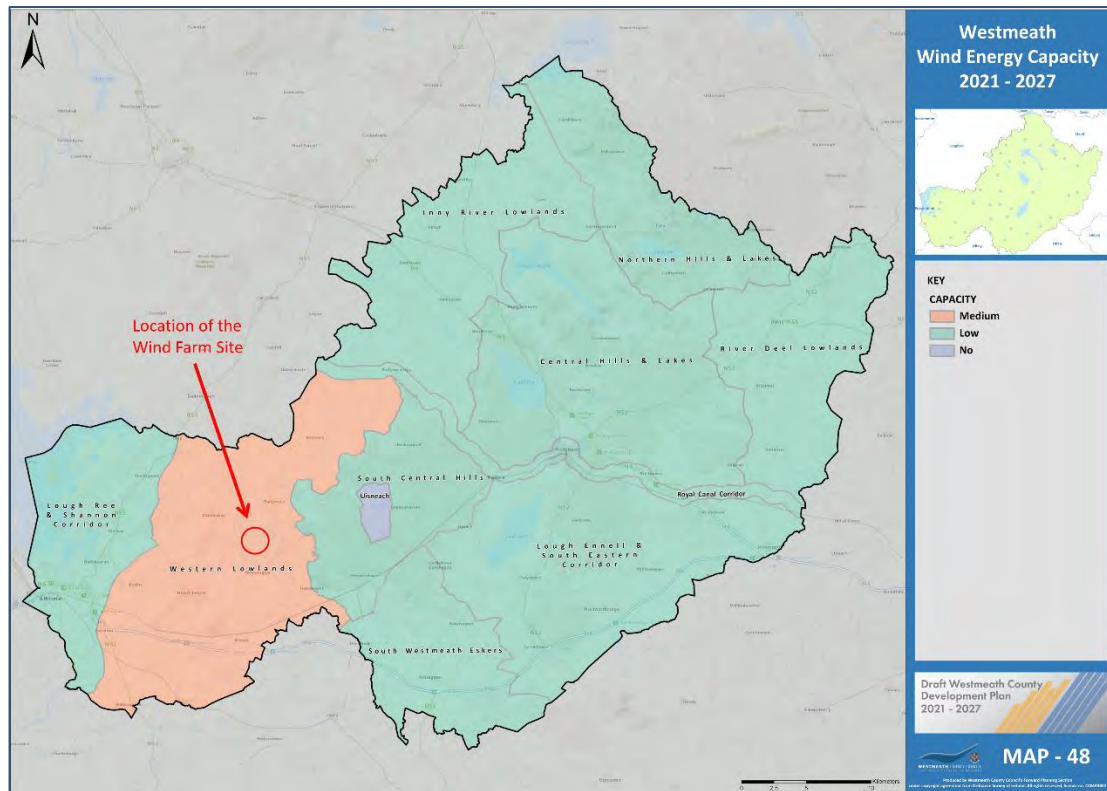


Figure 12-9 Westmeath Wind Energy Capacity Map - Draft Westmeath County Development Plan 2021-2027. The location of the Wind Farm Site and the landscape of LCA 7 was designated as having the greatest (Medium) wind energy capacity in Co. Westmeath

As shown in Figure 12-9, LCA 7 Western Lowlands was also designated as having ‘Medium’ Capacity for wind energy in the Draft Westmeath County Development Plan (CDP) (2021-2027).

In both the instance of the CDP (2014-2020) and the Draft CDP (2021-2027), this ‘Medium Capacity’ designation was changed to ‘Low Capacity’; by way of variation no. 1 to the CDP (2014-2020) on 23rd September 2016; as well as through the adoption of the current Westmeath County Development Plan (2021-2027). No rationale has been given for the change in wind energy capacity status of LCA 7 and the omission of LCAs with any Wind Energy Capacity higher than ‘Low’.

