12 LANDSCAPE AND VISUAL AMENITY

12.1 INTRODUCTION

12.1.1 Background and Objectives

This chapter of the EIAR presents the Landscape and Visual Impact Assessment (LVIA), which assesses the direct and indirect effects of the Project on the landscape and visual amenity of the receiving environment. Where significant effects are predicted, the chapter identifies appropriate mitigation strategies therein. The assessment will consider the potential effects during the following phases of the Project:

- Construction of the Project
- Operation of the Project
- Decommissioning of the Project (final phase)

The Project refers to all elements of the application for the construction and operation and decommissioning of the proposed Carrigeen Renewable Energy Development (see **Chapter 2: Project Description**).

This chapter of the EIAR is supported by the following:

- **Volume III**: LVIA Figures;
- **Volume IV**: Appendix 12.1: Visual Impact Assessments at VRPs;
- **Volume V:** Photomontages.

Although closely linked, landscape and visual effects are assessed separately:

Landscape Impact Assessment (LIA) relates to changes in the physical landscape brought about by the Project, which may alter its character, and how this is experienced. This requires a detailed analysis of the individual elements and characteristics of a landscape that go together to make up the overall landscape character of that area. By understanding the aspects that contribute to landscape character, it is possible to make judgements in relation to its quality (integrity) and to identify key sensitivities. This, in turn, provides a measure of the ability of the landscape in question to accommodate the type and scale of change associated with the Project without causing unacceptable adverse changes to its character.

Visual Impact Assessment (VIA) relates to assessing effects on specific views and the general visual amenity experienced by people. This deals with how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape

and/or introduction of new elements. Visual impacts may occur from visual obstruction (blocking of a view, be it full, partial or intermittent) or Visual Intrusion (interruption of a view without blocking).

Cumulative landscape and visual impact assessment is concerned with additional changes to the landscape or visual amenity caused by the Project in conjunction with other developments (associated or separate from it).

12.1.2 Assessment Structure

In accordance with the Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment – Third Edition (2013) (GLVIA3), the structure of this chapter will consist of separate considerations of landscape effects and visual effects in the following order:

- Assessment of landscape value and sensitivity;
- Assessment of the magnitude of landscape change;
- Assessment of the level (significance) of landscape effects;
- Assessment of visual receptor sensitivity;
- Assessment of the magnitude of visual change;
- Assessment of the level (significance) of visual effects;
- Assessment of cumulative landscape and visual effects.

GLVIA3 outlines the differences between 'impact' and 'effect' in regard to undertaking LVIA as follows:

"The process is generally known as impact assessment, but the European Union Directive refers to the assessment of the effects, which are changes arising from the development that is being assessed. This guidance generally distinguishes between the 'impact', defined as the action being taken, and the 'effect', defined as the change resulting from that action"

This LVIA adopts the GLVIA3 terminology, arriving at a judgement regarding the level (significance) of a landscape or visual effect, before arriving at a conclusion as to whether it is deemed 'Significant'.

12.1.3 Statement of Authority

This LVIA was prepared by Mark Salisbury, Associate Director and Landscape Architect at Macro Works Ltd (part of APEM Group), in Cherrywood, Dublin. Mark is a Chartered Landscape Architect with the Landscape Institute (UK) and has over 15 years of experience preparing LVIA reports for a broad range of development types, including numerous wind farm projects such as that proposed.

Macro Works is a specialist LVIA consultancy with over 20 years of experience in the appraisal of effects from a variety of energy, infrastructure and commercial developments. Macro Works' relevant experience includes LVIA work on over 140 on-shore wind farm proposals throughout Ireland, including Strategic Infrastructure Development (SID) wind farms. Macro Works and its senior staff members are affiliated with the Irish Landscape Institute.

The LVIA has been reviewed by Richard Barker, Divisional Director in Macro Works, and Landscape Architect affiliated with the Irish Landscape Institute. Richard has undertaken LVIA work for over 90 wind farms amongst numerous other development projects in Ireland and has considerable oral hearing training and expert witness experience.

12.1.4 Description of the Project

A full description of the Project to which this chapter and the identified effects relate is provided in **Chapter 2: Project Description**. However, it is noted that 10-year planning permission (and 35-year operational life from the date of commissioning) is being sought by the Developer for 11 No. Wind Turbines, Turbine Foundations, Turbine Hardstands, Site Access Roads, a Permanent Met Mast, Onsite Substation, Internal Cabling, Temporary Construction Compounds, Borrow Pit, Permanent Spoil Storage, Grid Connection and all ancillary and associated works.

As proposed, the turbines would have a rotor diameter of 163m, a hub height of 103.5m and a tip height of 185m, and have a matt non-reflective finish in a white, off-white or grey colour. The permanent meteorological mast would be a free-standing lattice type structure, with a height of 30m.

The Onsite Substation and Grid Connection will be under the ownership of ESB Networks and will form a permanent part of the national grid infrastructure, which will not be decommissioned with the wind farm at the end of its operational life.

The site would be accessed via 5 No. site entrances, comprising a mix of new and existing entrances. The internal road infrastructure to facilitate the construction, operation and decommissioning of the Project follows existing commercial forestry access tracks as far as possible, with effort made to minimise the length of track necessary.

The development will also incorporate an internal site drainage network, sediment control systems, internal underground electrical and communications cabling, and associated site

development works including the storage of arisings (e.g. soils), and biodiversity enhancement measures.

Turbines would be delivered to site via a preferred Turbine Delivery Route (TDR) from Galway Port.

The Grid Connection to connect the Onsite Substation to the proposed point of connection at Flagford 220kV substation is approximately 17.5km and located primarily within the public road corridor.

12.1.4.1 Construction Phase

The construction phase will include all site preparation works required to incorporate the proposed turbines, and associated infrastructure, as well as a Temporary Construction Compound, borrow pits and temporary hardstanding areas. This will include groundworks associated with foundations and underground cables, the associated stockpiling, and landscape works.

The construction phase will include works associated with the Turbine Delivery Route (TDR), which will involve temporary widening works to accommodate the delivery of the turbine components and HGV vehicles.

The development would necessitate the removal of commercial forestry to accommodate the development, albeit this would be kept to a minimum.

As per the construction programme outlined in **Chapter 2: Project Description**, construction-related activity will be short-term in nature (in accordance with the EPA definition of impact duration) and will cease once the development becomes fully operational.

12.1.4.2 Reinstatement and Monitoring

Following completion of construction, plant and machinery will be removed from the Site, and all temporary works areas reinstated. Works will be closely monitored and subject to approval by the Site Manager and Project Ecological Clerk of Works (ECoW).

12.1.4.3 Decommissioning

On decommissioning, the wind turbines and associated above ground concrete plinths, together with the meteorological mast will be removed from site. Underground cables will

be removed while the ducting and turbine foundations will be left in-situ. Site Access Tracks (and associated drainage) will be left in-situ for continued commercial forestry operations, and other hardstanding areas allowed to revegetate naturally.

12.2 ASSESSMENT METHODOLOGY AND CRITERIA

12.2.1 Assessment Methodology

Production of this LVIA involved baseline work in the form of desktop studies and fieldwork comprising professional evaluation by qualified and experienced Landscape Architects.

12.2.1.1 Definition of Study Area

The Wind Energy Development Guidelines (WEDG) published by the Department of the Environment, Heritage and Local Government (DOEHLG) (2006) and the Draft Revised Wind Energy Development Guidelines (DWEDG) (2019) specify various radii for examining the Zone of Theoretical Visibility (ZTV) of proposed wind farm projects. The extent of this search area is influenced by turbine height, as follows:

- 15km radius for blade tips up to 100m.
- 20km radius for blade tips greater than 100m.
- 25km radius where landscapes of national and international importance exist.

In the case of this Project, the blade tips are proposed to be a maximum of 185m high and therefore the minimum ZTV radius recommended is 20km from the outermost turbines of the scheme. There are not considered to be any sites of national or international importance between 20 – 25km of the outermost turbines of the Project and thus, the radius of the Study Area will remain at 20km. Refer to **Plate 12.1**.

Effects pertaining to other aspects of the Project, such as the Grid Connection, and TDR, are localised to the immediate environment, and as such the consideration of effects focuses on the immediate landscape context within approximately 500m. These areas fall within the 20km Study Area.

The Study Area adopted is in accordance with the WEDG/DWEDG and is consistent with Study Areas employed for comparable wind energy applications throughout Ireland. It is considered a robust area on which to structure the LVIA, whilst being proportionate to the most notable effects.

Notwithstanding the full extent of the LVIA Study Area, there will be a particular focus on receptors and effects within the 'Central Study Area' where there is a higher potential for

significant effects to occur. When referenced within this assessment, the 'Central Study Area' is the landscape within 5km of the Site. The remainder of the Study Area beyond 5km to the 20km outer limit is referred to as the 'Wider Study Area'. Relevant guidance does not require a 'Central Study Area', or 'Wider Study Area' to be defined, but it has become standard / best practice to highlight the distinction between the immediate context of the site, the context of the landscape within the local vicinity of the turbines, and then the context of the wider landscape.

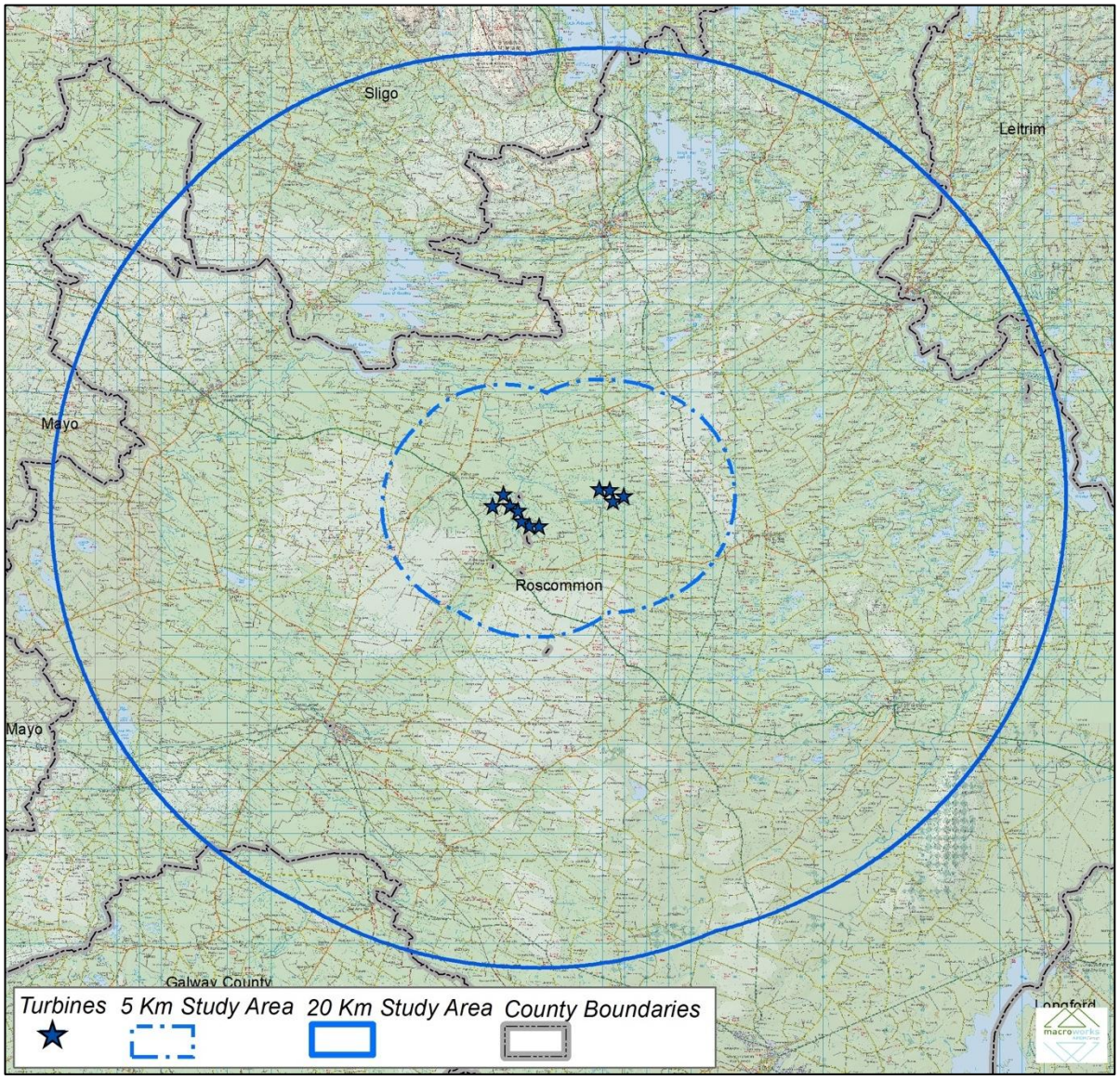

Plate 12.1: Mapping illustrating the full extent of the LVIA Study Area.

12.2.1.2 Desktop Study

- Review of a Zone of Theoretical Visibility (ZTV) map, which indicates areas from which the Project is potentially visible in relation to terrain within the Study Area.

- Review of relevant County Development Plans (CDP), particularly regarding sensitive landscape and scenic view/route designations.
- Selection of potential Viewshed Reference Points (VRPs) from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity (outlined in due course).

12.2.1.3 Fieldwork

Macro Works has a comprehensive understanding of the site context within the Wider Study Area, having carried out numerous site visits to the locality on this project and a variety of other projects in the wider study area over the last 10+ years. Site visits to potential VRP locations and the Wider Study Area were carried out between May and October 2025, to gain a baseline understanding of landscape context and to interrogate the ZTV. Site visits also included the capture of baseline photography and grid reference coordinates for each location for use in the production of photomontages. The frequency of site visits and the timing of them, enabled a full understanding of the potential visibility of the development, which accords with best practice.

12.2.1.4 Landscape and Visual Assessment

The process adopted in regard to the identification of landscape and visual effects (adopting the assessment criteria) is summarised as follows:

- Selection of a refined set of VRPs for assessment (outlined in due course).
- Consideration of the receiving landscape with regard to overall landscape character as well as the salient features of the Study Area including landform, drainage, vegetation, land use and landscape designations.
- Consideration of the visual environment including receptor locations such as centres of population and houses, transport routes, public amenities and facilities and designated and recognised views of scenic value.
- Consideration of relevant design guidance and planning policies.
- Consideration of potentially significant construction, operational, and decommissioning phase effects and the mitigation measures that could be employed to reduce such effects.
- Assessment of the level (significance) of residual landscape effects.
- Assessment of the level (significance) of residual visual effects aided by photomontages prepared at all of the selected VRP locations.
- Assessment of cumulative landscape and visual effects in combination with other relevant surrounding developments that are either existing, permitted, or subject to a valid planning application.

12.2.2 Relevant Legislation and Guidance

This LVIA uses a methodology that is in accordance with that prescribed within the following guidance documents:

- Environmental Protection Agency (EPA) publication entitled: 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (2022) and the accompanying Advice Notes on Current Practice in the Preparation of Environmental Impact Assessment Reports;
- Landscape Institute and the Institute of Environmental Management and Assessment publication entitled: 'Guidelines for Landscape and Visual Impact Assessment – Third Edition' (2013) (Denoted GLVIA3);
- Landscape Institute publication entitled: Technical Guidance Note (TGN) LITGN-2024-01, 'Notes and Clarifications on aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition' (2024);
- Department of the Environment, Heritage and Local Government publication entitled: 'Wind Energy Development Guidelines' (2006) and 'Draft Revised Wind Energy Development Guidelines' (2019);
- NatureScot publication entitled: 'Assessing the cumulative landscape and visual impact of onshore wind energy developments' (2021);
- Scottish Natural Heritage (SNH) publication entitled: 'Visual representation of wind farms: Best Practice Guidelines' (version 2.2 - 2017); and
- Landscape Institute publication entitled: Technical Guidance Note (TGN) 06/19 'Visual Representation of development proposals' (2019).

GLVIA3 is widely recognised and used by landscape professionals as the principal guidance in undertaking LVIA work in Ireland and the UK and is considered to represent best practice in the absence of country-specific LVIA and visualisation guidance/standards. The other guidance outlined is also widely recognised and used by landscape professionals in informing and guiding LVIA work in Ireland.

12.2.3 Computer Generated Images, Photomontages and Wireframes

This LVIA is supported by a variety of computer-generated maps and graphics including ZTV maps and verifiable photomontages that depict the Project within the views from a range of represented visual receptor locations. Photomontages include existing views, wireframe views and proposed views.

12.2.4 Assessment Criteria for Landscape Effects

12.2.4.1 Landscape Sensitivity

When assessing the potential landscape effects of the Project, the value and sensitivity of the landscape receptor are weighed against the magnitude of change to determine the level of the landscape effect. The criteria outlined below are used to guide these judgements.

Landscape Value & Quality

To understand what is important in a landscape and why, it is necessary to first establish the value or importance of the landscape and whether this is at a local, regional, or national level.

As described within GLVIA3, the value of a landscape can apply to the landscape as a whole or to the individual elements, features and aesthetic dimensions which contribute to the character of that landscape. Several factors including, scenic beauty, wildness, tranquillity, and cultural associations, can inform the value of a landscape. Where a high value is accredited, this may be representative of a formal designation that recognises a particular landscape or visual importance. Equally, landscapes considered to be of low value would generally be undesignated, degraded landscapes. The value attached to undesignated landscapes also requires further consideration in terms of any local value that may be placed upon it.

The nature or factors considered in reaching a judgement regarding Landscape Value will be described as Very High, High, Medium, Low, or Very Low. Guiding criteria are detailed as follows:

- Very High value - High Importance (or Quality) and Rarity. No or limited potential for substitution. Areas containing a strong, balanced structure with distinct features worthy of conservation. Generally International, National scale;
- High value – High Importance (or Quality) and Rarity. Limited potential for substitution. Areas containing a strong structure with noteworthy features or elements, exhibiting a sense of place. Generally National, Regional, Local scale;
- Medium value - Medium Importance (or Quality) and Rarity. Limited potential for substitution. Areas primarily of valued landscape components with low levels of visual detractors, exhibiting a recognisable landscape structure. Generally Regional, Local scale (Undesignated but value perhaps expresses through non-official publications or demonstrable use);
- Low value - Low Importance (or Quality) and Rarity. Areas containing some features of landscape value but lacking a coherent structure with frequent detracting visual

elements, exhibiting a distinguishable structure often concealed by mixed land uses or development. Local scale (Areas identified as having some redeeming feature or features and possibly identified for improvement); and

- Very Low value – Low Importance (or Quality) and Rarity. Areas lacking valued landscape components with degraded, disturbed, or derelict features or with a dominance of visually detracting elements, exhibiting mixed land uses. Generally Local scale.

In a comparable way, the quality/condition of the landscape and visual resource also needs to be established and typical criteria for determining landscape quality will be described as Very High, High, Medium, Low, or Very Low. Guiding criteria are detailed as follows;

- Very High quality - Strong landscape structure, characteristics, patterns, balanced combination of landform and land cover; appropriate management of land use and land cover; all landscape elements remain intact and in good repair with distinct features worthy of conservation; sense of place;
- High quality – Strong landscape structure, characteristics, patterns, balanced combination of landform and land cover; appropriate management of land use and land cover; distinct features worthy of conservation; sense of place; occasional detracting features;
- Medium quality - Recognisable landscape structure, characteristic patterns and combinations of landform and land cover are still evident; scope to improve management for land use and land cover; some features worthy of conservation; sense of place; some detracting features;
- Low quality - Distinguishable landscape structure with some landscape elements intact, characteristic patterns of landform and landcover often masked by land use; scope to improve management of vegetation; some features worthy of conservation; some detracting features; and
- Very Low quality – Weak/ degraded landscape structure, characteristic patterns and combinations of landform and land cover are masked by land use; mixed land use evident; lack of management and intervention has resulted in degradation; frequent detracting features dominate.

The sensitivity of the landscape to change is the degree to which a particular landscape receptor (Landscape Character Area (LCA) or feature) can accommodate changes or new features without unacceptable detrimental effects on its essential characteristics. The judgement reflects such factors as its quality, value, contribution to landscape character and the degree to which the particular element or characteristic can be replaced or substituted. Landscape Sensitivity is classified using the criteria set out in **Table 12.1**.

Table 12.1: Landscape Value and Sensitivity

Criteria	Description
Very High	Areas where the landscape character exhibits a very low capacity for change in the form of development. Examples of which are high value landscapes, protected at an international or national level (World Heritage Site/National Park), where the principal management objectives are likely to be protection of the existing character.
High	Areas where the landscape character exhibits a low capacity for change in the form of development. Examples of which are high value landscapes, protected at a national or regional level (Area of Outstanding Natural Beauty), where the principal management objectives are likely to be considered conservation of the existing character.
Medium	Areas where the landscape character exhibits some capacity and scope for development. Examples of which are landscapes which have a designation of protection at a county level or at non-designated local level where there is evidence of local value and use.
Low	Areas where the landscape character exhibits a higher capacity for change from development. Typically, this would include lower value, non-designated landscapes that may also have some elements or features of recognisable quality, where landscape management objectives include, enhancement, repair and restoration.
Negligible	Areas of landscape character that include derelict, mining, industrial land or are part of the urban fringe where there would be a reasonable capacity to embrace change or the capacity to include the development proposals. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher landscape value.

12.2.4.2 Magnitude of Change - Landscape

The magnitude of change is a product of the scale, extent or degree of change that is likely to be experienced as a result of the Project. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the immediate setting that may have an effect on the landscape character. **Table 12.2** outlines the magnitude of change criteria (derived from GLVIA3) used to inform this judgement.

Table 12.2: Magnitude of Change - Landscape

Criteria	Description
Very High	Change that would be large in extent and scale with the loss of critically important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an overall change of the landscape in terms of character, value and quality.
High	Change that would be more limited in extent and scale with the loss of important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an overall change of the landscape in terms of character, value and quality.
Medium	Changes that are modest in extent and scale involving the loss of landscape characteristics or elements that may also involve the introduction of new uncharacteristic elements or features that would lead to changes in landscape character, and quality.

Criteria	Description
Low	Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic landscape elements or the addition of new features or elements.
Negligible	Changes affecting small or very restricted areas of landscape character. This may include the limited loss of some elements or the addition of some new features or elements that are characteristic of the existing landscape or are hardly perceivable.

12.2.4.3 Assessment Criteria for Visual Effect

As with the landscape impact, the visual impact of the Project will be assessed as a function of receptor sensitivity versus magnitude. In this instance, the sensitivity of visual receptors weighed against the magnitude of visual effects.

12.2.4.4 Visual Sensitivity

As with landscape sensitivity, the sensitivity of a visual receptor is categorised as Very High, High, Medium, Low, and Negligible. Unlike landscape sensitivity, however, the sensitivity of visual receptors has an anthropocentric (human) basis. It considers factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity the viewer is engaged in and whether this heightens their awareness of the surrounding environment.

Visual sensitivity is a two-sided analysis of receptor susceptibility (people or groups of people) versus the value of the view on offer at a particular location.

To assess the susceptibility of viewers and the amenity value of views, the assessors use a range of criteria and provide a four-point weighting scale to indicate how strongly the viewer/view is associated with each of the criteria. Susceptibility criteria are extracted directly from the GLVIA3, whilst the value criteria relate to various aspects of a view that might typically be related to high amenity including, but not limited to, scenic designations.

These are set out below:

<u>Susceptibility of Visual Receptors to change</u>

In accordance with GLVIA3 visual receptors most susceptible to changes in views and visual amenity are:

- *"Residents at home*
- *People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views*

- *Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience*
- *Communities where views contribute to the landscape setting enjoyed by residents in the area*
- *Travellers on road rail or other transport routes where such travel involves recognised scenic routes and awareness of views is likely to be heightened".*

"Visual receptors that are less susceptible to changes in views and visual amenity include:

- *People engaged in outdoor sport or recreation, which does not involve or depend upon appreciation of views of the landscape*
- *People at their place of work whose attention may be focussed on their work or activity, not their surroundings and where the setting is not important to the quality of working life".*

Values typically associated the visual amenity

The value attached to a view is determined by considering the following:

- Recognised scenic value of the view (County Development Plan designations, guidebooks, touring maps, postcards etc). These represent a consensus in terms of which scenic views and routes within an area are strongly valued by the population because in the case of County Development Plans, at least, a public consultation process is required.
- Views from within highly sensitive landscape areas. Again, highly sensitive landscape designations are usually part of a county's Landscape Character Assessment, which is then incorporated with the County Development Plan and is therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them.
- Intensity of use, popularity. Whilst not reflective of the amenity value of a view, this criterion relates to the number of viewers likely to experience a view regularly and whether this is significant at the county or regional scale.
- Connection with the landscape. This considers whether or not receptors are likely to be highly attuned to views of the landscape i.e. commuters hurriedly driving on busy national route versus hill walkers directly engaged with the landscape enjoying changing sequential views over it.
- Provision of elevated panoramic views. This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas.

- Sense of remoteness and/or tranquillity. Remote and tranquil viewing locations are more likely to heighten the amenity value of a view and have a lower intensity of development in comparison to dynamic viewing locations such as a busy street scene, for example:
- Degree of perceived naturalness. Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by obvious human interventions.
- Presence of striking or noteworthy features. A view might be strongly valued because it contains a distinctive and memorable landscape feature such as a promontory headland, lough or castle.
- Historical, cultural or spiritual value. Such attributes may be evident or sensed at certain viewing locations that attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings.
- Rarity or uniqueness of the view. This might include the noteworthy representativeness of a certain landscape type and considers whether other similar views might be afforded in the local or the national context.
- Integrity of the landscape character in view. This criterion considers the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components.
- Sense of place. This criterion considers whether there is a special sense of wholeness and harmony at the viewing location.
- Sense of awe. This criterion considers whether the view inspires an overwhelming sense of scale or the power of nature.

Those locations where highly susceptible receptors or receptor groups are present and which are deemed to satisfy many of the view value criteria above are likely to be judged to have a high visual sensitivity and vice versa.

It is recognised that a viewer's interpretation and experience of the landscape can have preferential and subjective components. Where relevant, judgements are made on those elements of the landscape that are considered to contribute more prominently and positively as well as those elements that contribute negatively. Overall sensitivity may be a result of a number of these factors or a strong association with one or two in particular.

12.2.4.5 Magnitude of Change - Visual

The magnitude of change is determined on the basis of two factors; the visual presence of the proposal and its effect on visual amenity.

Visual presence is a somewhat quantitative measure relating to how noticeable or visually dominant the proposal is within a particular view. This is based on a number of aspects beyond simply scale in relation to distance. Some of these include the extent of the view as well as its complexity and the degree of existing contextual movement experienced such as might occur where turbines are viewed as part of/beyond a busy street scene. The backdrop against which the Project is presented and its relationship with other focal points or prominent features within the view is also considered. Visual presence is essentially a measure of the relative visual dominance of the proposal within the available vista and is expressed as such i.e. minimal, sub-dominant, co-dominant, dominant, highly dominant.

For wind energy developments, a strong visual presence is not necessarily synonymous with adverse impact, specifically being 'noticed' by viewers and contributing memorably to the experience of that view or location – positive or negative. Instead, the 2018 Fáilte Ireland survey entitled 'Report on Visitor Awareness and Perceptions of the Irish Landscape' summarised results as below:

- *"The majority of visitors appear not to notice the majority of development – even very large and visually prominent structures such as wind turbines and powerlines*
- *It appears that there are significant divergences between the what can be seen and what is noticed*
- *The majority of visitors expressed very limited desire to change developments that they do notice*
- *The visibility of developments of all types give rise to significantly less adverse effects on the impression of landscape than may often be assumed in the decision-making process*
- *The majority of visible development does not appear to have any adverse effects on the impression of the quality of the landscape"*

With specific regard to wind farms, the following is mentioned within the main report:

- *"Visibility at Locations - Windfarms or Wind Turbines were visible from four locations, they were mentioned by visitors at one location – Cobh. At this site 11% of visitors mentioned noticing wind energy projects*
- *Visibility en-route to locations - Wind Energy projects were mapped as being visible en-route to six sites, they were mentioned by less than 5% of all visitors."*

The purpose here is not to suggest that turbines are unlikely to be noticed, regardless of the visual presence, but rather to highlight that the assessment of visual magnitude for wind turbines is more complex than just the degree to which turbines occupy a view. Furthermore,

a clear and comprehensive view of a wind farm might be preferable in many instances to a partial, cluttered view of turbine components that are not so noticeable within a view.

On the basis of these reasons, the visual amenity aspect of assessing magnitude is qualitative and considers such factors as the spatial arrangement of turbines both within the scheme and in relation to surrounding terrain and land cover. It also examines whether the Project contributes positively to the existing qualities of the vista or results in distracting visual effects and disharmony.

It should be noted that as a result of this two-sided analysis, a high-order visual presence can be moderated by a low level of effect on visual amenity and vice versa. Given that wind turbines do not represent significant bulk; visual impacts result almost entirely from visual 'intrusion' rather than visual 'obstruction' (the blocking of a view). **Table 12.3** outlines the magnitude of change criteria (derived from GLVIA3) used to inform this judgement.

Table 12.3: Magnitude of Change - Visual

Criteria	Description
Very High	The proposal intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. A high degree of visual disorder or disharmony is also generated, strongly reducing the visual amenity of the scene.
High	The proposal intrudes into a significant proportion or important part of the available vista and is one of the most noticeable elements. A considerable degree of visual disorder or disharmony is also likely to be generated, appreciably reducing the visual amenity of the scene.
Medium	The proposal represents a moderate intrusion into the available vista, is a readily noticeable element and/or it may generate a degree of visual disorder or disharmony, thereby reducing the visual amenity of the scene. Alternatively, it may represent a balance of higher and lower order estimates in relation to visual presence and visual amenity.
Low	The proposal intrudes to a minor extent into the available vista and may not be noticed by a casual observer and/or the proposal would not have a marked effect on the visual amenity of the scene.
Negligible	The proposal would be barely discernible within the available vista and/or it would not detract from, and may even enhance, the visual amenity of the scene.

12.2.5 Level of Effects

The purpose of an LVIA when produced in the context of an EIA is to identify any 'significant' effects on landscape and visual amenity arising from the Project. Neither EC Directive 2014/52/EU[1] nor domestic legislation defines a threshold at which an effect may be determined to be significant. In certain other environmental disciplines, there are regulatory

[1] Directive 2014/52/EU (2014). The assessment of the effects of certain public and private projects on the environment. Official Journal of the European Union.

thresholds or quantitative standards which help to determine the threshold of what constitutes a significant effect.

The EPA Guidelines (2022) defines 'Significant Effects' (within Table 3.4 of the guidelines), as "*an effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment*." This definition is, however, provided as guidance alongside 7 other generalised definitions that may be used to describe the 'Significance' of effects, "*in the absence of specific descriptions*". 'Significance' is cited as "*a concept that can have different meanings for different topics*", and a chart is included (at Figure 3.4 of the guidelines) to guide this process.

GLVIA3 defines 'significance' as "*a measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic*". It does not define what may constitute a 'significant' effect or provide thresholds that indicate where effects would become significant rather than not significant but states that "*there are no hard and fast rules about what effects should be deemed 'significant'*" (paragraph 3.32 of GLVIA3).

This is further expanded upon in paragraph 5.54 (concerning landscape effects), which states that "*significance can only be defined in relation to each development and its specific location. It is for each assessment to determine how the judgements about the landscape receptors and landscape effects should be combined to arrive at significance and to explain how the conclusions have been derived.*"

GLVIA3 also states that the assessment of significance is "*an evidence-based process combined with professional judgement*" (paragraph 3.23). Professional judgement is (as acknowledged in GLVIA3) a very important aspect of LVIA, and it is important to remember that "*even with qualified and experienced professionals there can be differences in the judgements made. This may result from using different approaches or different criteria, or from a variation in judgements based on the same approach and criteria*" (GLVIA3 paragraph 2.25). This LVIA has been undertaken by appropriately qualified and experienced LVIA practitioners, experienced in the production of LVIAs as previously outlined, using well-established and tested methodology.

The level of a landscape or visual effect (or relative significance) is based on a balance between the sensitivity of the receptor and the magnitude of change and is categorised as Profound, Substantial, Moderate, Slight, or Imperceptible. Intermediate judgements are also

provided to enable an effect to be more accurately described where relevant. 'No Effect' may also be recorded as appropriate where the effect is so negligible it is not noteworthy.

The level category judgement is arrived at using the matrix in **Table 12.4** as a guide which applies the principle of significance being a function of magnitude weighed against sensitivity but employs slightly different terminology (level of effect) that avoids the potentially confusing use of the term 'Significant' (as recommended by GLVIA3 Statement of Clarification 1/13[2]).

Table 12.4: Level of Effect Matrix

	Sensitivity of Receptor				
Magnitude	*Very High*	*High*	*Medium*	*Low*	*Negligible*
Very High	**Profound**	**Profound-Substantial**	**Substantial**	Moderate	Slight
High	**Profound-Substantial**	**Substantial**	Substantial-Moderate	Moderate-Slight	Slight-Imperceptible
Medium	**Substantial**	Substantial-Moderate	Moderate	Slight	Imperceptible
Low	Moderate	Moderate-Slight	Slight	Slight-Imperceptible	Imperceptible
Negligible	Slight	Slight-Imperceptible	Imperceptible	Imperceptible	Imperceptible

Note: Judgements deemed 'Substantial' and above are considered to be 'significant effects' in EIA terms. Substantial-Moderate judgements are considered borderline significant.

Whilst the matrix and criteria provide a useful guide, the level of an effect is ultimately determined by the landscape specialist using professional judgement, and also in the context of occasionally using hybrid judgements to account for nuance.

For the purposes of assessment, effects assessed as 'Substantial' or greater (in bold text / shaded cells) in **Table 12.4**, are considered to be the most notable in landscape and visual terms, and most material in the decision-making process, albeit not a reflection of their acceptability in planning terms.

[2] Landscape Institute GLVIA3 Statement of Clarification 1/13 – Significance. Landscape Institute 10-06-13

12.2.5.1 Quality and Timescale of Effects

In addition to assessing the level (significance) of landscape and visual effects, EPA Guidance requires that the quality of the effects is also determined. This could be negative/adverse, neutral, or positive/beneficial.

- Positive Effects: A change which improves the quality of the environment;
- Neutral and/or balanced Effects: No effects, or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
- Negative/adverse Effects: A change that reduces the quality of the environment

The same EPA guidelines also set out categories of duration:

- Temporary – Lasting for 1 year or less;
- Short Term – Lasting 1 to 7 years;
- Medium Term – Lasting 7 to 15 years;
- Long Term – Lasting 15 years to 60 years; and
- Permanent – Lasting over 60 years.

In the case of commercial wind energy developments and the associated introduction of new moving structures within rural and upland areas, the quality of the landscape and visual effects will almost always be negative, rather than positive, and unless otherwise stated is the default quality of any identified effect. Where effects are imperceptible or not possible as a result of distance, context, or views being screened by foreground elements, effects are considered Neutral as the proposals neither improve nor reduce the quality of the environment.

In terms of duration, the proposed turbines will have a long-term impact, as permission is being sought for a 35-year operational life after which the turbines will be decommissioned. Some other elements of the Project relating to Access Tracks and elements of the Grid Connection and Onsite Substation will likely remain in perpetuity and will therefore have permanent effects.

12.2.6 Assessment Criteria for Cumulative Effects

Whilst the WEDG remains the overarching guidance and provides a reference to cumulative effects in relation to the aesthetic considerations in siting and design (at Section 6.5, P41), the DWEDG references the need to assess the cumulative effects of the scheme (at 4.7.4, P41) as including the "wind energy development and the grid connection and any other works which are ancillary to the development of the wind energy development" in order that the planning application addresses the cumulative impacts of the whole project. Cumulative

in this context relates to the project as a whole and has been the approach adopted in the main assessment (as outlined in Section 10.2.2).

NatureScot's 'Guidance – Assessing the Cumulative Effects of Onshore Wind Farms' (2021) is considered a key reference with regard to cumulative landscape and visual effects. GLVIA3 provides comparable guidance in relation to cumulative issues.

The principal focus of wind energy cumulative impact assessment guidance relates to other wind farms, as opposed to other forms of development (existing, permitted or subject to a valid planning application) that are considered relevant. This will be the main focus herein.

In relation to cumulative landscape impacts, the NatureScot guidance states:
"Cumulative landscape impacts can change either the physical fabric or character of the landscape, or any special values attached to it. For example:

- *Cumulative impacts on the physical fabric of the landscape arise when two or more developments affect landscape components such as woodland, dykes, rural roads or hedgerows. Although this may not significantly affect the landscape character, the cumulative effect on these components may be significant – for example, where the last remnants of former shelterbelts are completely removed by two or more developments.*
- *Cumulative impacts on landscape character arise when two or more developments introduce new features into the landscape. In this way, they can change the landscape character to such an extent that they create a different landscape character type, in a similar way to large scale afforestation. That change need not be adverse; some derelict or degraded landscapes may be enhanced as a result of such a change in landscape character, especially where opportunities for new woodland planting, or peatland restoration are maximised, for example."*

In relation to cumulative visual impacts, the NatureScot guidance states:
Cumulative impacts on visual amenity can be caused by 'combined visibility' and/or 'sequential impacts':

- *Combined visibility occurs where the observer is able to see two or more developments from one viewpoint. Assessments should consider the combined effect of all wind farms which are (or would be) visible from relevant viewpoints. Combined visibility may either be in combination (where several wind farms are within the observer's arc of vision at the same time) or in succession (where the observer has to turn to see the various wind farms).*

- *Sequential impacts occur when the observer has to move to another viewpoint to see different developments. Sequential impacts should be assessed for travel along regularly-used routes like major roads, railway lines, ferry routes, popular paths, etc. The magnitude of sequential effects will be affected by speed of travel and distance between viewpoints'*

The WEDG describes a cumulative effect as "*the perceived effect on the landscape of two or more wind energy developments visible from any one place*" and provides guidance as to the aesthetic effects of multiple turbine developments in various landscape contexts. It also requires that cumulative effects are represented using Zone of Theoretical Visibility maps that show other wind energy developments.

Based on both sets of guidance, cumulative impacts can be experienced in a variety of ways.

In terms of landscape character, additional wind energy developments might contribute to an increasing sense of proliferation. A new wind farm might also contribute to a sense of being surrounded by turbines with little relief from the view of them.

In terms of visual amenity, there is a range of ways in which an additional wind farm might generate visual conflict and disharmony with other wind energy developments. Some of the most common include visual tension caused by disparate extent, scale or layout of neighbouring developments. A sense of visual ambivalence might also be caused by adjacent developments traversing different landscape types. Turbines from a proposed wind farm that are seen stacked in perspective against the turbines of nearer or further developments tend to cause visual clutter and confusion. Such effects are exacerbated when, for example, the more distant turbines are larger than the nearer ones and the sense of distance is distorted.

Table 12.5 provides Macro Works' criteria for assessing the magnitude of cumulative impacts. The approach adopted is underpinned by both the NatureScot Guidelines (2021) and GLVIA3 and retains a proportionate focus on the most notable effects as is best practice. As industry-specific guidance for the assessment of cumulative landscape and visual effects, the guidance outlined is widely adopted for LVIA work in Ireland, and is considered best practice in Ireland. The approach outlined has been used successfully in identifying cumulative landscape and visual effects in relation to many other schemes across Ireland.

Other wind energy developments are the most relevant type of development in a cumulative LVIA assessment given the comparable characteristics, and the nature of their effects. In this regard, small and domestic-scale wind turbines are generally not considered relevant given their proportions and potential to generate notable cumulative effects.

Given the potentially extensive scope of including all other types of development within a cumulative LVIA, a proportionate level of consideration is given to schemes that are considered to have the potential to significantly alter the cumulative landscape and visual Baseline environment. Cumulative schemes are outlined in **Table 2.1** in **Chapter 2: Project Description**.

Table 12.5: Magnitude of Cumulative Impacts

Criteria	Description
Very High	• The proposed wind farm will strongly contribute to wind energy development being the defining element of the surrounding landscape. • It will strongly contribute to a sense of wind farm proliferation and being surrounded by wind energy development. • Strongly adverse visual effects will be generated by the proposed turbines in relation to other turbines.
High	• The proposed wind farm will contribute significantly to wind energy development being a defining element of the surrounding landscape. • It will significantly contribute to a sense of wind farm proliferation and being surrounded by wind energy development. • Significant adverse visual effects will be generated by the proposed turbines in relation to other turbines.
Medium	• The proposed wind farm will contribute to wind energy development being a characteristic element of the surrounding landscape. • It will contribute to a sense of wind farm accumulation and dissemination within the surrounding landscape. • Adverse visual effects might be generated by the proposed turbines in relation to other turbines.
Low	• The proposed wind farm will be one of only a few wind farms in the surrounding area and will be viewed in isolation from most receptors. • It might contribute to wind farm development becoming a familiar feature within the surrounding landscape. • The design characteristics of the proposed wind farm accord with other schemes within the surrounding landscape and adverse visual effects are not likely to occur in relation to these.
Negligible	• The proposed wind farm will most often be viewed in isolation or occasionally in conjunction with other distant wind energy developments. • Wind energy development will remain an uncommon landscape feature in the surrounding landscape. • No adverse visual effects will be generated by the proposed turbines in relation to other turbines.

12.2.7 Assumption and Limitations

The assessment of effects has been derived through the use of publicly available information and Site visits. In terms of the latter, whilst it is unfeasible to visit every single

location from which the Project might be visible, the authors of the LVIA know the landscape well and have undertaken LVIA work previously within the Study Area.