On the 16th April 2021, the Minister for Local Government and Planning issued a notice to Westmeath County Council pursuant to section 31AM(8) of the Planning and Development Act, as amended, on the basis that, having considered the Westmeath County Development Plan 2021-2027, the Office of the Planning Regulator is of the opinion that:

“...the Office [of the Planning Regulator] remains of the view that the inclusion of the policy objective CPO 10.132 (renumbered CPO 10.143) and an unchanged Wind Energy Capacity Map in the adopted Development Plan create a significant limitation or constraint on renewable energy projects which is inconsistent with the SPPR [Specific Planning Policy Requirements] and would also significantly restrict other policy objectives supporting wind energy development such as policies CPO 10.139, CPO 10.142 and CPO 10.144.”

The Office of the Planning Regulator advised Westmeath council to:

- i. Delete wind energy policy objective CPO 10.143 in its entirety from section 10.23.2 of the Development Plan.
- ii. Take such steps as are required to identify, on an evidence-basis and using appropriate and meaningful metrics, the wind energy production (in megawatts) which County Westmeath can contribute in delivering its share of overall Government targets on renewable energy and

climate change mitigation over the plan period, consistent with the requirements set out in the Specific Planning Policy Requirement in the Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change (July 2017).

Such steps shall be accompanied by revisions to the Wind Energy Capacity Map and Landscape Character Assessment, and coordination of the objectives for wind energy development in the Development Plan with those of the neighbouring counties as are necessary to ensure a coordinated approach with wind energy objectives of adjoining local authorities having regard to requirements of section 9(4) of the Act.

The consultation period in relation to the Draft Ministerial Direction, set out above, has now ended and the Chief Executive's Report on submissions dated 18th June 2021 was provided, recommending that Objective CPO10.143 be omitted from the County Development Plan and committing the council to carrying out an assessment of how the implementation of the plan will contribute to realising overall national targets and climate change mitigation.

12.4.1.1.4 County Westmeath Areas of High Amenity

The WCDP identifies five lake areas which are considered to have high amenity and recreational value, and include areas around the following: Lough Ree area, Lough Lene area, Lough Owel area, Lough Ennell area and Lough Derravaragh area. The Hill of Uisneach is also designated as an Area of High Amenity.