12.2.8 Visual Material and Photography

Photography has been undertaken with reference to Landscape Institute TGN 06/19, guidance which advocates proportionality regarding the production of technical LVIA visual material, and appropriate levels of accuracy. It refers to different 'types' of visualisations, based on the anticipated purpose and users of the visual material, the anticipated level of effect, and other relevant factors.

Given that the purpose of the visual material is to accompany a planning application, the production of visual material has followed a highly accurate and verifiable process to accurately communicate the scale, appearance, context, form, and extent of development. The photomontages can be likened to Type 3 and 4 in the guidance.

The photography was captured during good weather conditions with high levels of visibility. Photography has been taken to a very high standard, with a full-frame sensor camera and 50mm fixed lens mounted on a tripod with a panoramic head. The equipment used is as follows:

- Camera: Canon EOS 5D Mark II Full Frame Sensor
- Lens: Canon 50mm Lens
- Tripod and camera mount: Manfrotto MT190XPRO3 tripod with panoramic head and leveller

Locational information was obtained via GPS equipment that affords a high degree of locational accuracy.

12.3 BASELINE DESCRIPTION

12.3.1 Landscape Baseline

The landscape Baseline represents the existing landscape context and is the scenario against which any changes to the landscape brought about by the Project will be assessed. This also includes reference to any relevant landscape character appraisals and the current landscape policy context (both are generally contained within County Development Plans). The relevant County Development Plan (CDP) covering the Site is the Roscommon CDP 2022-2028. Parts of the Wider Study Area fall outside of the administrative area of County Roscommon, and therefore the CDPs for County Sligo, Mayo, Galway, and Leitrim are also considered.

A description of the landscape context of the Site and Study Area is provided under a series of structured headings as well as the immediate site context.

Additional descriptions of the landscape, as viewed from each of the selected viewpoints, are provided under the detailed assessments later in the assessment. Although this description forms part of the landscape baseline, many of the landscape elements identified also relate to visual receptors i.e. places and transport routes from which viewers can potentially see the Project. The visual resource will be described in greater detail below. **Plate 12.2** shows the Site in its landscape context and the immediate surroundings.

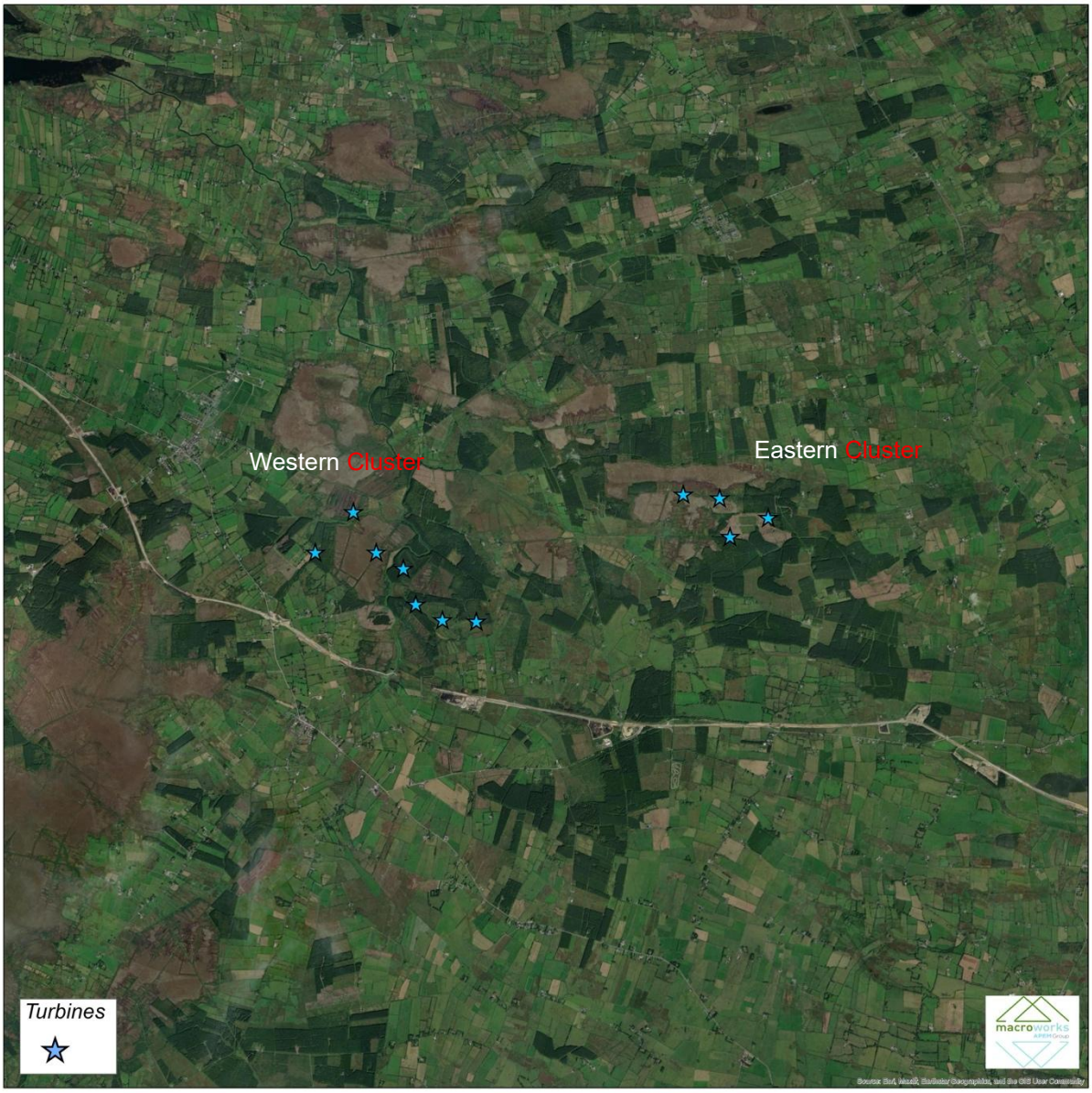

Plate 12.2: Site and its local context.

At an immediate Site level, the proposed turbines are located within an agricultural, peatland and commercial forested landscape, north of the N5, between Frenchpark and Elphin, in Co. Roscommon. As can be seen in **Plate 12.2**, the proposed turbines are distributed across two separate clusters approximately 3km apart at their closest, the western cluster comprising 7 turbines (T1-T7), and the eastern cluster comprising 4 turbines (T8-11).

12.3.1.1 Landform and Drainage

The landscape of the site and Central Study Area is principally comprised of broad, flat to low rolling terrain that ranges between approximately 60-150m AOD. Within the wider landscape, this forms a broad bogland basin, within which, the Breedoge River drains to the north to Lough Gara. It comprises extensive areas of flat peatlands, and rolling farmland, and is not considered to be highly distinctive.

The topography rises to the north towards the Curlew Mountains, which together with the elevated lands around Largan Hill, and the more distant Bricklieve Mountains, form a backdrop to longer ranging views to the north.

The topography to the east is defined by an extensive range of low drumlins aligned on a northeast to southwest axis that informs an east to west pattern of lakes. A distinctive ridge of landform passes north to south through Scramogue to the southwest of the site, with Sliabh Bawn (262m OAD) a high point.

12.3.1.2 Vegetation and Land use

Whilst the principal land cover of the Study Area is that of agricultural pastoral farmland, the Study Area also comprises significant areas of peatland and commercial conifer forest plantation. The site itself is contained in one of the more extensively modified areas of bog, interspersed with large blocks of conifer forestry that tend to dominate views in the local landscape given their dark, homogenous character and their influence across short distance horizons. Overall, the Central Study Area is equally divided into areas of forestry, bog, and pasture.

In the Wider Study Area, to the north, there is a greater complexity of landform and waterways surrounding Lough Gara, Cavetown Lough, and smaller patches of bog. To the west, there are extensive areas of pasture, with smaller than average field sizes, and a proliferation of standalone residences. This area is divided from the southern Study Area by the largest intact area of bog across the Study Area, Bellanagare Bog (SAC, SPA, pNHA). From the south-eastern border of Bellanagare Bog, the landscape is dominated by

agricultural land use and patterns, both modern and historic, with a high concentration of historic sites in the southern section of the Study Area, along the N5 road corridor. The eastern section of the Study Area is also dominated by farmland, with two areas of drowned drumlins to the northeast and south-eastern periphery of the Study Area.

12.3.1.3 Centres of Population

The nearest centre of population to the site is the small village of Frenchpark, which is located along the N5 National road around 2.1km to the northwest of the closest proposed Wind Turbine (T2). The small village settlement of Ballinagare is located c,2.2km to the southwest of the proposed T5, and Ballinameen c.3.5km to the northeast of the proposed T8.

In the Wider Study Area, the settlements of Elphin and Tulsk occur in the middle distance to the southeast of the site, at approximately 6km and 9km distance respectively. Further afield lie the notable settlements of Ballaghaderreen (13km to the northwest), Carrick-on-Shannon (16km to the northeast), Strokestown (15km to the southeast), and Castlerea (15km to the southwest).

Throughout the Study Area, there is an even distribution of standalone residences, however, the Central Study Area is slightly less populated, with the bog and conifer forests maintaining large tracts of undeveloped areas.

12.3.1.4 Transport Routes

The Study Area contains numerous National Roads, with the N5 traversing the Study Area in a southeast to northwest direction and is situated just over 1km southwest of the site at its nearest point. It is noted that the N5 Ballaghaderreen to Scramogue road project currently in development, lies in the landscape between the proposed turbines and the N5 to the south of the site, and will further the road context in this part of the landscape.

In the northern section of the Study Area, the N61 connects into the N4 north of Boyle. The N61 runs north/south through the eastern side of the Study Area, 3km from the site at its closest point, intersecting the N5 at Tulsk.

The N60 passes through the southern part of the Study Area, passing through Castlerea. The Study Area is also overlaid by numerous regional roads. The R370 and R369 contain the site to the north and south respectively. There is a small section of the R361 with connects the R370 to the N5, before continuing northeast and southwest across the Study

Area through Frenchpark. South of the site, the R369, runs from the N5 east to the N61, before terminating at Elphin/Nuns Lane, where it joins the R368.

Typical of any developed and rural area in Ireland, the landscape is further dissected by a network of local roads and private/farm tracks.

12.3.1.5 Tourism, Heritage and Recreation

Whilst the Central Study Area is not synonymous with recreation, typical of most settled landscapes throughout Ireland, there are numerous local recreational facilities and amenities scattered throughout the landscape, associated primarily with the urban concentrations. Recreational facilities (such as play areas), GAA grounds, and heritage features such as churches and cemeteries are present in areas surrounding urban populations such as Bellanagare, and Frenchpark. Elphin Windmill is a local attraction of both amenity and heritage value around 5.6km to the east, as is the War of Independence Monument on the outskirts of Elphin.

The river and lake landscapes, together with the mountainous terrain in the more distant parts of the Wider Study Area offer recreational value, reflected by the scenic designations and defined viewpoints, such as Wynne's View (over 13km to the northwest).

Whilst there are no promoted recreational routes within the Central Study Area, it is noted that with Wider Study Area plays host to several promoted recreational routes.

The Lung Lough Gara Way waymarked trail winds its way through the landscape south to north through the landscape to the east of the site at approximately 7.6km at its closest point. It connects into the Suck Valley Way at Castlerea to the south, and the Miner's Way & Historical Trail to the north. The National Famine Way commences at Strokestown approximately 15.5km to the southeast.

Carrick on Shannon is a notable tourist location around 15km to the east, with the Shannon Blueway and the Kingfisher Cycle Trail amongst other amenity features occurring in the town.

Numerous promoted walks such as the Bockagh Hill walking loop (around 16km to the northwest), the Ballaghaderreen and Brusna Walking loop (14km to the northwest), and the more distant Lough O'Flynn – Wild Goose Bog Loop (18km southwest), also demonstrate the recreational value of the wider landscape.

Typical of many rural landscapes in Ireland, there are numerous archaeological features and features of cultural significance scattered throughout the landscape. However, the most significant is considered to relate to the concentration of archaeological monuments at Rathcroghan Complex, comprising mounds, ringforts, ring barrows, ancient roads and field systems, megalithic tombs and souterrains. The Rathcroghan Visitors Centre is located at the southern periphery of the Study Area in Tulsk.

Rathcroghan is in Ireland's Tentative List for World Heritage Properties and is a highly frequented location given its cultural significance.

12.3.1.6 WEDG (2006), and DWEDG (2019)

Both the WEDG and the DWEDG provide guidance on wind farm siting and design criteria for a number of different landscape types. Whilst the site and its immediate environs is considered to relate most closely with the characteristics of the 'Hilly and Flat Farmland' landscape type from the WEDG/DWEDG in terms of land cover, the landscape shares characteristics of the 'Flat Peatland' landscape type, in terms of flatness and broad-scale land use patterns.

In instances where two or more landscape types are potentially applicable, the Guidelines recommend consideration of the advice for each landscape type rather than just that considered to be most applicable. The WEDG states (p47):
"It is, however, common that a wind energy development is located in one landscape character type but is visible from another; for example, where the site comprises an unenclosed moorland ridge standing above a broad flat farmland. In such an instance, the entire visual unit should be taken into consideration…"

Siting and design recommendations for both the 'Hilly and Flat Farmland' and 'Flat Peatland' landscape types are referenced.

'Hilly and Flat Farmland' landscape type

The key characteristics are outlined in the WEDG as follows:

- *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.*

"The essential key here is one of rational order and simplicity, as well as respect for scale and human activities. The predominance of field pattern introduces an organised patchwork landcover structure that not only prompts a similar response in the siting and design of wind energy developments, but also provides a spatial structure and rhythm. Although hilly and flat farmland type is usually not highly sensitive in terms of scenery, due regard must be given to houses, farmsteads and centres of population."

Key recommendations for siting and design within the 'Hilly and Flat Farmland' landscape type are set as follows:

Location

"Location on ridges and plateaux is preferred, not only to maximise exposure but also to ensure a reasonable distance from dwellings. Sufficient distance should be maintained from farmsteads, houses and centres of population in order to ensure that wind energy developments do not visually dominate them. Elevated locations are also more likely to achieve optimum aesthetic effect. Turbines perceived as being in close proximity to, or overlapping other landscape elements, such as buildings, roads and power or telegraph poles and lines may result in visual clutter and confusion. While in practice this can be tolerated, in highly sensitive landscapes every attempt should be made to avoid it."

Spatial extent

"This can be expected to be quite limited in response to the scale of fields and such topographic features as hills and knolls. Sufficient distance from buildings, most likely to be critical at lower elevations, must be established in order to avoid dominance by the wind energy development."

The examples identified in the WEDG of appropriate and inappropriate types of spatial extent outline that a small spatial extent with a grid or linear layout is deemed appropriate in this landscape type, considering the field patterns typically present.

Spacing

"The optimum spacing pattern is likely to be regular, responding to the underlying field pattern. The fields comprising the site might provide the structure for spacing of turbines. However, this may not always be the case and a balance will have to be struck between adequate spacing to achieve operability and a correspondence to field pattern."

Layout

"The optimum layout is linear, and staggered linear on ridges (which are elongated) and hilltops (which are peaked), but a clustered layout would also be appropriate on a hilltop.

Where a wind energy development is functionally possibly on a flat landscape a grid layout would be aesthetically acceptable."

Height

"Turbines should relate in terms of scale to landscape elements and will therefore tend not to be tall. However, an exemption to this would be where they are on a high ridge or hilltop of relatively large scale. The more undulating the topography the greater the acceptability of an uneven profile, provided it does not result in significant visual confusion and conflict."

Cumulative

"It is important that 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 likely be intermittent and partially obscured, visibility of two or more wind energy development is usually acceptable."

'Flat Peatland' landscape type

The key characteristics are outlined in the WEDG as follows:

- *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.*

Of wind energy development in this type of landscape the WEDG states:

"The preferred approach here is one of large-scale response. The vast visual openness with few, if any, dominant geometric elements provides a certain freedom in the siting and design of wind energy developments.."

Key recommendations for siting and design within the 'Flat Peatland' landscape type are set as follows:

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."

The examples identified in the WEDG relating to layout advocate staggered linear layout and grid layout as being most appropriate to the simplicity and composition of this landscape.

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 feature such as a river, road or escarpment, a linear or staggered linear 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

"The openness of 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."

Setback

Section 6.18 of DWEDG refers to "*siting in relation to individual properties*," which is known as "*setback*." This is understood to be the most significant change to the 2006 guidelines that is of potential relevance to the Project. The guidelines outline a mandatory minimum setback distance of "500 metres" or the distance of "4 times the tip height" of the proposed turbines "between the nearest point of the curtilage of any residential property". This is set out in SPPR2 which is included below:

SPPR 2: With the exception of applications where reduced setback requirements have been agreed with relevant owner(s) as outlined at 6.18.2 below, planning authorities and An Bord Pleanála (where relevant), shall, in undertaking their development planning and development management functions, ensure that a setback distance for visual amenity purposes of 4 times the tip height of the relevant wind turbine shall apply between each wind turbine and the nearest point of the curtilage of any residential property in the vicinity of the Project, subject to a mandatory minimum setback of 500 metres from that residential property. Some discretion applies to planning authorities when agreeing separation distances for small scale wind energy developments generating energy primarily for onsite usage. The planning authority or An Bord Pleanála (where relevant), shall not apply a setback distance that exceeds these requirements for visual amenity purposes.

It is worth noting that DWEDG are not yet adopted. However, the Project has been designed such that the turbines achieve the minimum setback distance of 740m from residential dwellings (4 x 185m tip height). The Applicant has engaged with properties located within this recommended setback distance, with written agreement to a reduced setback in place, in accordance with guidance outlined in the DWEDG, which states "*(in) reduced setback situations, the relevant parties must provide written confirmation to the satisfaction of the planning authority that they have agreed to a reduced setback and have no objection to the proposed wind energy development*".

12.3.2 Landscape Policy Context and Designations

The Project is located wholly within County Roscommon and as such consideration is given to the Roscommon CDP (2022–2028). As can be seen in **Plate 12.3**, parts of the Wider Study Area fall within counties Sligo, Mayo, Galway, and Leitrim, and reference has been made to the CDP context of these administrative areas insofar as there is potential for the Project to generate indirect effects to landscape character, or visual effects.

12.3.2.1 Roscommon CDP 2022-2028

A Landscape Character Assessment is included within the Roscommon CDP which divides the county into seven Landscape Character Types (LCTs). The Project site falls within the 'Bogland' LCT. The county is further subdivided into Landscape Character Areas (LCAs) that broadly align with the LCT areas. The Project site is located within LCA 20 'Breedogue Bogland Basin'.

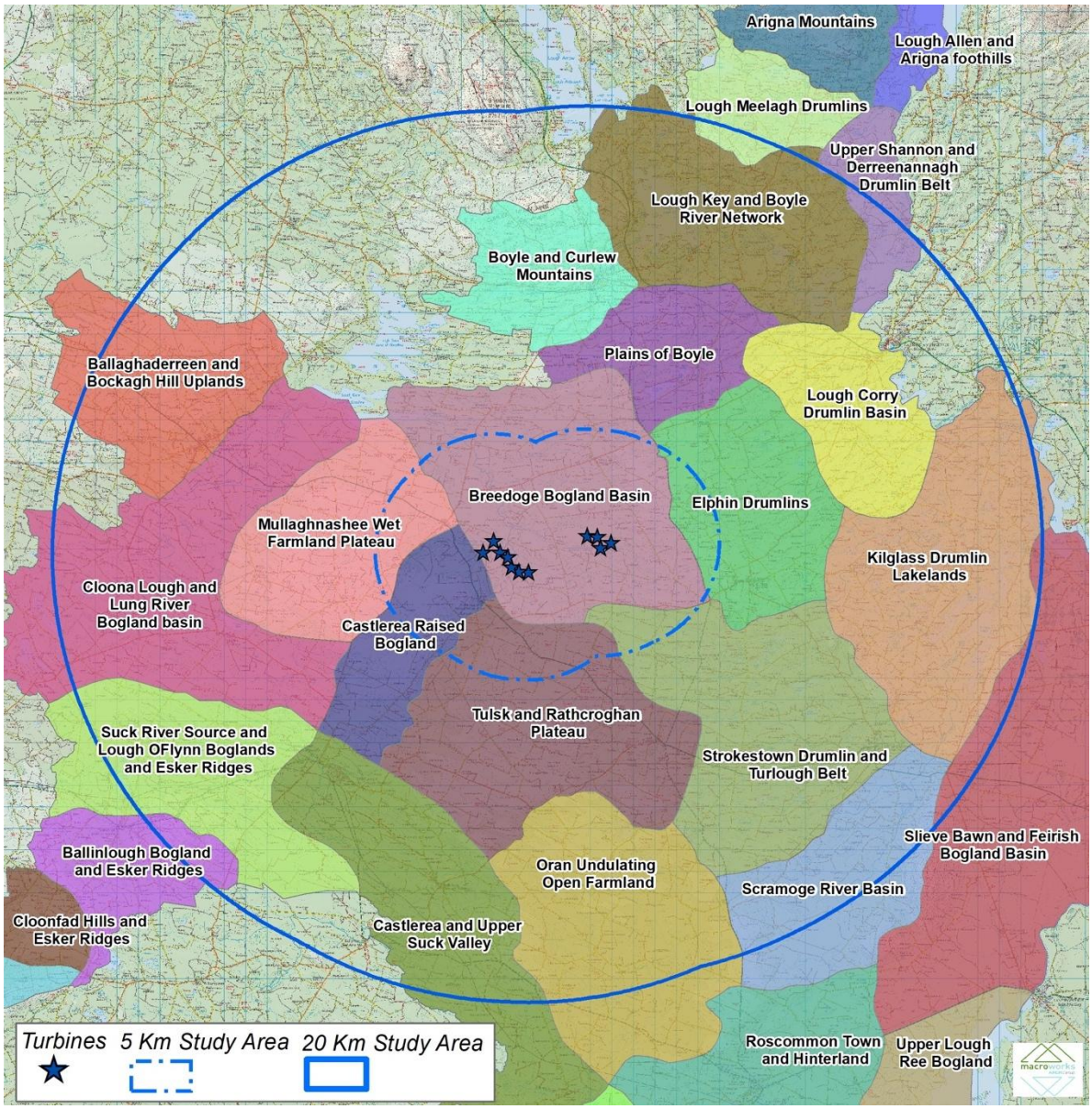

Plate 12.3: Landscape Character within the Study Area.