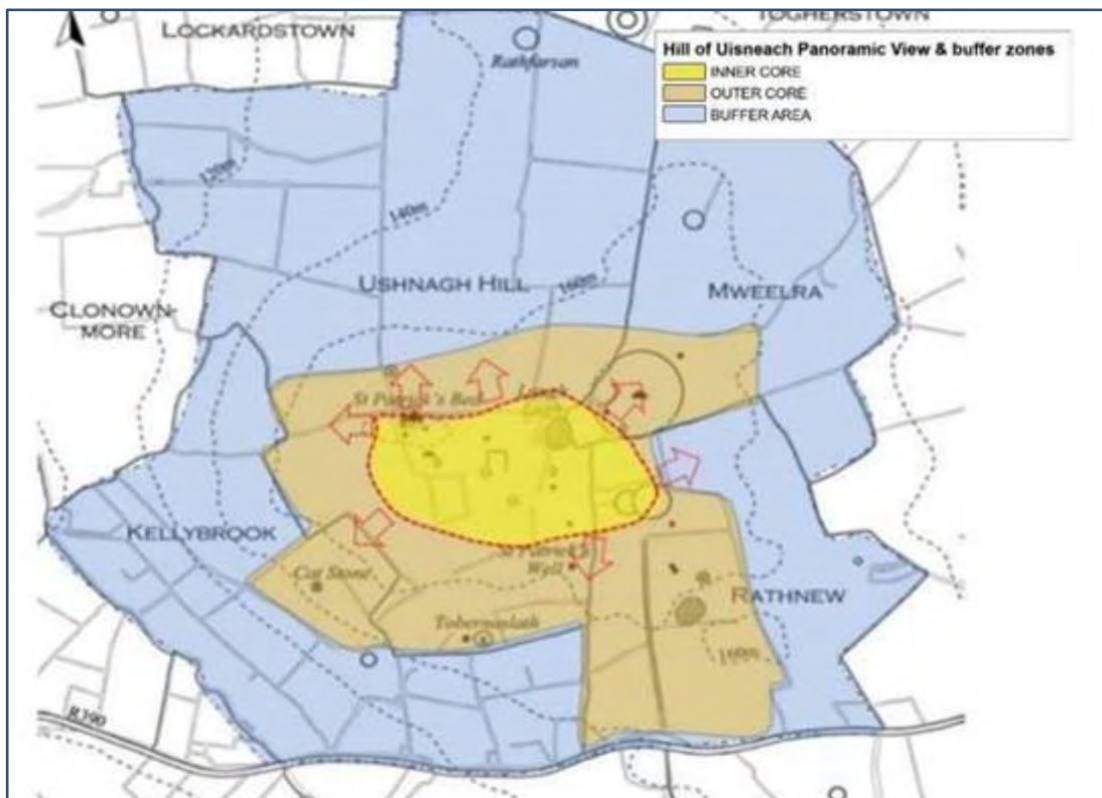


Figure 12-10 Hill of Uisneach panoramic view and visual buffer zones (map extract from the WCDP)

The Hill of Uisneach is described in Section 13.15 of the WCDP as “a nationally significant archaeological landscape”. It includes the area surrounding the Hill of Uisneach, which is in agricultural use, predominantly pastureland with species rich hedges acting as field boundaries. The WCDP stresses that a number of important monuments are present in the area. An additional focus is given in the WCDP to the “recognition of the exceptional archaeological and cultural significance of the Hill of Uisneach.” It further notes that the elevation of the Area “confers both panoramic views, as well as visual prominence, which ensures that the site and its immediate context is very sensitive to adverse

visual impacts". Figure 13.2 of the WCDP (and reproduced above in Figure 12-10), shows buffer zones around the hill where it is designated an Area of High Amenity. The red lines and arrows illustrated in Figure 12-10 (below) signifies the origin and direction of protected scenic views.

The WCDP contains a policy specifically related to the Hill of Uisneach LCA:

"It is a policy of Westmeath County Council to:

CPO 13.7 *Ensure that any significant, industrial and or infrastructural developments (excluding residential; agricultural buildings; tourism; greenway; cultural; educational or community buildings), which would impact upon Uisneach and or its protected views will not be permitted due to the sensitivity of the site."*

The Proposed Development is not located within the Hill of Uisneach LCA. The nearest proposed turbine is located approximately 8.8km west of the western cairn of the Hill of Uisneach. The likely impact of the Proposed Development on the Hill of Uisneach, its landscape setting and visual amenity from the hill itself is assessed later in this Chapter.

Section 10.23 of the WCDP notes that applications for wind energy developments located in Areas of High Amenity will not be encouraged. As shown in Figure 12-6 above, the Wind Farm Site is not located within an Area of High Amenity. Four Areas of High Amenity are located within the LVIA Study Area (25km):

- Lough Ree
- Lough Ennel
- Lough Owel
- Hill of Uisneach

The Lough Ree area is the closest and is located approximately 9.8 km northwest of the nearest proposed turbine (T1) at its closest point. The Hill of Uisneach area is the next closest Area of High Amenity and is located approximately 8km east of the nearest proposed turbine (T7) at its closest point. Areas of High Amenity surrounding Lough Ennel and Lough Owel are partially located within the LVIA Study Area to the east and north-east of the Wind Farm Site respectively.

12.4.1.1.5 **County Westmeath Views and Prospects**

Section 13.26 of the WCDP contains policies and objectives relating to County Westmeath designated Views and Prospects. In relation to Protected Views, the WCDP states that:

"It is a policy objective of Westmeath County Council to:

CPO 13.81 *Protect and sustain the established appearance and character of views listed in Appendix 5 of this plan that contribute to the distinctive quality of the landscape from inappropriate development."*

The WCDP designates 36 protected views and categorises them according to their significance (Local, County, Regional, National). These views are listed, mapped and described in *Appendix 5* of the WCDP. All designated views and scenic routes that are both listed in Appendix 5 of the WCDP and are also located in the LVIA Study Area (within 25km for visual receptors) are listed below in Table 12-2. The location of these designations and the focus of their view in relation to the proposed turbines is illustrated in Figure 12-6 above – *Landscape Policy Context Map*.