Key characteristics of LCA20 are described as follows:

"This LCA is located in the northern region of County Roscommon, defined by the Sligo county boundary to the north, the general catchment of the River Breedoge and landcover pattern. The landform is one of a broad shallow basin draining to the northwest serving the

above mentioned river and contained by higher ground to the west and east. The Breedoge River is fed in turn by other smaller rivers including the Mantua River and the Finasclin River. The Breedoge feeds the southern extreme of Lough Gara, providing scenic views from nearby local roads. Three distinct shifts of surface vegetation are readily apparent.

In the east of the LCA, landcover comprises mostly wet and dry grassland complex with low hedgerows of hawthorn and willow. There is a dramatic shift to raised bog and reclaimed raised bog in the centre of the LCA where birch and willow woodland occurs along drainage channels. This eventually gives way to drier grassland in the northwestern corner where coniferous stands and high hedgerows flank local roads. The areas of bog are very extensive. The LCA is served by a series of regional roads which link to the north-south N61 national road. The largest settlement in the LCA is the village of Ballinameen, located on dry and slightly elevated ground to the east."

LCA 20 is identified as being of 'Moderate Value', with the description stating:
"This LCA has been classified as Moderate in terms of landscape value. The principle feature of interest is the vast area of bogland in the centre of the LCA, which has intrinsic ecological qualities and is remote. There is a designated Scenic View located on the N61 to the east providing a broadly panoramic and elevated view overlooking this LCA."

Other LCA's within the Central Study Area include; LCA21 'Mullaghnashee Wet Farmland Plateau' and LCA27 'Castlerea Raised Bogland' to the west, LCA28 'Tulsk and Rathcroghan Plateau' and LCA29 'Strokestown Drumlin and Turlough Belt' to the south, and LCA19 'Elphin Drumlins' to the east.

LCA27 to the southwest is defined as a 'High Value landscape', recognised for their quiet wetland and river corridor landscapes, and for the areas of bogland that bring with them a strong sense of remoteness and tranquillity.

Very High value landscape (LCA 17 'Boyle and Curlew Mountains') lies to the north of the site, known for fine examples of built heritage, including Boyle Abbey and King House, and for the archaeological sites located in the Curlew Mountains. The drumlin landscape that forms the eastern edge of the county boundary, and covers much of the wider landscape of the eastern part of the Study Area (including LCAs 1-5), is also defined as 'Very High Value' landscape.

The only two LCAs in the county defined as having 'Exceptional value' are (LCA 16) 'Lough Key and Boyle River Network' that lies approximately 12km to the northeast of the Project, and LCA 28 'Tulsk and Rathcroghan Plateau' to the south of the Project. These landscapes are recognized for their habitat/recreational/scenic, and their nationally significant archaeological respectively.

Within the Roscommon CDP, the following policies apply to landscape:
NH 10.25; Minimise visual impacts on areas categorised within the County Roscommon Landscape Character Assessment including "moderate value"," high value", "very high value" and with special emphasis on areas classified as "exceptional value" and where deemed necessary, require the use of Visual Impact Assessment where Project may have significant effect on such designated areas.

NH 10.26; Protect important views and prospects in the rural landscape and visual linkage between established landmarks, landscape features and views in urban areas.

NH10.27; To co-ordinate with all adjoining Local Authorities in reviewing Landscape Character Assessments (LCAs) to ensure consistency in classification and policy in adjoining areas of similar character. A targeted review of the LCA shall be undertaken following the completion of the National Landscape Character Assessment, and any associated statutory Guidelines as well as the Regional Landscape Character Assessment to be completed by the Regional Assembly.

12.3.2.2 Roscommon Wind Energy Strategy 2022-2028

A Renewable Energy Strategy is incorporated within the Roscommon CDP, which divides the County into areas of suitability including 'Less Favoured', 'Most Favoured' and 'Not Favoured' in regards to Wind Energy (refer **Plate 12.4**). These are described within the CDP as:

- Most Favoured - Wind farm development will be considered favourably, subject to compliance with all necessary siting and design standards.
- Less Favoured - Wind farm development will be considered, but the sensitivities revealed in these areas would render exploitation more problematic and therefore these areas are less favoured for wind energy development.
- Not Favoured - Wind farm development will not be considered favourably in these areas.

The analysis of sensitivity that underpin these areas was informed by landscape Value (amongst other considerations), and regard was had to the Landscape Character Assessment.

The Project falls entirely within part of the landscape that is defined as 'Less Favoured', albeit it is recognised that approximately 50% of the Central Study Area includes land defined as 'Most favoured' and 'Not favoured', demonstrating the variety that exists within a relatively small area of landscape.

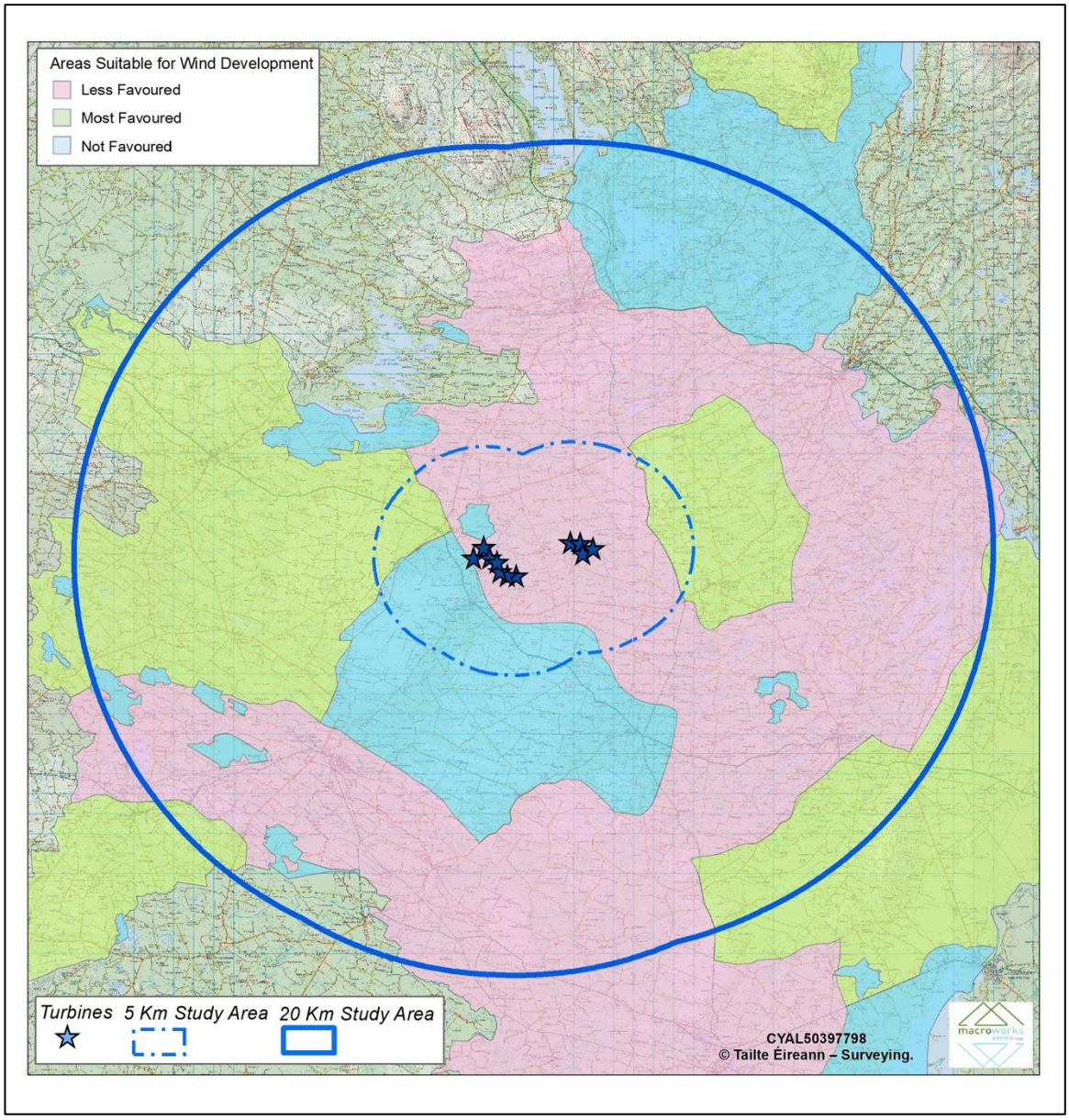

Plate 12.4: Roscommon Wind Energy Strategy showing Wind Energy suitability in relation to the location of the Project.

12.3.2.3 Scenic Amenity

Scenic views and routes in County Roscommon that fall within the Study Area, are considered relevant (refer **Plate 12.5**). Those that fall within the Study Area include Scenic Views 3-16, and 26, and Scenic Routes R3-R6. An analysis of these in terms of their relevance to the assessment is provided in **Table 12.6**.

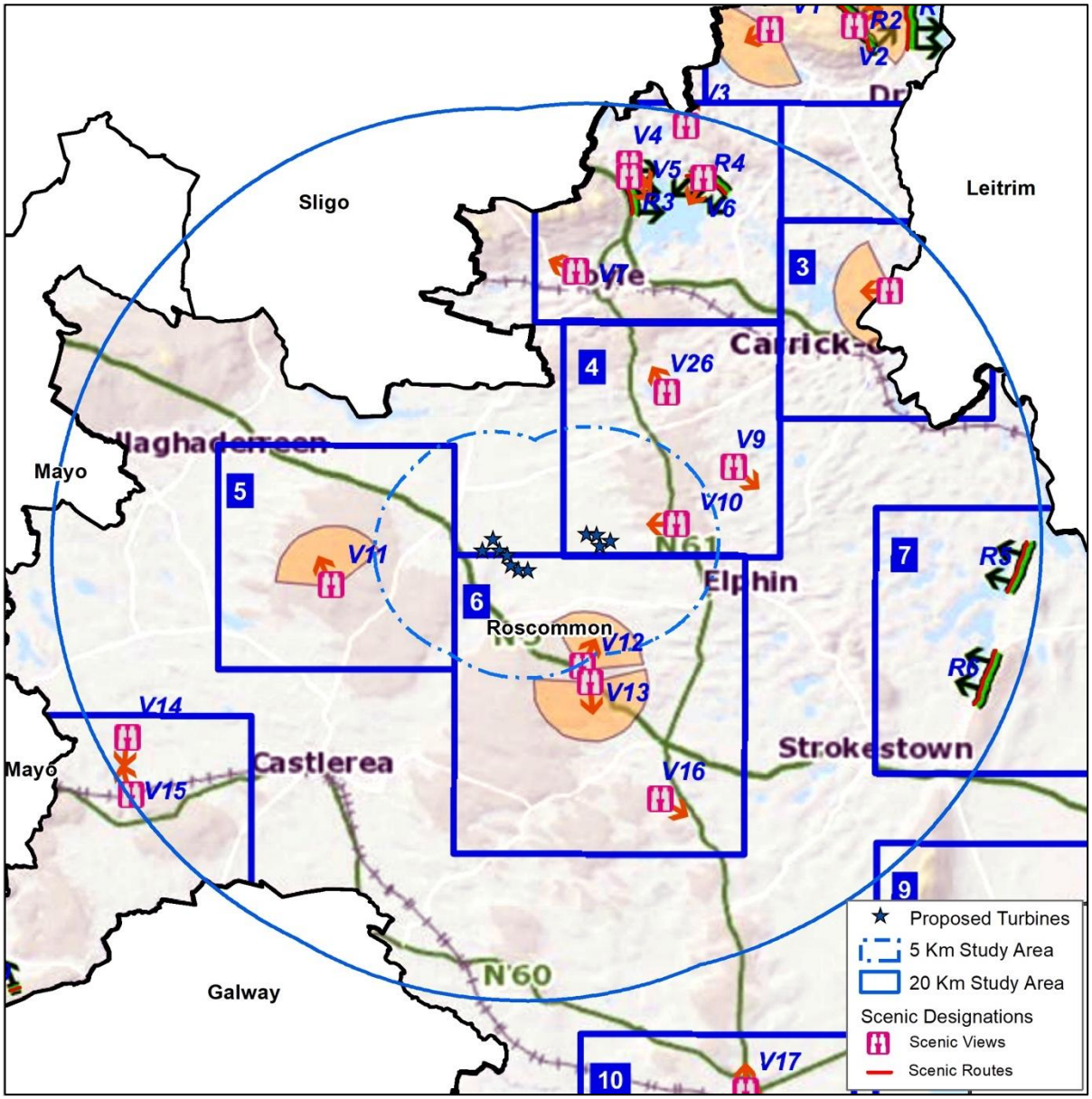

Plate 12.5: Scenic Routes and Views from the Roscommon Landscape Character Assessment

12.3.2.4 Sligo County Development Plan 2024-2030

The Sligo CDP, does not contain a Landscape Character Assessment of the traditional form that objectively identifies geographically distinct landscape character units. Instead, it

includes a landscape characterisation and appraisal study that classifies the County according to its visual sensitivity and capacity to absorb new development without compromising the scenic character of certain areas. It identifies 'Normal Rural landscapes', 'Sensitive Rural landscapes', 'Visually Vulnerable' linear features such as ridgelines and coastlines.

It should be noted that the Landscape Characterisations provided within the Sligo CDP are essentially landscape sensitivity areas/ features and are not derived from landscape character per se. The three classes of landscape 'characterisation' are described below:

- Sensitive Rural Landscapes - are defined as; "areas that tend to be open in character, highly visible, with intrinsic scenic qualities and a low capacity to absorb new development – e.g. Knocknarea, the Dartry Mountains, the Ox Mountains, Aughris Head, Mullaghmore Head etc".
- Visually Vulnerable Areas are defined as; "distinctive and conspicuous natural features of significant beauty or interest, which have extremely low capacity to absorb new development – examples are the Ben Bulben plateau, mountain and hill ridges, the areas adjoining Sligo's coastline, most lakeshores etc".
- Normal Rural Landscapes are defined as; "areas with natural features (e.g. topography, vegetation) which generally have the capacity to absorb a wide variety of new development forms- these are largely farming areas and contain most of the County. At the same time areas located within Normal Rural Landscape may have superior visual qualities related to, due to their specific topography, vegetation pattern the presence of traditional farming or residential structure. These areas may have limited capacity for development or may be able to absorb new development only if it is only if it is design to integrate seamlessly with the existing environment.

In the context of the Study Area, much of the landscape falls within the 'Normal Rural Landscape, with the 'Visually Vulnerable Areas' relating to the shores of Lough Gara, and the elevated landscape around both the Curley and Bricklieve Mountains to the north. The 'sensitive rural landscapes' relate to the areas of raised bogs and comparatively elevated landscape west of Lough Gara.

12.3.2.5 Sligo Scenic Designations

In addition to landscape characterisations, the map excerpt also shows designated scenic routes with the nearest of these relating to routes through and to the west/north of Lough Gara, a loop drive to the north east around Derrinaghran (taking in Wynne's View), and then

more elevated locations on the R295 to the north east where views are over the wider landscape, at its interface with the Bricklieve Mountains.

12.3.2.6 Leitrim County Development Plan 2024-2030

Although the proposed Project is entirely located in County Roscommon, the north-eastern extent of the Study Area is contained in County Leitrim. Thus, it is important to consider landscape related policies and designations within County Leitrim, noting that the nearest areas in County Leitrim to the proposed wind farm site are over c. 15km to the northeast.

A Landscape Character Assessment (LCA) for County Leitrim is included in Appendix VII of the current Leitrim CDP. The LCA review identifies 17 contrasting LCTs within County Leitrim and a further 14 LCAs. That part of Leitrim that falls within the Study Area falls within LCT 9 – Drumlin Farmland, and within LCA 13 - South Leitrim Drumlins and Shannon Basin and LCA 14 – Corrida Uplands.

The Landscape Assessment for Leitrim also includes landscape designations throughout the county, which include 'Areas of Outstanding Natural Beauty' and 'Areas of High Visual Amenity'. One 'Areas of High Visual Amenity' occurs within the Study Area, namely B11 – River Shannon, Derrycame and Environs.

Given the patchy and distant nature of any visibility from that part of County Leitrim that falls within the Study Area, a proportionate focus is maintained on the more proximate landscape.

Scenic Views 23, 27, and 28 also fall within the Study Area, but outside the ZTV pattern, with no potential for views. The primary orientation of these views is away from the site.

12.3.2.7 Mayo/Galway County Development Plans

Given the extent of the Study Area that would be potentially influenced by the Project, and the distance at which the turbines may be seen (over 17km), it is not considered that indirect effects on landscape character, or visual effects, have the potential to be notable. Again, a proportionate focus is maintained on the more proximate landscape, and particularly that of the Central Study Area.

12.3.3 Visual Baseline

12.3.3.1 Zone of Theoretical Visibility (ZTV)

Only those parts of the Study Area that potentially afford views of the Project are relevant to this part of the assessment. Therefore, the first part of the visual baseline is establishing a ZTV and subsequently, identifying visual receptors on which to base the visual impact assessment.

A computer-generated ZTV map has been prepared to illustrate where the proposed turbines are potentially visible. The ZTV map is based on the tallest vertical elements (i.e. not features such as the substation), and based solely on terrain data (bare ground visibility), ignoring features such as trees, hedges, or buildings, which may screen views. Given the nature of the topography in parts of the landscape, and the combined influence of successive layers of vegetation throughout the landscape, the main value of this form of ZTV mapping is to determine those areas from which the Project will not be visible, such as to retain a proportionate focus on locations where there is potential for visibility.

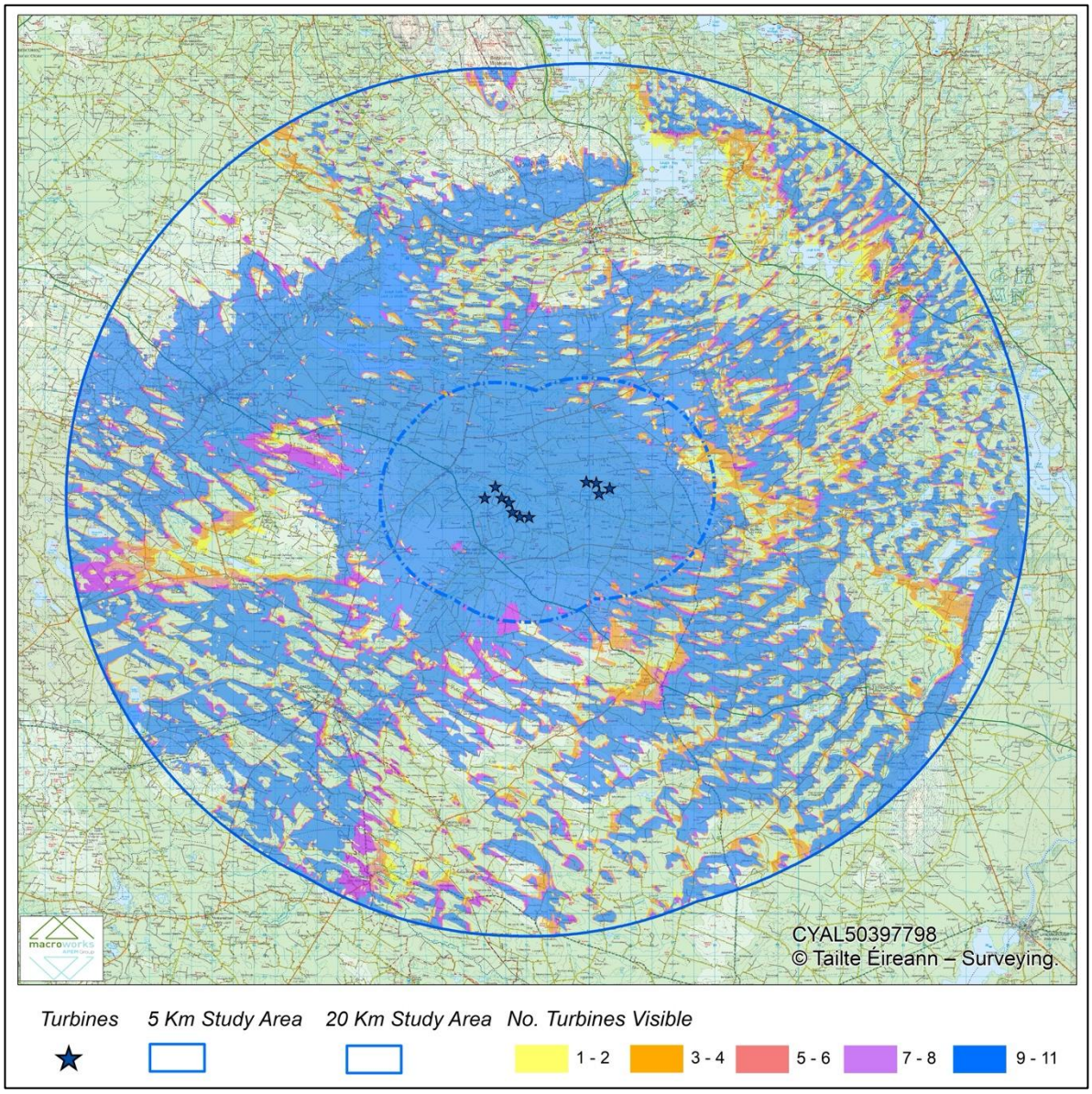

Plate 12.6: Bare-ground ZTV Map based on 185m tip height (See Figure 12.2 for larger scale map)

The following key points are illustrated by the 'bare-ground' ZTV map (**Plate 12.6** refers). Given the topographical characteristics of the wider drumlin landscape, theoretical visibility beyond approximately 7km becomes more patchy and sporadic. Large areas of the Wider Study Area to the north and south fall outside of the ZTV pattern, as influenced by a fall in topography associated with the river drainage basins. This pattern follows the general landscape pattern of a 'shallow broad basin'. To the northwest (the lower section of the basin) there is more consistent lack of theoretical visibility than in locations to the east, south and southwest, where theoretical visibility is concentrated on undulating drumlin hills.

Within the Central Study Area, the relatively flat to low rolling landscape characteristics generate comprehensive theoretical visibility, particularly within the nearest 7km.

The settlements of Frenchpark, Bellanagare and Ballinameen all fall within the ZTV pattern and views are theoretically possible. The ZTV pattern is more marginal and sporadic in relation to Tulsk and Elphin/Nuns Lane due to the rolling terrain that contains the settlement. The most important point to reiterate with respect to this 'bare-ground' ZTV map is that it is theoretical, and as such it is it is important to acknowledge the limitations of their use.

A key limitation is that they do not communicate the 'degree' to which the development is theoretically visible. This is an important consideration given that the ZTV pattern shows locations where only a small part of the development may be visible in the same way as locations where it may be visible more comprehensively. Any development, including wind energy developments, has the potential to be screened by intervening or surrounding vegetation (e.g., roadside hedgerows), as well as buildings, walls, and embankments in proximity to the viewer, resulting in a much lesser degree of actual visibility. The degree to which the development is visible is also influenced by distance, the turbines becoming a progressively small part of wider views.

Another key limitation is that the ZTV plans assume that climatic visibility is 100%. Mist, fog, rain, and snow are all common weather occurrences and would regularly restrict or influence visibility, with this being an incrementally more significant factor with distance from the site.

For these reasons, the ZTV represents a worst-case scenario of what is already an entirely theoretical projection.

12.3.3.2 Views of Recognised Scenic Value

Views of recognised scenic value are primarily indicated within CDPs in the context of scenic views/route designations, but they might also be indicated on touring maps, guidebooks, roadside rest stops or on postcards that represent the area. The relevant scenic designations (views, prospects, and scenic routes) contained in the various CDPs throughout the Study Area have been identified, and all of those that fall within the 20km Study Area have been identified in **Table 12.6**.

There are numerous scenic routes/views throughout the Study Area, and a critical analysis of these scenic views/routes has been undertaken to determine their relevance to the assessment of visual effects.

As will be explained later in the assessment, VRP's (also referred to as viewpoints) have been used to study the landscape and visual impact of the Project in detail. With the need to maintain a proportionate focus on potentially significant effects, those that fall outside the ZTV pattern and therefore have no potential for views have been discounted.

Of those that that fall inside the ZTV pattern the analysis considers the potential for visibility as a result of screening elements, as informed by desk and field based analysis. It also considers the primary aspect of the view that forms part of the designation, the context of the view (including existing wind energy development context), and the distance at which visual impacts would be experienced, these factors informing whether effects have potential to be significant.

Where visibility is likely to occur and the visual impacts of the development need to be understood, a VRP has been selected. The analysis is presented in **Table 12.6**.

Table 12.6: Rationale for selection of scenic designations within the relevant County Development Plans

Scenic Reference	Relevance to assessment	Represented by VRP
Roscommon CDP 2022-2028		
View 3	Not Relevant - Outside of ZTV pattern	-
View 4	Not Relevant - Outside of ZTV pattern	-
View 5	Not Relevant - Outside of ZTV pattern	-
View 6	Not Relevant - Outside of ZTV pattern	-
View 7	**Discounted** - View located in edges of ZTV pattern with the primary aspect orientating northwest and away from the site.	-
View 8	**Discounted** - View located in edges of ZTV pattern with the primary aspect orientating northwest and away from the site.	-
View 9	**Discounted** - View located in edges of ZTV pattern with the primary aspect orientating southeast and away from the site.	-
View 10	**Relevant** - View oriented in the direction of the Project, with views considered possible.	VRP11

Scenic Reference	Relevance to assessment	Represented by VRP
View 11	**Discounted** - Primary aspect orientating northwest and away from the site.	-
View 12	**Relevant** - View oriented broadly in the direction of the Project, with views considered possible.	VRP16
View 13	**Relevant** - Whilst the primary aspect of the view is to the south, this is an important location with panoramic views.	VRP17
View 14	**Discounted** - Primary aspect orientating south and away from the site. Unlikely to generate notable effects at over 19km distance. Effects generally represented by closer viewpoints.	-
View 15	**Discounted** - Primary aspect orientating north and away from the site. Unlikely to generate notable effects at over 20km distance. Effects generally represented by closer viewpoints.	-
View 16	**Discounted** - Primary aspect orientating southeast and away from the site. Views represented by nearby VRP19.	VRP19
View 26	**Discounted** - View located in edges of ZTV pattern with the primary aspect orientating northwest and away from the site.	-
Route R3	Not Relevant - Outside of ZTV pattern	-
Route R4	Not Relevant - Outside of ZTV pattern	-
Route R5	**Relevant** - View oriented in the direction of the Project, with views considered possible.	VRP20
Route R6	**Relevant** - View oriented in the direction of the Project, with views considered possible.	VRP20
Sligo County Development Plan 2024-2030		
Route 21, 70, 116	**Relevant** - Located within the ZTV with broad views over the wider landscape to the south.	VRP25
3, 5, 20, 57, 58, 60, 64	Not Relevant - Outside of ZTV pattern	-
Route 68	**Relevant** - Whilst a focus is with Lough Gara in the opposite direction to the site, it is located within the ZTV.	VRP23
Leitrim County Development Plan 2023-2029		
View 23	Not Relevant - Outside of ZTV pattern	-
View 27	Not Relevant - Outside of ZTV pattern	-
View 28	Not Relevant - Outside of ZTV pattern	-

12.3.3.3 Identification of Viewshed Reference Points as a Basis for Assessment

The results of the ZTV analysis provide a basis for the selection of VRP's, which are the locations used to study the landscape and visual impact of the Project in detail. It is not warranted to include every location that provides a view of the Project, as this would result in an unwieldy report and make it extremely difficult to draw out the key impacts arising from

the Project. Instead, a variety of receptor locations were selected that are likely to provide views of the Project from different distances, different angles and different contexts.

The visual impact of a Project is assessed using up to 6 categories of receptor type as listed below:

- Key Views (from features of national or international importance);
- Designated Scenic Routes and Views;
- Local Community views;
- Centres of Population;
- Major Routes; and
- Amenity and heritage features.

Where a VRP might have been initially selected for more than one reason, it will be assessed according to the primary criterion for which it was chosen. The characteristics of each receptor type vary, as does how the view is experienced. These are described below.

Key Views (KV)

These VRPs are at features or locations that are significant at the national or even international level, typically in terms of heritage, recreation or tourism. They are locations that attract a significant number of viewers who are likely to be in a reflective or recreational frame of mind, possibly increasing their appreciation of the landscape around them. The location of this receptor type is usually quite specific.

Designated Scenic Routes and Views (DSR)

Due to their identification in the CDP, this type of VRP location represents a general policy consensus on locations of high scenic value within the Study Area. These are commonly elevated, long-distance, panoramic views and may or may not be mapped from precise locations. They are more likely to be experienced by static viewers who seek out or stop to take in such vistas.

Local Community Views (LCV)

This type of VRP represents those people who live and/or work in the locality of the Project, usually within a 5km radius of the Site. Although the VRPs are generally located on local level roads, they also represent similar views that may be available from adjacent houses. The precise location of this VRP type is not critical; however, clear elevated views are preferred, particularly when closely associated with a cluster of houses and representing

their primary views. Coverage of a range of viewing angles using several VRPs is necessary to sample the spectrum of views that would be available from surrounding dwellings.

Centres of Population (CP)

VRPs are selected at centres of population primarily due to the number of viewers that are likely to experience that view. The relevance of the settlement is based on the significance of its size in terms of the Study Area and/or its proximity to the Site. The VRP may be selected from any location within the public domain that provides a clear view either within the settlement or in close proximity to it.

Major Routes (MR)

These include national and regional level roads and rail lines, and are relevant VRP locations due to the number of viewers potentially impacted by the Project. The precise location of this category of VRP is not critical and might be chosen anywhere along the route that provides clear views towards the Site, but with a preference towards close and/or elevated views. Major routes typically provide views experienced whilst in motion, and these may be fleeting and intermittent depending on screening by intervening vegetation or buildings.

Tourism, Recreational and Heritage Features (AH)

These views are often one and the same, given that heritage locations can be important tourist and visitor destinations and amenity areas or walking routes are commonly designed to incorporate heritage features. Such locations or routes tend to be sensitive to development within the landscape as viewers are likely to be in a receptive frame of mind with respect to the landscape around them. The sensitivity of this type of visual receptor is strongly related to the number of visitors they might attract and, in the case of heritage features, whether these are discerning experts or lay tourists. Sensitivity is also heavily influenced by the experience of the viewer at a heritage site as distinct from simply the view of it. This is a complex phenomenon that is likely to be different for every site. Experiential considerations might relate to the sequential approach to a castle from the car park or the view from a hilltop monument reached after a demanding climb. It might also relate to the influence of contemporary features within a key view and whether these detract from a sense of past times. It must also be noted that the sensitivity rating attributed to a heritage feature for the purposes of a landscape and visual assessment is not synonymous with its importance to the Archaeological or Architectural Heritage record.

The VRPs selected in this instance are set out in **Table 12.7,** and their location and orientation are shown on **Plate 12.7** and the Map in the photomontage booklet. They have all been selected based on relevant guidance and best practice.

Table 12.7: Outline description of selected Viewshed Reference Points

VRP	Location	Receptor type	Distance (km)	Direction of view
1	Cloonshanville Dominican Friary, Cloonshanville	LCV, AH	1.3 (T2)	E-SE
2	N5, Frenchpark	LCV, CP, MR	1.4 (T1)	E-SE
3	Local road, Townland of Ballaghcullia	LCV	1.3 (T10)	N-E
4	Drummin Cemetery L5642, Bellanagare	LCV, CP, AH	2 (T10)	N-NE
5	Local road, Carrigeenacreeha	LCV	0.67 (T5)	NW-NE
6	L1217/L5601 crossroads at Brackloon/ Cloonkerin	LCV	1.5 (T4)	E & W
7	Church of the Holy Trinity, Kilnamryall, Edenan and Kinclare	LCV, AH	1.4 (T8)	NW-W
8	Local Road, Clogher Beg	LCV	3.1 (T7)	N-NW
9	Local Road, Carrowncully	LCV	1.2 (T6)	S-SW
10	R370 at Ballinameen	LCV, MR	3.3 (T4)	SE-SW
11	N61 at Carrowkeel, Roscommon Protected View 11	DSR, LCV,	3 (T8)	SW
12	R369, Elpin, War of Independence Monument	CP, MR, AH	5.3 (T8)	NW
13	Kilmanagh Cemetery near the R361	LCV, AH	4 (T2)	SE
14	Fairymount Cemetery, Barnahalla	AH	7 (T1)	NE
15	Local Road off the L1221, Tully	LCV	5.1 (T1)	NE
16	Rathmore (or Ráth Mór) Mound, Roscommon Protected View 12	KV, DSR, AH	5 (T5)	N-NW
17	Rathcroghan (or Ráth Crúachan) Mound, Roscommon Protected View 13	KV, DSR, AH	5.9 (T5)	N-NW
18	N5, Tulsk, Sts. Eithne and Fidelma	CP, MR	10 (T5)	NW
19	L6096 near Carns archaeological site, Roscommon Protected View 16	DSR	11.8 (T7)	NW
20	R371 Derryvane, Roscommon Protected Route R5/6	DSR	18.5 (T8)	NW
21	R377, Castlerea	CP, MR	12.3 (T1)	NE

VRP	Location	Receptor type	Distance (km)	Direction of view
22	L1403, Croghan	CP	7 (T8)	SW
23	L1703 at Lough Gara, Sligo Scenic Route 68	DSR	8.4 (T1)	SE
24	Lung Lough Gara Way, N5, Ballaghadereen	CP, MR, AH	13.8 (T1)	SE
25	Wynne's View, Sligo Scenic Route 70	DSR, AH	13.7 (T2)	S-SE

**Key Views (KV) / Designated Scenic Routes and Views (DSR) / Local Community views (LCV) / Centres of Population (CP) / Major Routes (MR) / Amenity and heritage features (AH)*

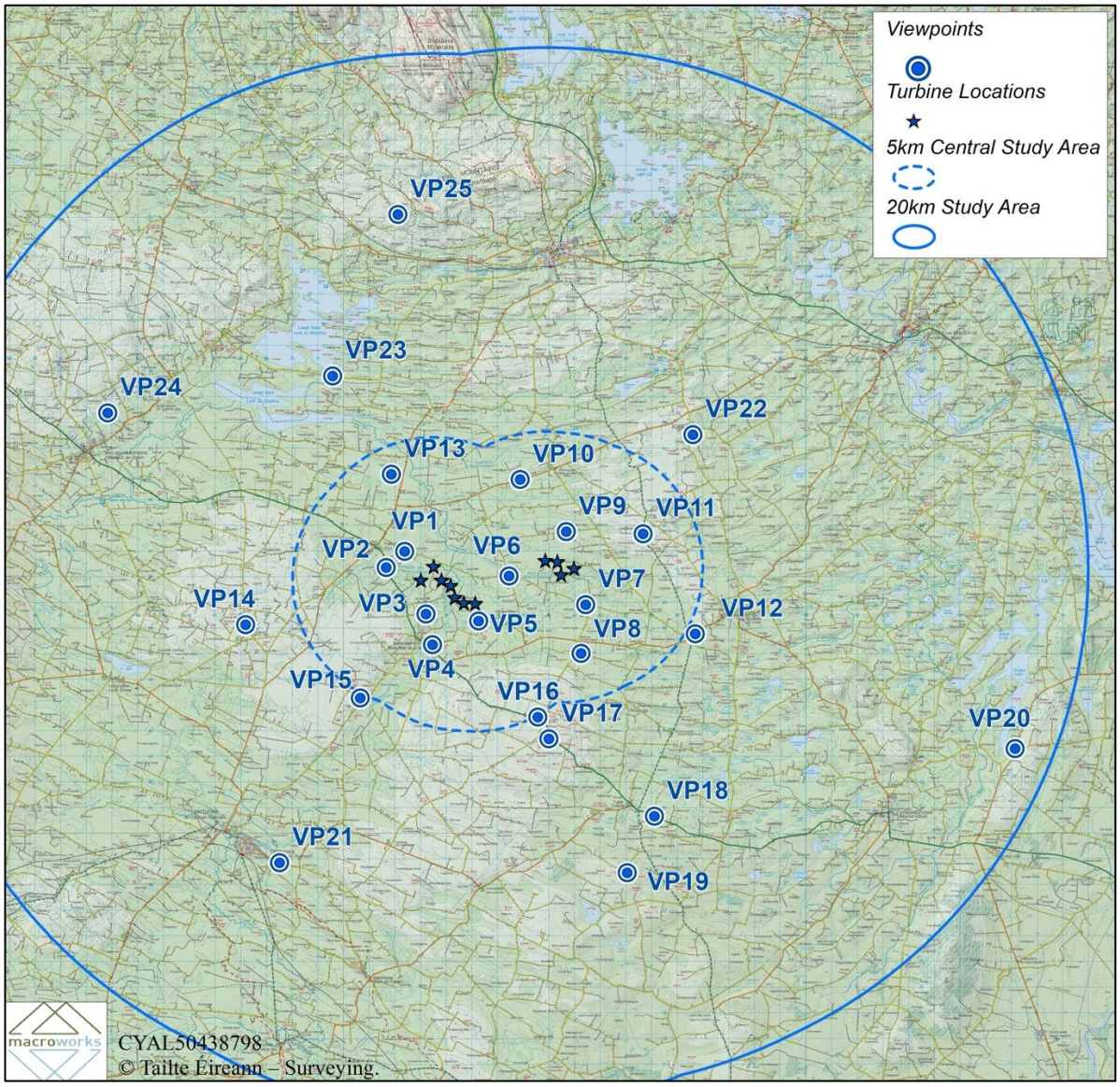

Plate 12.7: Map showing selected VRPs within the Study Area. (See Figure 12.1 for larger scale map)

12.3.4 Cumulative Baseline

Within the Study Area, there are numerous existing/operational wind energy developments. Full details are outlined in **Table 2.1** in **Chapter 2: Project Description,** but those that occur within the Wider Study Area include:

- Leam Wind Farm (2 turbine scheme approximately 6.8km to the north/ northeast);
- Roosky Wind Farm (2 turbine scheme approximately 13.6km to the northwest);
- Largan Hill Wind Farm (13 turbine scheme approximately 15.1km to the northwest);
- Islandmore Wind Farm (10 turbine scheme approximately 15.3km to the northwest);
- Riverstown Single Turbine (1 turbine scheme approximately 19.2km to the northwest);
- Ballyfeeny Green Energy Wind Farm (6 turbine scheme approximately 19.4km to the southeast); and
- Sliabh Bawn Wind Farm (20 turbine scheme approximately 19.4km to the southeast).

A Baseline cumulative ZTV map is provided in **Plate 12.8** (and included in **Figure 12.3** at a larger scale) that illustrates these schemes.

Whilst wind energy development is not widespread throughout the Study Area, wind energy development is present and visible from a large proportion of the Study Area, with turbines a recurring element in views from much of the landscape.

12.4 ASSESSMENT OF POTENTIAL EFFECTS

12.4.1 Do Nothing Effects

12.4.1.1 Evolution of the baseline

In advance of identifying the potential landscape and visual effects of the Project, it is considered relevant to consider the changes that are likely to occur in the landscape over time in its absence. From a landscape and visual perspective, there are many political, economic, social and environmental factors that may influence the baseline landscape and visual environment in the longer term, and being accurate in how these may individually, or in combination, influence the baseline landscape and visual environment is problematic.

In terms of wind energy development, the Site is contained within the 'Less Favoured' area of suitability for wind energy, as categorized within the Roscommon Renewable Energy Strategy. Whilst sensitivities within the landscape need to be taken into account, wind energy development is still considered a potential land use, and the landscape context may become further influenced by other wind energy developments.

The main influences on the future landscape and visual environment are considered to pertain to the impacts of climate change and the character of vegetation in the landscape. Large tracts of this landscape plays host to blocks of woodland and commercial forestry, with the prevailing agrarian landscape being defined by a framework of hedgerows, small woodland copses and belts of vegetation. The most notable change in this regard is considered to relate to the large tracts of peatland and cutaway peatland. These landscapes comprise a variety of different vegetative habitats including heath and scrubland, with pockets of woodland naturally regenerating, and the edges being influenced by large tracts of conifer plantation.