**For purposes of clarity, continuity and reference to mapping figures in this chapter; designated scenic views are labelled 'V' and scenic routes 'SR', each is prefixed by the first letter of the county in which it is located e.g., 'W' for Westmeath and 'L' for Longford. The last number in each label corresponds to*

the label or number assigned to each designation in the respective county development plans (e.g., R-V9 = Roscommon - Designated Scenic View No. 9).

Table 12-2 County Westmeath Designated Views and Prospects, and designated scenic routes

View No.	View Description (Appendix 5, Westmeath County Development Plan 2021-2027)	Significance	Figure 12-6 Map Ref.
1	This is a panoramic view of Lough Ree and the surrounding landscape from the car parking areas on the N55 Road between Ballykeeran and Glasson.	Regional	W-V1
2	Views of Lough Ree from Coosan waterfront from pier, slipway and forest walk trail. The focus of this view is Lough Ree to the north. Hare Island is an important feature of this view.	Local	W-V2
3	Views of Lough Ree from Carnakill pier and Portlick Forest Walk from pier and forest walking trail. The focus of this view is Lough Ree to the south-west.	Local	W-V3
4	View of Lough Ree from Portlick Scout Campsite from short stretch of road along lake shore. The focus of this view is Lough Ree to the west	Local	W-V4
5	View of Lough Ree from small pier at lake shore. The focus of this view is Lough Ree to the west.	Local	W-V5
6	View of Lough Ree and reed beds from road and pier from local road and pier. This view should be considered to begin from the local road after it turns off to Lough Ree House and ends at the water edge. The focus of this view is Lough Ree to the north and the shallow, reed filled water immediately adjacent.	Local	W-V6
7	View of Lough Ree from Lough Ree House marina from picnic area and marina. The focus of this view is Lough Ree to the north.	Local	W-V7
8	<p>Panoramic views over countryside to the north off Ballymore-Mullingar Road from Local Road L5342.</p> <p>This is a panoramic view of the landscape around Ballymore to the West and North and captures small glimpses of Lough Sewdy.</p> <p>From the local road L5342. This view should be considered to begin from the point where the road begins to descend, ending when it enters Ballymore</p>	Local	W-V8
9	Panoramic views from Knockastia Hill, Coolatoor from the local road that rings the Knockastia Hill. This is a series of views from the roads which circle Knockastia Hill. The roads are at a higher elevation than the surrounding landscape. There are many points where there are low	Local	W-V9

View No.	View Description (Appendix 5, Westmeath County Development Plan 2021-2027)	Significance	Figure 12-6 Map Ref.
	hedges that provide panoramic views of the surrounding landscape from the road.		
10	View of the south-east face of Kilbeggan Distillery from bridge over the River Brosna on Regional Road R446.	County	W-V10
11	View of the south-east face of Kilbeggan Distillery from bridge over the River Brosna on Regional Road R446.	Local	W-V11
12	View of Long Hill Esker from south of the R446 Regional Road. The focus of this view is the wooded hill of Long Hill Esker to the north-east. This view should be considered to being at junction of local road and R446 at Derrylusk and end at the base of Long Hill Esker.	County	W-V12
13	Panoramic views from Garrane Hill on the Regional Road R-446. This is a panoramic view of the surrounding landscape from the highest point on the R446 road when looking down the roads to the NE and SW.	County	W-V13
15	View of Lough Ennell from Lilliput Pitch and Putt from pier at lake shore. The focus of this view is Lough Ennell to the northeast	Local	W-V15
16	Views of Lough Ennell along coast beside Lough Ennell Caravan Park From picnic walkway by lake shore. The focus of this view is Lough Ennell to the west. The lough's wooded shores form the background and are an important feature of the view.	Local	W-V16
17	View of Lough Ennell from Belvedere House gardens from picnic walkway by lake shore. The focus of this view is Lough Ennell to the north. The lough's wooded shores form the background and are an important feature of the view.	County	W-V17
18	View of Lough Ennell from carpark from the parking area by lake shore. The focus of this view is Lough Ennell to the south.	County	W-V18
19	Scenic route through forest and woodlands from Butler's Bridge/Kilpatrick Bridge, Local Road L-1137. View from the bridge on the local road L-1137 and end at the shore of Lough Ennell. This is a scenic route through a forest trail. The trail is edged by mature trees and follows a stream which enters Lough Ennell. At the end of the trail (though not surfaced) is a wide clear view of Lough Ennell from the shore. From a scenic trail. This view should be considered to begin at the bridge on the local road L-1137 and end at the shore of Lough Ennell.	Local	W-V19
21	View of Lough Owel by Pitch and Putt from picnic walkway by lake shore. The focus of this view is Lough Owel to the	Local	W-V21