Climate change together with the natural ongoing maturation of vegetation, is likely to influence vegetation cover, whether as a result of biological pests and pathogens, or rainfall patterns, albeit the lack of certainty means that identifying likely changes is problematic. Vegetation management is also likely to influence the character of the landscape, such as large-scale felling and replanting activities associated with commercial forestry activities. Changes to agricultural uses of land throughout the landscape may occur over time, subject to a variety of external factors. All change in this regard is likely to be localised in its influence and would be consistent with this type of landscape change across Ireland, rather than being specific to this locality.

Other development pressures are difficult to accurately predict, but like many similar landscape contexts, it is very likely that the landscape will be subject to ongoing development pressure and that the landscape will incrementally change as a result of it. Accurately predicting this change is problematic and subject to a variety of external factors, but is inherently controlled through the planning process. The focus of urban pressure is likely to relate to larger built-up areas, and whilst domestic scale change is likely to occur throughout the landscape, this is not considered to have the potential to significantly alter the character of the wider landscape.

In this instance, it is considered that the receiving landscape and visual baseline would remain in the same or similar condition as it is currently.

12.4.1.2 Do Nothing Effects

The 'do-nothing' effect refers to the non-implementation of the Project. The primary effect of this would be that the impacts and effects identified would not directly occur. In this regard, the Site would continue to be managed for forestry and agriculture, interspersed with areas of peatland that may continue to be used for peat harvesting; however, the EPA

has issued a 2025 report highlighting Roscommon a location of illegal cutting, and, as such, regulations may be reviewed.

12.4.2 Landscape Effects

Landscape effects are assessed on the basis of landscape sensitivity weighed against the magnitude of change, both in terms of impacts of the Project on the physical landscape within the Site, and impacts on landscape character within the wider landscape setting. This wider setting is considered with respect to the Central Study Area (<5 km) as well as the Wider Study Area (5-20km).

12.4.2.1 Landscape Sensitivity

Landscape value and sensitivity are considered in relation to a number of factors that accord with GLVIA3, which are set out below and discussed relative to the Central and Wider Study Area.

Central Study Area (Approximately <5km)

The Site is part of a landscape dominated by large expanses of peatland, cutaway peatland, forestry, and marginal farmland. The Central Study Area is a robust, rural, and highly modified landscape with an anthropogenic character. Whilst it has a pleasant rural aesthetic, landscape values reflect the longstanding human interaction with this landscape over time, rather than being explicitly informed by naturalistic qualities and values. It is a working landscape, that is extensively influenced by typical productive rural landscape activities, land uses, and industries.

The Site is located within an area classified as having 'Moderate' landscape value, which, as outlined in the Roscommon Landscape Character Assessment, "tend to be less sensitive and are therefore more tolerant of change." Much of the Central Study Area is also classified as having 'Moderate' landscape value, however some segments within the south-western extent of the Central Study Area are classified as having 'High' landscape value and 'Exceptional' landscape value, which relate to a broad area of raised bog and an area containing sites of archaeological landscape heritage, such as Rathcroghan, respectively. Though these areas themselves are more sensitive to development, landscape character is influenced by existing development and anthropogenic land uses within the surrounding landscape.

In those parts of the landscape such as associated with areas of raised bog, and the archaeological landscape around Rathcroghan, where the landscape has a comparatively

higher scenic and cultural value due to its open and elevated character, landscape sensitivity is higher ranging at High and High-Medium. However, on balance of the reasons outlined, the overall landscape sensitivity of the Central Study Area is deemed to be **Medium**.

Wider Study Area (c.5-20km)

In terms of the Wider Study Area, many of the points raised in relation to the Central Study Area are considered to remain relevant. Whilst it encompasses a diverse range of landscape features and characteristics, the landscape remains a rural, working, inhabited landscape that is underpinned by typical rural land uses, and which displays extensive signs of human influence, including major road corridors such as the N4, N5, N60, and N61, and the towns and villages located throughout the Wider Study Area.

Again, much of this wider landscape is classified as having 'Moderate; landscape value and therefore Medium-Low sensitivity; however, like the Central Study Area, the Wider Study Area contains areas classified as having 'High', 'Very High', and 'Exceptional' landscape value, again reflecting a comparatively high sensitivity as a result of their geomorphologic, scientific, historical, cultural, recreational and amenity value and uniqueness. In addition to the landscapes outlined in the section above, this includes landscapes associated with the River Shannon Corridor, Kilglass Lakes, and Slieve Bawn to the east, the River Suck and Lough O'Flynn to the west, and Lough Key, the Boyle River Corridor, and the Curlew Mountains to the north.

Whilst these areas of the landscape are recognised for their inherent amenity values, they are influenced by a wider landscape that is extensively influenced by anthropogenic land uses and by existing wind energy development.

On balance of the reasons outlined above, while these more unique or sensitive landscapes are considered to have a comparatively high landscape sensitivity (High and High-Medium) as a result of their comparative scenic, recreational, and heritage values, the overall landscape sensitivity of the Wider Study Area is deemed to retain an underlying **Medium** sensitivity.

12.4.2.2 Construction Phase Effects on the Physical Landscape

It is considered that the Project will have a modest physical effect on the landscape within the Site, with land disturbance being localised and relatively limited.

Disturbance to existing vegetation to accommodate the required Access Tracks, Temporary Construction Compounds, and Turbine Hardstand areas will largely relate to areas that are not readily discernible from locations beyond the immediate locality. There will be some felling of trees within blocks of commercial forestry. Topsoil and surface vegetation excavated during the construction works will be used for on-site grading, and disturbed areas of vegetation will be subject to reinstatement post-construction.

Whilst there will be changes to topography through excavation, stockpiling, the creation of temporary hardstand areas and other features, these works are temporary and localised to the immediate locality of the turbines and Access Tracks. Excavations will tie into existing ground levels and will be the minimum required for efficient working. Any temporary excavations or stockpiles of material will be regraded to marry into existing site levels and reseeded appropriately in conjunction with advice from the Project ecologist.

There will be an intensity of construction phase activity associated with the Access Tracks and Turbine Hardstands, consisting of the movement of heavy machinery and materials, but this will be temporary/short-term in duration.

All Internal Cabling will be underground and will run under Access Tracks or within their verges without the need for trenching through open ground. Indeed, the land cover of the Site will only be interrupted as necessary to build the structures of the Project and to provide access. Directional drilling will be employed where required to avoid impact on watercourses. Impacts from land disturbance at the Site are considered to be modest in the context of this landscape setting that is influenced by an array of working rural land uses. Impacts from vegetation loss are considered in the context of the broad scale of this landscape setting and the ongoing felling and replanting activities that typify areas containing large scale commercial forestry activities.

Whilst there will be some long-term/permanent construction phase effects on the physical landscape, these are localised in extent. During decommissioning, excepting some residually useful Access Tracks, all other development features will be removed from the Site, and the land reinstated/restored. The exception to this is the 110kV Onsite Substation, which will be an ESBN asset.

In view of the construction phase effects of the Project on landscape features, and the reinstatement of vegetative features lost, effects are considered substantially reversible. It is not considered that the Project will generate significant effects on landscape features during the construction phase.

12.4.2.3 Construction Phase Effects on Landscape Character

During construction, the erection of the proposed turbines, and the associated activity and movement associated with tall lifting plant, would introduce additional vertical features into views. As per the construction programme outlined in **Chapter 2: Project Description**, construction-related activity will be short-term in nature (in accordance with the EPA definition of impact duration) and will cease once the Project becomes fully operational. Whilst these activities will generate temporarily heightened visual effects, their influence on perceived landscape character is considered modest in the context of movement that occurs throughout this landscape along road networks, and that associated with an operational wind farm. As such a greater proportional focus is placed on the long-term effects of the operation of the wind turbines on landscape character.

However, it is recognised that site activity will be at its greatest during the construction phase due to the operation of machinery on site and the movement of vehicles to and from the Site, and that the activities and works taking place at ground level have the potential to impact landscape character at a localised level. Works associated with the Turbine Delivery Route, infrastructure foundations, On-site Substation, Wind Farm underground cable installation, groundworks (including the excavation, stockpiling, deposition, and reinstatement of site-won material), and landscape works, will generate activity and disturbance that will influence scenic/recreational values of the surrounding roads, and contrast the underlying agrarian characteristics of the landscape.

With the exception of the construction of the new proposed site access road along the N5 and non-temporary widening works along the N5 and L1217, these works are short term, and temporary in nature (albeit acknowledging that reinstated landscape works will take time to fully mature), and localised in extent. The effects would cease as soon as the turbines have been erected and become operational.

The magnitude of landscape impact in relation to these activities at the construction phase is deemed to be no greater than Medium-Low, which, when combined with a Medium sensitivity, results in a **Moderate-Slight** level of landscape effect.

In those parts of the landscape such as associated with the archaeological landscape around Rathcroghan, where the landscape has a comparatively higher scenic and cultural value due to its open and elevated character, the Medium-Low magnitude of landscape impact combined with a High sensitivity, will result in no greater than a **Moderate** level of landscape effect, this relating specifically to that part of the construction phase when

turbines are being assembled, and materialising in views. Ground level construction activities will not be visible from this part of the landscape.

Impacts relating to more sensitive parts of the landscape relate more to the sensitivity of the location than to the magnitude of change, and the indirect influence of wider anthropogenic land use on the character of these areas is noted. Effects to landscape character during the construction phase are considered **Not Significant**.

12.4.2.4 Operational Phase Effects on Landscape Character

For most commercial wind energy developments, the greatest potential for landscape impacts occurs as a result of the change in character of the immediate area due to the introduction of tall structures with moving components. Thus, wind turbines that may not have been a characteristic feature of the area become a defining element of that landscape character.

In this instance, whilst wind turbines are not currently part of the landscape character within the Central Study Area, wind turbines are a familiar feature within the Wider Study Area, and are visible from many parts of both the central and Wider Study Area.

In terms of scale, the large-scale nature of the Site's landscape context and the scale of the nearby areas of forestry help to contextualise the scale of the turbines and assimilate them into the landscape. In terms of function, the landscape has a utilitarian character due to the presence of working rural land uses such as agriculture, forestry, and peat extraction. Although the Project inherently represents a stronger human presence and level of built development than currently exists on the Site, it will not detract significantly from the rural working character of this landscape. An understanding of these other land uses will remain a key part of the landscape experience.

Although the Project will influence the scenic properties of the landscape, the spacing afforded between the turbines will maintain a high degree of visual permeability to ensure that the underlying characteristics of the landscape will remain visible and part of the landscape experience.

The influence of the Project on landscape character will inherently be most notable at the immediate landscape level, where their scale and form have the potential to generate considerable change to the character of the landscape. However, the influence this will have on landscape character will be modest, given the scale of the underlying landscape. With distance the comparative influence of the Project reduces.

Within the Central Study Area and in relation to the Site and its immediate environs (within approximately 1km), the magnitude of change to landscape character is deemed to be Medium. When combined with a Medium sensitivity, the level of landscape effect is considered **Moderate**. Beyond this distance, the magnitude of change to landscape character will reduce to Medium-Low for the remainder of the Central Study Area. When combined with a Medium sensitivity, the resulting level of landscape effect is deemed **Moderate-Slight**.

In those parts of the landscape such as associated with the archaeological landscape around Rathcroghan, where the landscape has a comparatively higher scenic and cultural value due to its open and elevated character, the Medium-Low magnitude of landscape impact combined with a High sensitivity, will result in a **Moderate** level of landscape effect. Within the Wider Study Area beyond 5km, the magnitude of change to landscape character will reduce as the proposed turbines become a more distant and partially visible element in wider views. Whilst visible, they would be generally be seen partially, and as a small component element in a landscape context that is influenced by other wind energy developments, and extensive anthropogenic land use. In this regard, the degree to which the proposed turbines would indirectly impact perceived landscape character would become more marginal, and the magnitude of change would range would reduce from medium-Low to Low between approximately 5-10km, becoming low-negligible and less beyond this distance. When combined with a Medium sensitivity, the level of landscape effect is considered **Moderate-Slight**, reducing to **Slight** with distance.

The quality of the landscape effects is deemed Negative, and the duration of the impact is long-term.

It is important to note that in terms of duration, the Project represents a long-term (but not permanent) impact on the landscape, and is reversible. The operational lifespan of the project is 35 years, after which time it will be dismantled, apart from the ESB assets and access roads, and the landscape reinstated to prevailing conditions.

Effects to landscape character during the operational phase are considered **Not Significant**.

12.4.2.5 Decommissioning Phase Effects on Landscape Character

With the potential exception of Access Tracks that may be left in situ for use within commercial forestry and agriculture activity in the area, the decommissioning phase will see

the removal of all turbines and infrastructure from the Site, with areas of hard standing that are of no further use allowed to revegetate naturally. The On-site Substation and Grid Connection will be under the ownership of ESB Networks and will form a permanent part of the national grid infrastructure, and will therefore be left in-situ.

It is expected that the decommissioning phase will be completed within one year and that within a relatively short period of time following decommissioning (approximately 2-3 years) there will be little evidence that a wind farm was present.

The decommissioning phase will see a similar nature of effects to the construction phase, primarily as a result of the removal of turbines and the movement of large turbine components away from the Site. There may be minor disturbance to roadside and trackside vegetation that has grown during the operational phase, and temporary stockpiling of material, although these aspects would be temporary and readily reinstated.

As with construction phase impacts, decommissioning phase visual effects are considered **Not Significant**.

12.4.2.6 Landscape Effects Conclusion

With regard to the Roscommon CDP, the proposals have sought to consider the Key Recommendations for LCA 20. Considering the policy and policy objectives outlined in the CDP, it is noted that the LVIA does not identify any significant landscape effects arising from the Project.

12.4.3 Visual Effects

Visual effects are assessed as a function of the sensitivity of the visual receptor weighed against the magnitude of change in the view, determined through professional judgment, as informed by the significance matrix in **Table 12.4**.

In the interests of brevity and so that this chapter remains focussed on the outcome of the visual assessment (rather than full documentation of it), visual effects are discussed in relation to visual receptor groups, based on the outcome of the visual assessment that has been undertaken for each of the 25 selected representative viewpoint locations.

The selection of these viewpoints has been outlined previously, but are based on ZTV analysis, in combination with baseline studies and time spent in the field. They have been identified using professional judgement by experienced landscape practitioners, with the intent that they are representative of a range of visual receptors, and communicate the

range of effects experienced by receptors in the wider landscape, in accordance with best practice guidance.

12.4.4 Sensitivity of Visual Receptors

The landscape of the Study Area is heavily modified, and in many locations, there is a palpable sense of longstanding human intervention on the landscape. Much of the landscape has strong rural qualities and a pleasant agrarian aesthetic, as defined by its settled, 'green', working character. However, it is noted that views from all parts of the Study Area are influenced by various anthropogenic features such as forestry plantations, urban settlements, peatland extraction, major road infrastructure, and existing wind farm development.

Although the Wider Study Area hosts designated scenic routes, views and prospects that recognise the scenic value of certain parts of the landscape, the heavily modified nature of the landscape is recognised. While sense of rural remoteness is experienced in certain parts of the landscape, this modified nature restricts a sense of the naturalistic or awe in relation to the landscape when compared with an upland or mountainous landscape.

In terms of visual receptors, key differentials in terms of visual receptor sensitivity relate to the occupation of the visual receptor and whether views of the surrounding landscape are an inherent part of the experience. Static residential receptors, or those at scenic viewpoints are considered inherently more susceptible to changes in views given the nature of their interest in the landscape and its importance to the experience of it. Conversely, visual receptors who experience views transiently when travelling through the landscape on major transport routes are considered less susceptible, where road infrastructure and traffic volume draw from visual amenity. Similarly, receptors located in closer proximity to the Site are considered more susceptible to changes in views over those where views are experienced at a distance, as a result of the relative importance of the local context on views. Visual receptor sensitivity is also heightened at important scenic or heritage sites where scenic values are considered to be comparatively higher. In the context of the Study Area, this is considered most relevant to Rathcroghan and the surrounding landscape, where owing to the cultural significance of the landscape, its relative elevation and openness, visual receptors are considered to be more sensitive to changes in their view of the landscape.

In determining the value of views, it is important to recognise the context of existing views and the existence of wind turbines in the Wider Study Area. While some locations may have a comparatively higher amenity value as a result of expansive views, a comparative sense

of remoteness, tranquillity, or naturalness, or have increased historic or cultural value, the sensitivity of visual receptors to wind energy development will be somewhat moderated by the influence of existing turbines within this wider context.

The sensitivity of visual receptors within the Central Study Area and Wider Study Area is generally Medium-Low to Medium; however, there are some areas of higher sensitivity at important or designated scenic or heritage sites within the Wider Study Area. Overall, the general sensitivity of visual receptors within this robust working rural landscape is considered to be no greater than **Medium**.

Based on the site-specific factors outlined, and in accordance with the general visual receptor sensitivity considerations contained in the methodology, visual receptor sensitivity judgments are discussed below in relation to visual receptor groups.

12.4.4.1 Sensitivity of Designated Scenic Routes and Views (DSR)

As identified in the visual baseline, the relevant viewpoints are VPs 11, 16, 17, 19, 20, 23, and 25. While many of these viewpoints also represent other receptors, their primary significance in this assessment lies in their scenic designation as outlined in the relevant CDPs.

Viewpoints 16, 17, and 19 are designated Protected Views within Roscommon, associated with sites of archaeological heritage, while Viewpoint 11 is a designated Protected View within an elevated landscape. Viewpoint 20 is a Protected Route within Roscommon with views over Kilglass Lough. Viewpoints 23 and 25 are Scenic Routes within Sligo with views over the landscape associated with Lough Gara.

The sensitivity of Viewpoints 11 and 23 is considered to be **High-Medium**, as while they are pleasant and contain some scenic elements, the expansive views with which their scenic value is associated are somewhat screened by intervening vegetation in views directed towards the Project.

The sensitivity of Viewpoints 16, 19, and 25 is considered to be **High**. Viewpoints 16 and 19 are associated with sites of archaeological heritage and have scenic value, albeit from a visual receptor perspective, these sites are not considered to be the primary sites of archaeological heritage within the area from a visual receptor/visitor perspective, and compared with Rathcroghan, the perception of this archaeological significance in a contemporary sense, is more heavily influenced by the wider anthropogenic context. Long

ranging views over the wider landscape are available from Viewpoint 25, with the expansive nature of these views and features such as Lough Gara, contributing to a high scenic value. The sensitivity of Viewpoint 17 is considered to be **Very High-High**, as it is associated with the primary site of archaeological heritage within the area. The elevation and open character of this location affords 360 degree views over the wider landscape, and the comparatively open character of the immediately surrounding landscape contributes to a palpable sense of time depth, despite the numerous anthropogenic influences on views.

Overall, whilst views from these locations and routes are considered notable and with scenic value; they are strongly influenced by an underlying landscape context that is typical of a working, rural landscape that is widely influenced by anthropogenic land use.

12.4.4.2 Sensitivity of Local Community Views (LCV)

The assessment of visual sensitivity for local community views focuses on the perspectives of individuals who live, work, or travel within the Study Area. These people are most likely to experience changes in their visual amenity due to the proximity of the turbines, their potential visibility from various directions, or the turbines becoming a familiar part of their daily views. The relevant viewpoints within the Study Area include Viewpoints 1-11, 13, and 15.

The majority of the local community viewpoints are from the local road network close to residential dwellings throughout the landscape, from which the Project will be visible. The sensitivity of these views is generally considered to be no greater than Medium-Low. However, some of these locations are also representative of amenity and heritage features such as a friaries, cemeteries, and churches, major routes such as the N5 and R370, and centres of population such as Frenchpark and Bellanagare (Viewpoints 1-4, 7, 10, 11, and 13). The sensitivity of these views is considered to be no greater than **Medium**, with the exception of Viewpoint 11, which also represents views from a site of archaeological heritage and has a sensitivity of **High-Medium**.

12.4.4.3 Sensitivity of Centres of Population (CP)

Seven viewpoints were selected to represent centres of population within the Central and Wider Study Area, these being Viewpoints 2, 4, 12, 18, 21, 22, and 24. Population centres are generally considered to have mid to low levels of visual receptor sensitivity because they are built-up environments where visual change is more common and less impactful. These viewpoints are generally located on the outskirts of villages throughout the Study Area, including Frenchpark (VP2), Bellanagare (VP4), Tulsk (VP18), and Croghan (VP22),

though some are located on the outskirts of towns such as Elphin (VP12), Castlerea (VP21), and Ballaghadereen (VP24). These also represent local community views, views from amenity and heritage features, and views from major routes.

Considering the comparatively urban/built context at these locations, visual sensitivity is considered to be **Medium-Low**, albeit where some of these viewpoints also represent amenity and heritage features, sensitivity is considered **Medium**.

12.4.4.4 Sensitivity of Major Routes (MR)

These include national and regional level roads and are relevant VRP locations due to the number of viewers potentially impacted by the Project. Major routes typically provide views that are experienced transiently whilst in motion, and these may be fleeting and intermittent depending on screening by intervening vegetation or buildings, and oblique depending on the location of the Project in relation to the routes.

Six viewpoints were selected primarily to represent major routes, namely Viewpoints 2, 10, 12, 18, 21, and 24. Viewpoints 2, 18, and 24 are located along the N5 national secondary route, while Viewpoints 10, 12, and 21 are located along regional roads. While these views are representative of Major Routes, some are also representative of local community views, views from centres of population, and views from amenity and heritage features.

Major Routes feature a high number of viewers, with some locations considered to have comparatively high amenity value. Visual sensitivity on major routes is considered to be **Medium-Low**, albeit where reflective of views from within a centre of population (Viewpoint 18), sensitivity is considered **Medium**.

12.4.4.5 Sensitivity of Amenity and Heritage Features (AH)

A number of heritage and amenity features are included in the views addressed above, in particular within the Designated Scenic Routes and Views (Viewpoints 16, 17, and 25), Local Community Views (Viewpoints 1, 4, 7, and 13), Centres of Population (Viewpoints 4, 12, and 24), and Major Routes (Viewpoints 12 and 24). The remaining representative viewpoint, Viewpoint 14, is focused on an amenity and heritage feature within the Study Area, representing visitors to the Fairymount Cemetery.

With the exception of the designated scenic routes and views, which are considered to have comparatively high scenic and amenity value, these locations are influenced by a wider anthropogenic context, and therefore are considered of moderate scenic and amenity value.

The sensitivity of views from Rathcroghan (Viewpoint 17) is considered **Very High-High**, the sensitivity of views from Rathmore (Viewpoint 16) and Wynne's View (Viewpoint 25) are considered **High**, while the sensitivity of views from the other amenity and heritage features is considered to be **Medium**.

12.4.4.6 Construction Phase Visual Effects

During construction, the most notable visual effects will result from the erection of the proposed turbines, with lifting plant introducing additional vertical features into views. As per the construction programme outlined in **Chapter 2**: **Project Description**, construction-related activity will be short-term in nature (in accordance with the EPA definition of impact duration) and will cease once the Project becomes fully operational, albeit acknowledging that reinstated landscape works will take time to fully mature.

The visual effects generated by the activity associated with the erection of the turbines are considered in the context of their temporary nature, and a greater proportional focus is placed on the long term effects of their operation. However, for visual receptors within the Central Study Area, this activity is likely to be discernible, and will generate a modest impact on visual amenity. For visual receptors within the Central Study Area, the magnitude of visual impact at the construction phase is deemed to be no greater than Medium. When combined with a High-Medium and Medium sensitivity (recognising that in the majority of instances sensitivity is Medium-Low), the level of visual effect will be no greater than **Moderate**.

For visual receptors in the Wider Study Area, the activity associated with their construction is unlikely to notably influence the visual amenity of any given view, given that this activity would be difficult to discern at distance, particularly in relation to the movement generated by the wider wind turbine context. For visual receptors within the Wider Study Area, the magnitude of visual impact at the construction phase is deemed to be no greater than Low. When combined with an overall Medium sensitivity (High-Medium to Very High-High at scenic designations), the level of visual effect will be no greater than **Slight**. This order of effect reflects the distance at which this visual effect is incurred, with the magnitude of change reducing significantly with greater distance from the Site, as these changes become progressively marginal in their influence (or are not visible).

In addition to the erection of the turbines, the construction phase will also see activities taking place at ground level, albeit much of this short-term activity within the Site will remain screened from view by areas of coniferous forestry surrounding the Site and vegetation in the intervening landscape. Nonetheless, it is recognised that construction phase activities

have the potential to generate visual effects at a localised level. These construction phase works are temporary in nature and will be reinstated to their original condition following completion, acknowledging that landscape works take time to fully mature. It is also acknowledged that these activities and impacts will be experienced in the immediate locality of these works.

Construction phase visual effects are considered **Not Significant**.

12.4.4.7 Operational Phase

As stated previously, visual effects are discussed around visual receptor groups, based on the outcome of the visual assessment that has been undertaken for each of the 25 selected representative viewpoint locations. This section should be read in conjunction with this visual assessment and the associated photomontage set accompanying the EIAR.

Table 12.8 provides a summary of the operational effects identified within this visual assessment, and a discussion is provided thereafter in relation to Visual receptor groups.

Table 12.8: Summary of Visual Impact Assessment at Representative Viewpoint Locations

VRP No.	Receptor type	Distance (km)	Visual Receptor Sensitivity	Magnitude of Visual Impact	Significance / Quality
1	LCV, AH	1.3 (T2)	Medium	Medium	Moderate / Negative
2	LCV, CP, MR	1.4 (T1)	Medium-Low	Medium	Moderate-Slight / Negative
3	LCV	1.3 (T10)	Medium-Low	High-Medium	Moderate / Negative
4	LCV, CP, AH	2 (T10)	Medium	Medium	Moderate / Negative
5	LCV	0.67 (T5)	Medium-Low	Medium	Moderate / Negative
6	LCV	1.5 (T4)	Medium-Low	Medium	Moderate / Negative
7	LCV, AH	1.4 (T8)	Medium-Low	Medium-Low	Moderate-Slight / Negative
8	LCV	3.1 (T7)	Medium-Low	Medium-Low	Moderate-Slight / Negative
9	LCV	1.2 (T6)	Medium-Low	High-Medium	Moderate / Negative
10	LCV, MR	3.3 (T4)	Medium-Low	Low	Slight / Negative
11	DSR, LCV,	3 (T8)	High-Medium	Medium-Low	Moderate / Negative
12	CP, MR, AH	5.3 (T8)	Medium-Low	Low	Slight / Negative

VRP No.	Receptor type	Distance (km)	Visual Receptor Sensitivity	Magnitude of Visual Impact	Significance / Quality
13	LCV, AH	4 (T2)	Medium	Low	Slight / Negative
14	AH	7 (T1)	Medium	Low	Slight / Negative
15	LCV	5.1 (T1)	Medium-Low	Low	Slight / Negative
16	KV, DSR, AH	5 (T5)	High	Low	Moderate / Negative
17	KV, DSR, AH	5.9 (T5)	Very High - High	Low	Moderate / Negative
18	CP, MR	10 (T5)	Medium	Low-Negligible	Slight-Imperceptible / Negative
19	DSR	11.8 (T7)	High	Low	Moderate-Slight/ Negative
20	DSR	18.5 (T8)	High-Medium	Low	Slight / Negative
21	CP, MR	12.3 (T1)	Medium-Low	Low-Negligible	Slight-Imperceptible / Negative
22	CP	7 (T8)	Medium-Low	Negligible	Imperceptible / Neutral
23	DSR	8.4 (T1)	High-Medium	Negligible	Imperceptible / Neutral
24	CP, MR, AH	13.8 (T1)	Medium-Low	Low	Slight / Negative
25	DSR, AH	13.7 (T2)	High	Low	Moderate-Slight / Negative

Visual Impacts on Key Views

As previously set out, there are features in the wider landscape are considered to be of significant importance at a national and international level, and from which views of the wider landscape are an important part of the experience. Matters pertaining to heritage are addressed specifically within the Cultural Heritage and Archaeology Chapter which has been informed by a Heritage Impact Statement and a suite of photomontages that address views from sensitive locations and assets within the Rathcroghan complex. Although this landscape contains many sites of archaeological and heritage importance and are included in the wider consideration of visual impacts concerning designated views, and Tourism, Recreational & Heritage Features, two of the viewpoints (VRP 16, and 17) were selected as being of particular importance in terms of key views. This includes the views from Rathmore and Rathcroghan Mounds.

The sensitivity is categorised as Very High – High and High in recognition of the importance of these locations, and the sensitivity of visual receptors to changes in views of the

surrounding landscape, whilst simultaneously recognising that the landscape is not immune from human influence.

Within these two views, there is partial visibility of the Project, as it is partially screened by intervening vegetation and topography, and it occupies a small spatial extent of the overall view from the vicinity of these important heritage locations. The limited spatial extent and slight visual intrusion results in a no more than 'Moderate' likely visual impact significance. Visual impacts in relation to key views at these important heritage sites are considered not significant. Residual impacts at these locations relate more to the sensitivity of the location and visual receptors than to the magnitude of change.

Visual Effects on Designated Scenic Routes and Views

All of the scenic routes and views that fall inside the ZTV pattern were investigated during fieldwork to determine whether actual views of the Project might be afforded. In total, of the 25 viewpoints assessed as part of this LVIA, 7 (VRPs 11, 16, 17, 19, 20, 23, and 25) were selected as being relevant to the consideration of visual effects.

VRPs 11, 16, and 17 are considered to experience the highest likely visual effects, that of 'Moderate'. VRP 11 represents users of the N61 national road, where they pass through the landscape to the west of the Project within approximately 3km. VRPs 16 and 17 represent visitors to the Rathmore and Rathcroghan Mounds, located approximately 5 and 5.9km of the Project respectively. While the proposed turbines have the potential to be noticeable from these sites, they would occupy a small spatial extent of the overall view, and their perceived prominence and extent would be moderated by intervening vegetation. It is considered that the proposed turbines would detract from the sense of rural amenity in a minor way, and would be viewed in the context of a robust rural setting that is influenced by other wind energy development.

Two of the viewpoints (VRPs 19 and 25) are considered to experience 'Moderate-Slight' effects. VRP 19 represents visitors to the Carns archaeological site, located approximately 11.8km south-west of the Project, while VRP 25 represents visitors to Wynne's View along the L5705 local route, located to the north-east of the Project within approximately 13.7km. While the proposed turbines have the potential to be noticeable from these sites, they would occupy a small spatial extent of expansive views within a much wider productive rural setting, detracting from the sense of scenic amenity in a minor way.

VRP 20 is likely to experience a 'Slight' level of effect, representing users of the R371 regional road where they pass through the landscape to the east of the site within approximately 18.5km. Though the proposed turbines have the potential to be noticeable from this road, it is not considered that the Project would notably detract from the sense of scenic amenity within this expansive view.

VRP 23 is likely to experience an 'Imperceptible' level of effect, wherein any potential views of the Project would have no bearing on visual amenity.
Visual effects on designated scenic routes and views are considered not significant.

Visual effects on Local Community Views
In total, of the 25 viewpoints assessed as part of this LVIA, 13 (VRPs 1-11, 13, and 15) were selected as being relevant to a consideration of visual effects in relation to the local community.

The sensitivity of the majority of these viewpoints (VRPs 2, 3, 5-10, and 15) was assessed as Medium-Low, this reflecting typical views of a working rural landscape. The sensitivity of VRPs 1, 4, and 13 was assessed as Medium, this reflecting the cultural and historical significance of the friary and cemeteries in which these viewpoints are situated, within a more typical rural landscape. The sensitivity of VRP 11 was assessed as High-Medium, this reflecting the designation of the view as a Protected View.

VRPs 1, 3-6, 9, and 11 are likely to experience the highest visual effects, that of 'Moderate'. These viewpoints are located within 3km from the Project, with the majority located within 1.5km. From these locations, views are proximate, and the scale of the proposed turbines is perceived as being most prominent. While the visible proposed turbines have the potential to become a key feature within these views, they do not generate any notable sense of overbearing.

VRPs 2, 7, and 8 are likely to experience a 'Moderate-Slight' level of effect. The proposed turbines occupy a slight spatial extent of these overall views and are largely screened by intervening vegetation, which somewhat reduces their perceived prominence and influence on the view.

VRPs 10, 13, and 15 are likely to experience a 'Slight' level of effect. The Project occupies a slight spatial extent of these overall views, is largely screened, and is located at a distance of over 3km. These factors moderate the overall effect on the sense of rural amenity for local community receptors.

Visual effects for local community receptors are considered **Not Significant.**

Visual effects on Centres of Population

In total, of the 25 viewpoints assessed as part of this LVIA, 7 (VRPs 2, 4, 12, 18, 21, 22, and 24) were selected as being relevant to the consideration of visual effects.

VRP 4 is likely to experience the highest visual effects, that of 'Moderate'. Located on the outskirts of Bellanagare, it reflects views that may be available from the village. While the proposed turbines will likely be readily noticeable at a distance of approximately 2-3km, the proposed turbines present in an orderly and legible manner and have a high degree of visual permeability. They will be seen in the context of a robust and productive rural setting highly influenced by forestry, and, while prominent, they are not considered to generate a sense of overbearing.

VRP 2 is likely to experience a 'Moderate-Slight' level of effect. Located on the outskirts of Frenchpark, it reflects views that may be available from the village. While the proposed turbines will likely be readily noticeable at a distance of approximately 1-2km, they are likely to be partially screened and occupy a slight spatial extent of overall views of the wider landscape. It is not considered that the Project would notably detract from the visual amenity of this working, rural landscape.

VRP 12 is likely to experience a 'Slight' level of effect. Located on the outskirts of Elphin, it reflects views that may be available from the town. While the proposed turbines will likely be readily noticeable at a distance of approximately 5-7km, they are likely to occupy a slight spatial extent of overall views of the wider landscape and are likely to be at least partially screened by intervening vegetation. It is not considered that the Project would generate a notable influence on the visual amenity of this working, rural landscape.

Of the other viewpoints, VRPs 18 and 21 are likely to experience a 'Slight-Imperceptible' level of effect, and VRP 22 is likely to experience an 'Imperceptible' level of effect.

Visual effects for centres of population are considered **Not Significant.**

Visual effects on Major Routes

In total, of the 25 viewpoints assessed as part of this LVIA, 6 (VRPs 2, 10, 12, 18, 21, and 24) were selected as being relevant to the consideration of visual effects.

VRP 2 is likely to experience the highest visual effects, that of 'Moderate'. This viewpoint represents transient views for users of the current N5 where they pass through the landscape to the south-west of the site within approximately 1.4km. As noted previously in relation to VRP 2, while the proposed turbines will likely be readily noticeable at a distance of approximately 1-2km, they are likely to be partially screened and occupy a slight spatial extent of views of the wider landscape. It is noted that by the time the Project is operational, this section of road represented by VRP 2 would no longer be the N5, with the new section of road expected to be operational prior to construction of the Project. Correspondingly there would be a reduction in traffic volume. However, the new section of road is within 1km of this location, and the viewpoint is considered relevant in communicating the effects experienced by receptors on the new section of N5. It is not considered that the Project would notably detract from the overall visual amenity of this working, rural landscape.

VRPs 10 and 12 are likely to experience a 'Slight' level of effect. These viewpoints represent oblique and transient views for users of the R370 and R369 regional roads where they pass through the landscape to the east of the site within approximately 3.3 and 5.3km respectively. The proposed turbines are likely to occupy a slight spatial extent of views of the wider landscape and are likely to be at least partially screened by intervening vegetation. It is not considered that the Project would generate a notable influence on the overall visual amenity of this working, rural landscape.

VRPs 18 and 21 are likely to experience a 'Slight-Imperceptible' level of effect.

Visual effects for major routes are considered **Not Significant.**

Visual effects Amenity and Heritage Features

In total, of the 25 viewpoints assessed as part of this LVIA, 10 (VRPs 1, 4, 7, 12-14, 16, 17, 24, and 25) were selected as being relevant to the consideration of visual effects.

VRPs 1, 4, 16, and 17 are likely to experience the highest visual effects, that of 'Moderate'. These represent views for visitors to the Cloonshanville Dominican Friary (VRP 1), Drummin Cemetery (VRP 4), Rathmore Mound (VRP 16), and Rathcroghan Mound (VRP 17). These viewpoints represent users within 2km (VRPs 1 and 4) and 6km (VRPs 16 and 17). As noted previously in relation to these viewpoints, while the proposed turbines will be noticeable, they do not generate any notable sense of overbearing and will be seen in the context of a robust, working, rural setting.

VRPs 7 and 25 are likely to experience a 'Moderate-Slight' level of effect. These represent views for visitors to the Church of the Holy Trinity (VRP 7) and Wynne's View lookout point (VRP 25). These viewpoints represent users within 1.4 and 13.7km respectively. Within these views, the proposed turbines present in an orderly and legible manner, have a high degree of visual permeability, and will occupy a slight spatial extent of overall views of the wider landscape. It is not considered that the Project would notably detract from the visual amenity of this working, rural landscape.

VRPs 12-14, and 24 are likely to experience a 'Slight' level of effect. These represent views for visitors to the War of Independence Monument (VRP 12), Kilmanagh Cemetery (VRP 13), Fairymount Cemetery (VRP 14), and users of Lung Lough Gara Way (VRP 24). These viewpoints represent users within 7km (VRPs 12-14) and 13.8km (VRP 24). The proposed turbines are likely to occupy a slight spatial extent of views of the wider landscape and are likely to be at least partially screened by intervening vegetation. It is not considered that the Project would generate a notable influence on the overall visual amenity of this working, rural landscape.

Visual effects for Amenity and Heritage Features are considered **Not Significant.**

Visual effects arising out of non-temporary works

Works relating to the new proposed site entrance off the N5, widening works relating to the site entrances off the L1217, and the upgrading of the existing site access track will generate modest visual effects, as experienced from the immediate road context, once reinstatement works have been undertaken. These effects will be localised in nature, primarily affecting the local community and road users within the immediate locality. Whilst these elements will invariably change the visual environment, the magnitude of change is deemed to be no greater than Medium-Low, reducing swiftly within around 200m. Combined with a Medium sensitivity for receptors, the level of visual effect will be no greater than **Moderate-Slight**. Effects relating to these elements are considered **Not Significant**.

12.4.4.8 Decommissioning Phase Visual Effects

With the potential exception of Access Tracks that may be left in situ for use within commercial forestry and agriculture activity in the area, the decommissioning phase will see the removal of all turbines and infrastructure from the Site, with areas of hard standing that are of no further use allowed to revegetate naturally. The Onsite Substation and Grid Connection will be under the ownership of ESB Networks and will form a permanent part of the national grid infrastructure, and will therefore be left in-situ.

It is expected that the decommissioning phase will be completed within one year and that within a relatively short period of time following decommissioning (approximately 2-3 years) there will be little evidence that a wind farm was present.

The decommissioning phase will see a similar nature of effects to the construction phase due to the movement of heavy machinery within the Site, and to and from the Site removing turbine components. However, such effects will be temporary in duration and decrease as turbines are removed from view and the landscape is substantially reinstated.

As with construction phase impacts, decommissioning phase visual effects are considered **Not Significant**.

12.4.4.9 Visual effects Conclusion

With regard to the policies and objectives of the Roscommon CDP, this LVIA accompanies the Project in accordance with Policy NH 10.25. The LVIA has considered and assessed the effects in relation to Protected Views and Scenic Routes outlined in the Roscommon CDP, in accordance with the aforementioned policy, and Policy NH 10.26.

Based on the visual impact assessment outlined in the sections above, it is not considered that the Project will generate significant visual impacts in relation to visual receptors in the Central Study Area or Wider Study Area.

12.4.5 Cumulative Effects

The consideration of cumulative landscape and visual effects is placed principally on the cumulative wind energy developments outlined in **Table 2.1** in **Chapter 2: Project Description**. Cumulative ZTV maps are provided in **Plates 12.8** and **12.9** and included in **Figures 12.3** and **12.4** (at a larger scale).

Existing turbines and those under construction form the baseline against which the effects of the Project in the main body of the assessment are identified. The cumulative baseline against which the cumulative effects of the scheme are assessed extends to those that are not currently present, but that are permitted. A potential future cumulative Baseline context is also provided that is extended to include those schemes that are subject to a valid planning application.

A colour grading has been employed to illustrate the following types of theoretical visibility:

- Blue wash: indicates parts of the Study Area where theoretical visibility of the proposed turbines only will be possible, and they will not be seen in combination with existing, permitted, or 'in-planning' turbines;
- Pink wash: indicates parts of the Study Area where the proposed turbines have the potential to be seen with existing, permitted or 'in-planning' turbines;
- Green wash: indicates parts of the Study Area where the proposed turbines would not be visible, but existing, permitted or 'in-planning' turbines would be.

Given the topographical character of the Study Area and the scale and location of existing, permitted or 'in-planning' wind turbines, it is unsurprising that the baseline cumulative ZTV indicates that from 82.2% of the Study Area, theoretical visibility of existing wind turbines is possible. Theoretical visibility of wind energy development is therefore acknowledged to already be extensive in its coverage within the Study Area.

The Baseline cumulative ZTV highlights that the proposed turbines have the potential to be viewed in isolation for only 4.2% of the Study Area. These areas occur in small 'pockets' of theoretical visibility, generated as a result of the drumlin features present throughout the wider parts of the Study Area. These areas are theoretical and occur in relation to restricted geographic areas. In reality, any visibility from these locations would be partial and at such a distance that they would be difficult to discern.