View No.	View Description (Appendix 5, Westmeath County Development Plan 2021-2027)	Significance	Figure 12-6 Map Ref.
	north. The lough's wooded shores form the background and are an important feature of the view.		
22	View of Lough Owel from Mullingar Sailing Club from lake shore and parking area. The focus of this view is Lough Owel to the northwest. The lough's wooded shores form the background and are an important feature of the view.	Local	W-V22
23	View of Lough Owel from Local Road L-5818. The focus of this view are glimpses of Lough Owel set among low hills.	Local	W-V23
36	Panoramic view of surrounding countryside from atop the Hill of Uisneach. View from point on site trail, by St Patrick's Bed. A panoramic view from the top of the Hill of Uisneach. The hill's rugged terrain makes up much of the view foreground. Beyond, the view is the surrounding working landscapes. Views facing North provide the greatest extent of visible landscape.	National	W-V36

Section 13.26 of the WCDP identifies seven designated scenic routes which are mapped in *Appendix 5* of the WCDP. Six of these routes are located within the LVIA Study Area, they are listed below and mapped in Figure 12-6:

- Lough Ree Driving Route
- Mullingar Cycling Hub
- The Táin Trail
- Old Rail Trail/ Greenway
- Royal Canal Way
- Westmeath Way

As the scenic amenity designations listed above and in Table 12-2 (above) are of a visual nature, they are comprehensively addressed in Section 12.5 of this Chapter – *Visual Baseline*, where ZTV mapping and on-site appraisals determine the likely visibility of the proposed turbines within these scenic views.

12.4.1.2 Landscape Policy within the Other Surrounding Counties

While the Wind Farm Site is located in Co. Westmeath; Counties Longford, Offaly and Roscommon are located within the LVIA Study Area, and a portion of the proposed Grid Connection is in County Offaly. As indicated by ZTV mapping (See Section 12.3 previously), there is some theoretical visibility of the proposed turbines in every county in the LVIA Study Area. Therefore, relevant designations pertinent to the landscape and visual impact assessment conducted in this chapter are identified and listed below from the following County Development Plans:

- Offaly County Development Plan 2021-2027 (Offaly County Council)
- Longford County Development Plan 2021-2027 (Longford County Council)
- Roscommon County Development Plan 2022-2028 (Roscommon County Council)

12.4.1.2.1 **Landscape Character Areas – Other Counties in the LVIA Study Area (Co. Longford Only)**

County Roscommon is located beyond 15 km from the Wind Farm Site and beyond the Study Area for assessment of landscape character. Therefore, LCAs located in County Roscommon are not included in this assessment.

A landscape character assessment has not yet been conducted or published for County Offaly. Consequently, County Offaly does not have any designated LCAs. Therefore, MKO has prepared an Interim (undesignated) Landscape Character Area for the area of County Offaly located within the LVIA Study Area (15 km from the Wind Farm Site for assessment of Landscape Character). This Interim LCA has been given the name ‘North-Western Lowland Farmland and Marginal Peatland’ and it has been comprehensively described and assessed in Appendix 12-2 – *LCA Assessment Tables*. The description and sensitivity of this Interim LCA has been derived from site visits, desk studies and assessments conducted by the MKO Landscape & Visual team (as well as being used previously for the landscape and visual assessments included for the permitted Derrinlough Wind Farm, ABP-306706-20). Sensitive landscape receptors located within County Offaly are identified later in this section and form part of this LVIA. A portion of the proposed Grid Connection is located in County Offaly, but the underground electrical cabling and connection infrastructure is not located in any designated LCA (as Offaly has no designated LCAs), the landscape character of the route is described Section 12.4.2 – *Landscape Character of the Proposed Development Site*.

The Longford County Landscape Character Assessment (LCLCA) is contained in Chapter 14 of the Longford County Development Plan 2021-2027. 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. Four Longford Landscape Character Units are located within 15 km of the Wind Farm Site. These are illustrated in Figure 12-6 previously and are listed below.

- LD LCU 3 – Shannon Basin/Lough Ree (Mapped as L-LCU 3 in Figure 12-6)
- LD LCU 5 – Inny Basin (Mapped as L-LCU 5 in Figure 12-6)
- LD LCU 6 – Peatlands (Mapped as L-LCU 6 in Figure 12-6)
- LD LCU 7 – Open Agricultural (Mapped as L-LCU 7 in Figure 12-6)

12.4.1.2.2 **Sensitive Landscape Designations – Other Counties in the LVIA Study Area (Longford, Offaly and Roscommon)**

Counties Longford, Offaly and Roscommon designate sensitive landscape receptors. Each county has differing naming conventions, sensitivity classifications and policy objectives pertaining to their respective landscape designations (see policies CPO14.1, CPO14.2, CPO14.3, CPO14.4, CPO14.5). In a general sense, it is a policy objective for each county to take additional care in the protection of the unique, valuable and sensitive landscapes which fall within the following designations:

- The Longford County Development Plan 2012-2027 (LCDP) designates ‘Broad Zones’ in the areas surrounding lakes, rivers, canals, and deciduous woodlands where inappropriate development will be prevented. The Broad Zones are mapped in *Appendix 7* of the LCDP.
- The 2021-2027 Offaly County Development Plan (OCDP) classifies ‘Areas of High Amenity’ as areas with scenic and amenity value worthy of special protection. Thirteen are listed and shown on *Figure 4.18* of the OCDP.
- The Roscommon County Development Plan (RCDP 2022-2028) does not have an explicit designation of sensitive landscape receptors, instead, it attributes value classifications to its designated LCAs (*Exceptional Value, Very High Value, High Value and Moderate*

Value). Special care is given to prevent inappropriate development in the highly sensitive landscape character areas designated as having 'Exceptional' value.

Designated landscape receptors are mapped in the landscape policy context map (Figure 12-6) previously and listed in Table 12-3 below. No Roscommon LCAs of 'Exceptional Value' were identified in the LVIA Study Area.

Table 12-3 Designated High Sensitivity Landscape Receptors in the LVIA Study Area located in County Longford and County Offaly.

Sensitive Landscape Receptor Designation	Distance and Direction from the nearest proposed turbine
County Longford – Broad Zones	
Eastern Banks of Lough Ree	11.2 km north-west
River Inny	9 km north-west
Royal Canal	10.8 km north
County Offaly – Areas of High Amenity	
Clara Eskers	11.8 km south
Clara Bog	13.5 km south
Other Eskers	6 km south (nearest esker)
Grand Canal	18.3 km south
Eiscir Riada	18.4 km south
Clonmacnoise Heritage Zone*	16.9 km south-west
Durrow Monastic Site and Demesne	17 km south-east

**The Clonmacnoise Monastic Site is located 23.4km from the nearest proposed turbine.*

A preliminary assessment was conducted using ZTV mapping to determine likely visibility of the proposed turbines from these sensitive landscape receptors as well as the High Amenity areas identified in County Westmeath previously. Sensitive landscape receptors screened in for further assessment were then considered for the selection of photomontage viewpoints.

12.4.1.2.3 Designated Scenic Amenity – Other Counties in the LVIA Study Area (Longford, Offaly and Roscommon)

Counties Longford, Offaly and Roscommon protect scenic amenity within their respective counties through the designation of scenic views, prospects and scenic routes. Each county has differing naming conventions and policy objectives pertaining to their respective designations. In a general sense, it is a policy objective for each county to take additional care in the protection of the unique and valuable scenic views which fall within the following designations:

- County Longford – Views and Prospects (Scenic Routes). Though described as views and prospects, the LCDP designates parts of roads as views/prospects, these scenic routes are either designated as having Full views (F) or Intermittent views (I).
- County Offaly – Scenic Views and Scenic Routes (Key Amenity Routes).
- County Roscommon – Viewpoints and Scenic Routes.