The baseline cumulative ZTV indicates that 56% of the Study Area has a theoretical potential for visibility of both the proposed turbines and other existing wind farm developments, with the existing wind turbine context having the potential to be viewed in isolation for 26.2% of the Study Area. This reflects the topographical nature of the site in a lower part of the landscape, relative to the comparatively elevated turbines associated with Largan Hill and Sliabh Bawn. This is particularly notable in relation to the northern part of the Study Area, where the relative topography precludes theoretical visibility of the proposed turbines.

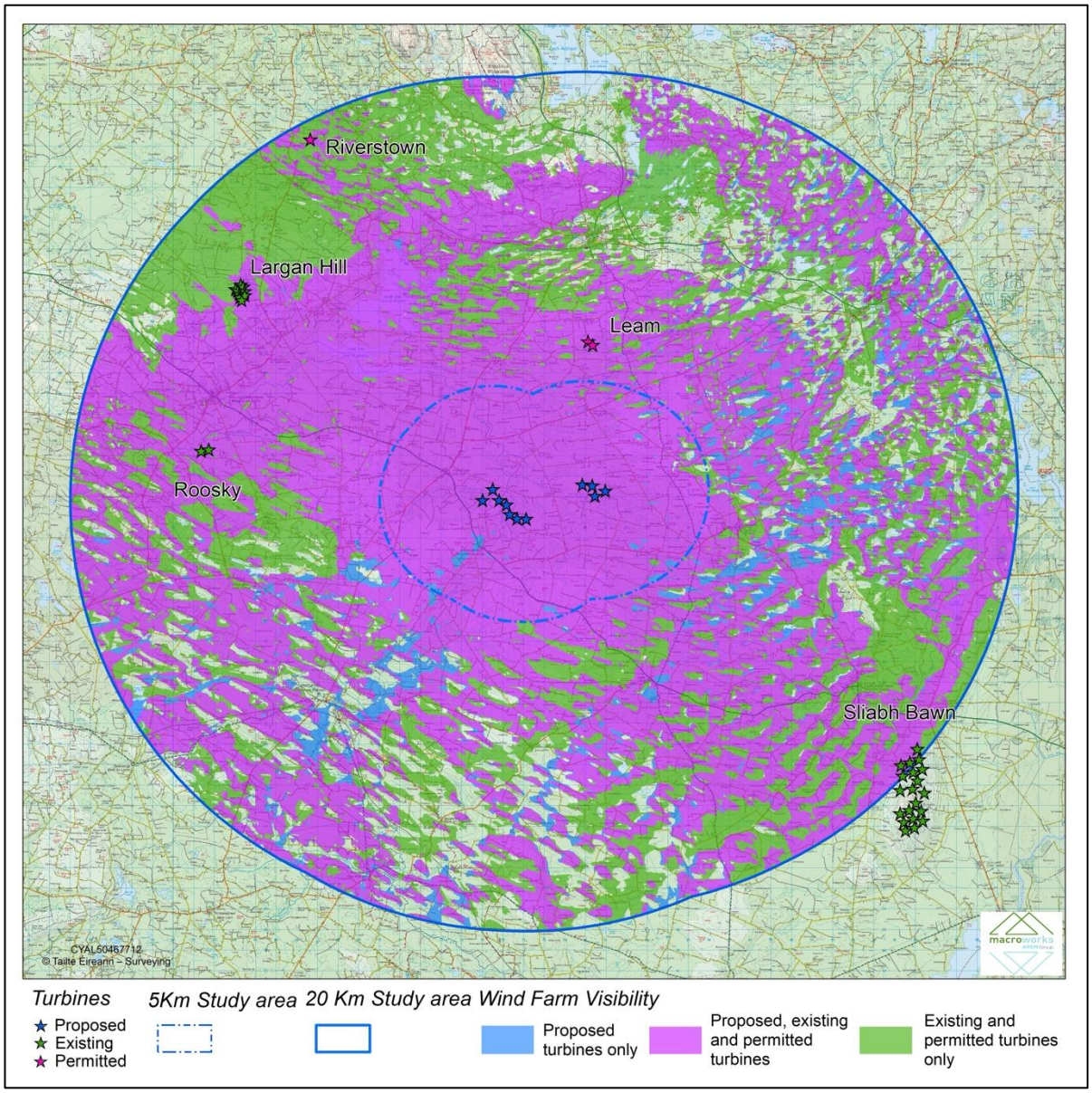

Plate 12.8: Baseline Cumulative ZTV showing theoretical potential for cumulative visibility of the Project and other existing and 'in construction' wind farm developments (see Figure 12.3 for larger scale map).

As with other ZTV mapping presented, it is important to note that cumulative ZTVs are based on bare-ground data and that visibility is likely to be much less than identified on the ZTV maps. What is clear however, and validated through field visits, is that whilst wind energy development is not widespread throughout the Study Area, and parts of the landscape where the drumlin topography generates hollow areas that preclude longer ranging views, visual receptors within almost every location within the central and Wider Study Area have theoretical visibility of an existing wind farm and that there are few opportunities in the wider landscape where views of the Project would be possible in the absence of other such features.

Through ongoing searches undertaken through the assessment period (up to the end of October 2025), it is also understood that the Islandmore Wind Farm and the Ballyfeeny Wind Farm, both subject to a planning application, may come forward in the landscape to the northwest and southeast of the proposed wind farm, extending the turbine context that exist at those locations. Given their elevation, and their association with existing wind energy developments in these locations, their addition would not notably alter the extent of the wind farm development in the landscape, as demonstrated by the comparative ZTV at **Plate 12.9**.

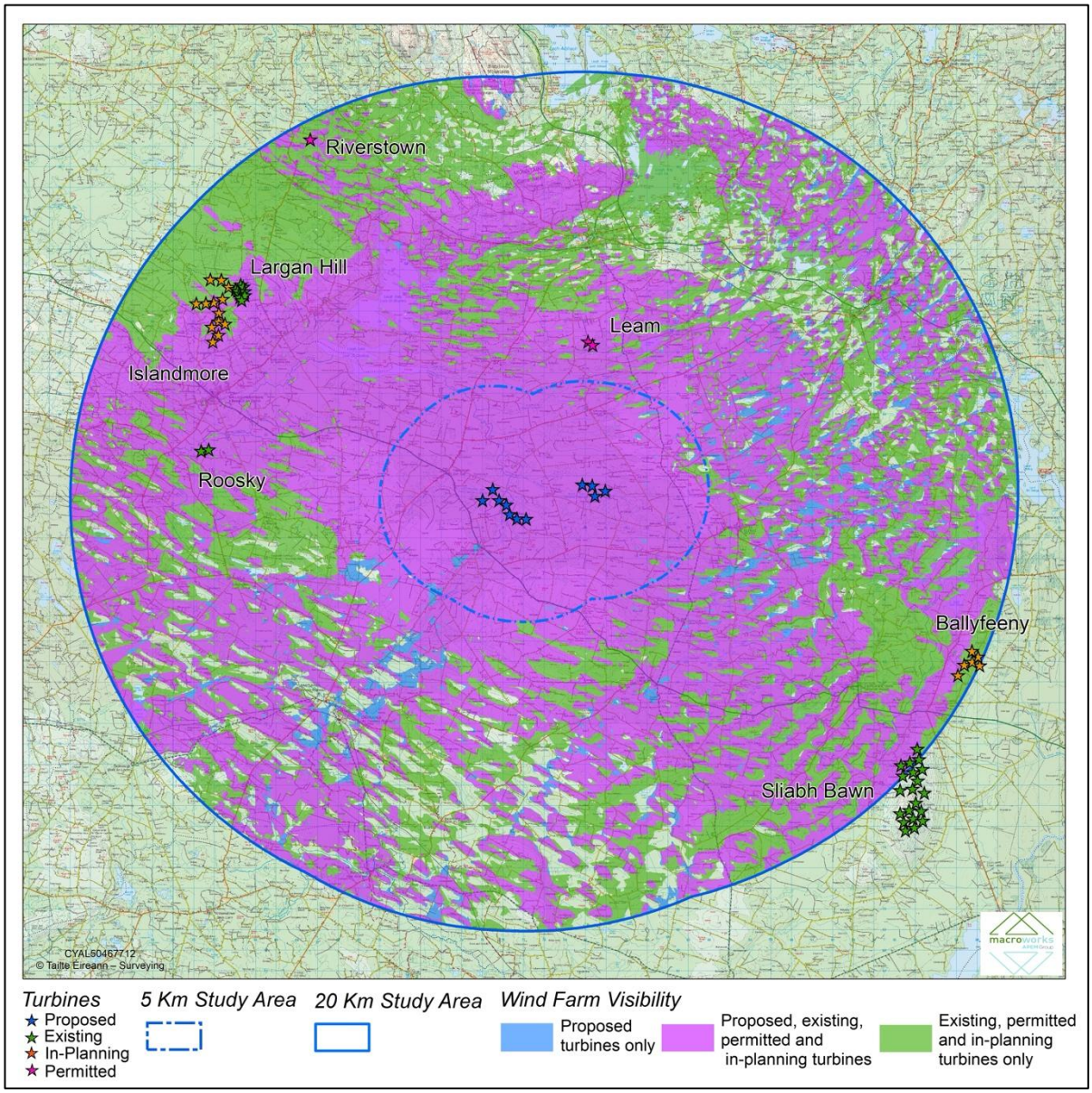

Plate 12.9: Future Cumulative ZTV showing theoretical potential for cumulative visibility of the Project, existing and 'in construction' wind farm developments, and developments that are at the planning application stage (see Figure 12.4 for larger scale map).

The implications of the inclusion of these two additional wind farms were analysed and the following was noted:

- 28.8% of the Study Area offering theoretical visibility of existing wind turbines in the absence of the Project (increase of 2.6%);
- 11% of the Study Area having no theoretical visibility of any turbines (decrease of 2.6%);
- 2.8% of the Study Area offers potential for the proposed turbines to be viewed in isolation (decrease of 1.4%); and
- 89% of the Study Area has a theoretical potential for visibility of both the proposed turbines and the other existing turbines (increase of 2.6%).

These results demonstrate that in theory, the addition of the Islandmore and Ballyfeeny Wind Farms would have limited impact on the extent of the Study Area that would be theoretically influenced by wind energy development, albeit recognising that in parts of the Study Area, the influence of wind energy development on landscape character and views may be comparatively heightened.

As described in the main body of the assessment, wind energy development is present and theoretically visible from a large proportion of the Study Area, with turbines a recurring element across much of the landscape. The focus of these wind energy developments is with the more elevated landscapes to the northwest and southeast of the site, with the proposed turbines forming a notable cluster in the more settled lowland landscape. Given the separation distances between the Project, and the limited number of turbines associated with these other wind energy developments, the addition of the proposed wind farm into this cumulative context may contribute to wind turbines becoming a more familiar feature in the wider landscape, but is not considered to generate a wider character defining influence, or contribute to a notable sense of proliferation.

Turning to the cumulative visual effects, the addition of the proposed turbines within a cumulative baseline scenario, will generate cumulative visual effects where they are seen in combination with other wind energy developments in the same view (combined visibility), or sequentially as part of a journey through the landscape. NatureScot guidance outlines that combined visibility can occur 'in combination' where several wind farms are within the observer's arc of vision at the same time, or 'in succession' where the observer has to turn to see the various wind farms.

'In combination' views are likely to be possible from the following two viewpoints:

- VP3 (with the Leam Wind Farm and the more distant Derrysallagh Wind Farm 33km)
- VP4 (with the Leam Wind Farm)
- VP11 (with the Largan Hill and Islandmore Wind Farm)
- VP13 (with the Largan Hill and Islandmore Wind Farm)
- VP17 (with the more distant Derrysallagh Wind Farm 33km)
- VP19 (with the Leam Wind Farm)
- VP20 (with the Largan Hill and Islandmore Wind Farm)
- VP24 (with the Largan Hill and Islandmore Wind Farm)

Given the landscape context and the distances between the turbines, many 'in combination' views will be precluded by screening elements occurring in the landscape. The most notable views occur in elevated locations, where views over the wider landscape are possible. Where the proposed turbines are visible 'in combination' with other cumulative wind turbine developments, they would be seen separately, as distant clusters.

Whilst 'in succession' views may be possible, given the relative number of turbines, and their distance from each other, the influence of the other cumulative schemes is similar to the 'in combination views', and it is not considered that the addition of the proposed turbines would contribute to any notable sense of proliferation.

In terms of sequential visual effects, the landscape plays host to numerous roads and promoted recreational routes such as the Lung Lough Gara Way, that afford sequential views over the landscape over a range of distances, with the topographical character and layers of vegetation present generating varying degrees of wider visibility. Where the Project is seen sequentially, given the distance between the separate clusters, they would present as distinct and separate entities, and not in a homogenous collective manner.

Where visible in combination or sequentially, given the spacing between the separate wind farm clusters, it is not considered that the proposed turbines will generate any notable visual conflict or distance distortion, with each appearing to stand in relative isolation. Separation distances will minimise any visual tension caused as a result of clutter or scale confusion, and given the number of turbines present, there will be little sense of being surrounded by turbines.

On balance of the reasons outlined above, it is not considered that the Project will generate significant cumulative effects.

12.4.5.1 Cumulative Impact Conclusion

The cumulative landscape and visual effects of the Project is not considered to notably differ from the judgements raised in the main body of the LVIA. The cumulative landscape and visual effects of the Project are considered **Not Significant**.

12.5 INTERACTIONS

The Project involves features and activities that have the potential to generate physical changes to the landscape and visual environment (both physical and perceptual), which will also incur wider environmental impacts. This includes aspects relating to vegetation loss, construction of Access Tracks and road junctions, and the presence of construction and maintenance plant on the Site. Likewise, there are aspects (such as noise) that have the potential to influence experiential aspects of landscape character.

Whilst these aspects will generate a degree of change to the landscape and visual environment, the main interactions relate to the construction and presence of the turbines and other vertical infrastructure due to their visibility. The main interactions are considered to relate to Population and Human Health, and Cultural Heritage as follows:

Landscape and Visual and Population and Human Health

Landscape and Visual impacts arising from the construction, operation, and decommissioning of the wind turbines are considered in the LVIA with respect to the effect on perceived landscape character, views, and on the general visual amenity experienced by people, including local residents. Proportionately, the operational effects of the turbines are considered to give rise to the most notable landscape and visual effects given the long-term nature of the change, and a greater focus is placed on them. However, whilst they have the potential to be prominent, the turbines will be seen in the context of a modified landscape. It is noted that the findings of the assessment did not identify any significant impacts in relation to receptors in the Central or Wider Study Area, and these findings of the LVIA have contributed to the Population and Human Health assessment.

Landscape and Visual and Cultural Heritage

Common receptors were considered in relation to landscape character and the setting of cultural heritage features as well as views from heritage features visited by the public and for whom views of the landscape are a contributing factor to the experience. Whilst the turbines have the potential to be visible, they will be seen in the context of an extensively modified landscape. Again, it is noted that the findings of the assessment did not identify any significant impacts in relation to receptors in the Central or Wider Study Area.

12.6 MITIGATION AND MONITORING MEASURES

12.6.1.1 Construction Phase Mitigation

All construction activities will follow best practice methods to reduce environmental impacts upon the environment, as outlined in the Construction and Environmental Management Plan (CEMP) which will manage the environmental commitments of the Project through the construction phase, and will be continued through to the commissioning, operation and decommissioning phases. It is noted that an Environmental Manager / Ecological Clerk of Works (ECoW) with appropriate experience will be appointed for the duration of the construction phase so that the CEMP is effectively implemented.

Full details of the Project are outlined in **Chapter 2: Project Description**.

Aside from mitigation measures to minimise land and vegetation disturbance and dust emissions (which may reduce visual amenity), no specific landscape or visual mitigation measures are proposed in relation to the construction phase beyond adherence to best practice methods to reduce environmental impacts upon the environment.

The appropriate management and reinstatement of excavations, in a timely manner, will ensure that any adverse effects caused, for example at the site entrance or road upgrade locations, are minimised insofar as possible. Similarly, the progressive reinstatement of areas damaged through construction will alleviate short-term adverse effects on the local landscape.

The construction methodology has considered the minimisation of landscape disturbance, with the localised disturbance of grass and vegetation required in relation to the TDR and Grid Connection being minimal and temporary in nature. All areas damaged during construction will be reinstated to their original condition, with all vegetation lost to facilitate works replaced. Replacement of trees and hedgerows will be undertaken in accordance with approved landscaping plans, with landscape works undertaken in accordance with best practice. The following standards are widely adopted as representing best practice in landscape operations:

- BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces). BS 5837:2012 – Trees in Relation to design, demolition and construction.
- BS 8545 Trees: from nursery to independence in the landscape – Recommendations.
- BS 3936 – Part 1: Nursery stock specification for trees and shrubs.

12.6.1.2 Operational Phase Mitigation

No specific landscape or visual mitigation measures are proposed in relation to the Project, beyond those integrated within the scheme layout, and beyond the measures outlined.

In relation to the WEDG, the landscape is considered to relate most closely with the characteristics of the 'Hilly and Flat Farmland' landscape type from the WEDG/DWEDG in terms of land cover; however, the landscape shares characteristics of the 'Flat Peatland' landscape type, in terms of flatness and broad-scale land use patterns.

In instances where two or more landscape types are potentially applicable, the WEDG/DWEDG recommend consideration of the advice for each landscape type rather than just that considered to be most applicable. In relation to the guidance of both landscape types, the following is noted:

- Location: The Project is located a sufficient distance from farmsteads, houses, and centres of population, beyond the minimum setback specified within Section 6.18 of the DWEDG unless otherwise agreed with property owners, as outlined within Section 12.3.1.6 of this document. It is not located on a ridge or plateau, as the surrounding landscape is more gently undulating, rather than comprising a series of elevated areas. The Project is generally set back from major routes, however it is located close to the L1217 local road, which, as noted in the WEDG "*could prove an exciting experience*." As there are powerlines throughout the landscape, there is some visual overlap from some locations.
- Spatial extent: The landscape within which the Project is located has a broad quality defined by large scale coniferous plantations and peatbog landcover. From some proximate locations to the north and south, the Project is perceived to occupy a large spatial extent, albeit this is moderated to some degree by the separation afforded by the separate clusters. However, this spatial extent is considered to respond well to the broad nature of the landscape, and the large scale nature of the landcover it is associated with.
- Spacing: The proposed turbines are well-spaced and regular, corresponding to the scale of the underlying land parcel pattern and allowing a high degree of visual permeability from most areas within the surrounding landscape.
- Layout: The proposed turbines are arranged in a staggered linear layout, which responds well to the structure of the underlying land parcel patterns and location adjacent to a local road.

- Height: The proposed turbines respond well to the broad scale of the landscape and its land cover, and do not appear over-scaled in relation the receiving landscape. In no instances are the turbines considered to appear overbearing.
- Cumulative: Within the landscape context, wind energy is not likely to be perceived to visually dominate, as existing and Projects are well spaced throughout the areas of landscape character.

12.6.1.3 Decommissioning phase

Upon decommissioning, the turbines, Met Mast, and all underground electrical and communications cabling will be removed. Other elements will be retained in situ to avoid further disturbance. No specific landscape or visual mitigation measures are proposed in relation to the decommissioning phase beyond adherence to best practice methods to reduce environmental impacts upon the environment.

12.6.1.4 Monitoring

It is reiterated that an Environmental Manager / EcoW with appropriate experience will be appointed for the duration of the construction phase so that the CEMP is effectively implemented, and that all landscape works undertaken as part of this will be subject to ongoing management and maintenance to ensure establishment. As there are no specific mitigation measures proposed in relation to reducing landscape and visual effects, monitoring measures (beyond the establishment of landscape proposals) are not considered necessary.

12.7 RESIDUAL LANDSCAPE AND VISUAL EFFECTS

Best practice in general terms requires that the level of potential effects be assessed, mitigation proposals identified, and the 'residual' effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed.

No specific landscape or visual mitigation measures are proposed beyond adherence to best practice methods to reduce environmental impacts upon the environment, and undertaking reinstatement/replacement planting, and seeding works. These measures, together with the consideration given to the siting and design of the Project, have been iteratively embedded into the scheme being assessed as part of a holistic approach to design and assessment, and it is not considered that there are any specific additional mitigation measures that would moderate effects further. The effects of the scheme described should be considered the 'residual' effects.

12.8 SUMMARY OF SIGNIFICANT EFFECTS

It is not considered that there will be any significant landscape or visual effects arising from the Project.

12.9 STATEMENT OF SIGNIFICANCE

Based on the landscape, visual and cumulative assessment contained herein, it is considered that there will not be any significant landscape or visual effects arising from the Project.

12.10 REFERENCES

- Environmental Protection Agency (EPA), 2022. Guidelines on the information to be contained in Environmental Impact Assessment Reports and Advice Notes on Current Practice in the Preparation of Environmental Impact Assessment Reports. [online] EPA. Available at: https://www.epa.ie [Accessed October 2025].
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