Designated scenic amenity and views from these counties are mapped in the Landscape Policy Context map (Figure 12-6) previously and listed in Table 12-4 below.

**For purposes of clarity, continuity and reference to mapping figures in this chapter; designated scenic views are labelled 'V' and scenic routes 'SR', each is prefixed by the first letter of the county in which it is located e.g., 'W' for Westmeath and 'L' for Longford. The last number in each label corresponds to the label or number assigned to each designation in the respective county development plans (e.g., R-V9 = Roscommon - Designated Scenic View No. 9).*

Table 12-4 Designated Scenic Amenity of County Longford, Offaly and Roscommon within the LVIA Study Area

Dev Plan Ref No.	Designated Scenic Amenity Name / Description	Figure 12-6 Map Ref.
County Longford – Views Prospects and Scenic Routes (F-Full Views; I – Intermittent Views)		
F.S.17	Drumming, Cartrongarrow, Lisduff (Montgomery), Bawn Mountain, Barroe, Castlerea Mountain, Castlerea, Keeloge, Commock, Curraghmore, Abbeyderg, Loughan, Glenmore (Moydow By), Lislea (Moydow By), Cartronbrack.	L-SR-F17
F.S.20	Cashel, Loughfarm, Elfeet (Adamson), Leab, Carrowbeg.	L-SR-F20
F.S.21	Tipper (Rathcline By), Corrool (Kenny), Corrool (Fox).	L-SR-F21
F.S.22	Drumnee, Saints Island.	L-SR-F22
I.S.13	Drumming, Ballycloghan, Aghnasillagh, Garrycam, Keel(Moydow By), Castlerea Mountain, Bawn Mountain.	L-SR-I13
I.S.14	Cornadowagh, Ballyrevagh, Carrowbeg.	L-SR-I14
I.S.15	Drumnee, Claras, Corrool (Fox).	L-SR-I15
I.S.16	Portanure, Lismagawley, Pollagh	L-SR-I16
I.S.17	Collum, Derrydarragh, Carrowrory, Ballagh (Rathcline By)	L-SR-I17
I.S.18	Forgeny, Newcastle, Clooncallow, Cloonkeen (Rathcline By).	L-SR-I18
County Offaly – Scenic Views and Key Amenity Routes		
V03	Pilgrims Road (L-07013) in the townlands of Clonmacnoise, Clonascra, Ballyduff and Bloom Hill. - Panoramic – North, South and West Clonmacnoise and River Shannon, Eskers, Mongan Bog and Finlough.	O - V3
County Roscommon – Protected View		
V23	View from third class road across the Shannon callows.	R-V23

As the scenic amenity designations listed in Table 12-4 (above) are of a visual nature, they are comprehensively addressed in Section 12.5 of this Chapter – Visual Baseline, where ZTV mapping and on-site appraisals determine the likely visibility of the proposed turbines within these scenic views or from scenic routes.

12.4.2 Landscape Character of the Proposed Development Site

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 Landscape and Landscape Assessment Guidelines (DoEHLG, 2000) comprises the identification of primarily physical units (areas defined by landform and landcover) and, where appropriate, of visual units.

The Proposed Development site was visited multiple times during 2021 and 2022 where an assessment of topography, drainage, landcover and land use was conducted in conjunction with other LVIA surveys. Information gathered during these visits has informed the following descriptions of the Wind Farm Site. The landscape character of the Grid Connection is discussed at the end of this section.

Landform and Drainage

The Wind Farm Site is located in a small river valley of undulating agricultural land. The Dungolman River is a small stream which traverses the Wind Farm Site in a north-south orientation. It flows through the Wind Farm Site in a northerly direction to the Tang River before joining the Inny River which discharges into Lough Ree to the north-west. A small tributary of the Dungolman flows westerly along the north-east of the EIAR Site Boundary. As shown below in Figure 12-11, the proposed turbines are sited in the flat plain around the Dungolman and its tributary. Landform slopes up away from the flat plains adjacent to the watercourses, forming the small valley where the proposed infrastructure of the Wind Farm Site is sited.



Plate 12-4 The Dungolman River as it enters the EIAR Site Boundary from the south.