

13. LANDSCAPE AND VISUAL

13.1 INTRODUCTION

This chapter describes the landscape context of the proposed project and assesses the likely significant landscape and visual impacts on the receiving environment arising from the proposed project (refer to Chapter 2 – Project Description for a detailed description of the proposed project). Although closely linked, landscape and visual effects are assessed separately.

With regard to potential landscape and visual impacts arising from the GCR and TDR, the principal effects are anticipated to occur predominantly during the construction phase of the proposed project. Any such effects will be highly localised in nature and confined to the immediate environs of the respective corridors, with both aspects of the proposed project having a very limited influence beyond approximately 200–500 m from the proposed works. The construction activities associated with both the GCR and the TDR will be temporary, linear and of limited spatial extent, and will largely utilise existing established corridors and transport routes. Taking account of the absence of highly sensitive landscape receptors along these routes, and the temporary nature of the works, neither the GCR nor the TDR is considered likely to give rise to significant landscape or visual effects during the construction, operational, or decommissioning phases of the project.

On this basis, potential landscape and visual effects associated with the GCR and TDR have been scoped out of the assessment presented below.

Landscape Impact Assessment (LIA) relates to changes in the physical landscape brought about by the proposed 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 proposed project without causing unacceptable adverse changes to its character.

Visual Impact Assessment (VIA) relates to assessing effects on specific views and on 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 proposed project in conjunction with other developments (associated or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future.

13.1.1 Statement of Authority

This Landscape and Visual Assessment (LVIA) was prepared by Cian Doughan, Macro Works Ltd. Cian holds a Bachelor of Science in Landscape Architecture and is a Corporate Member of the Irish Landscape Institute (MILI) with nine years' experience as an LVIA consultant. The Assessment was reviewed by Richard Barker (Masters in Landscape Architecture and MILI) of



Macro Works Ltd, who has 18 years of experience in the appraisal of landscape and visual effects from a variety of energy, infrastructure and commercial developments.

13.1.2 Definition of the Study Area

Both the 2006 Wind Energy Development Guidelines and Draft Revised 2019 Wind Energy Development Guidelines (WEDGs) published by the Department of the Environment, Heritage and Local Government specify radii for examining the zone of theoretical visibility (ZTV) of proposed wind farm projects. The 2006 guidance and Draft Revised WEDG¹ is identical in relation to defining the radii for examining the ZTV of proposed wind farm projects. The extent of this search area is influenced by turbine height, as follows:

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

In the case of the proposed project, the blade tips are up to a maximum 185m height (proposed tip height range is between 180m-185m) and, thus, the minimum ZTV radius applied is 20 km from the outermost turbines, which represents current best practice with regard to the height of the turbines and scale of the turbine array. There are no landscape features of national or international importance between 20 – 25 km and thus, the radius of the study area will remain at 20 km. Notwithstanding the full 20 km extent of the LVIA study area, there will be a particular focus on receptors and effects within the central study area where there is higher potential for significant effects to occur. When referenced within this assessment, the ‘central study area’ is the landscape within 5 km of the proposed wind farm site boundary, which represents current best practice.

In relation to other features of the proposed project, such as the proposed Grid Connection Route (GCR) and works areas of the proposed Turbine Delivery Route (TDR), their study area relates to their immediate context and a 50 m corridor either side of these linear features, as per current best practice. This is principally due to the localised nature of potential effects.

For clarity, a summary of defined terms with regard to the study area that are used throughout this chapter is provided below:

- Site and Immediate Study Area – the proposed wind farm site and immediate surrounding landscape up to 1km.
- Central Study Area – areas outside of the site and immediate study area up to 5km from the proposed turbine array.
- Wider Study Area – parts of the surrounding landscape between 5-20km from the proposed turbine array.
- GCR/TDR Study Area – a 50 m corridor either side of these linear features.

¹ The draft Revised WEDGs represent a consultation draft which are not in force and subject to change.



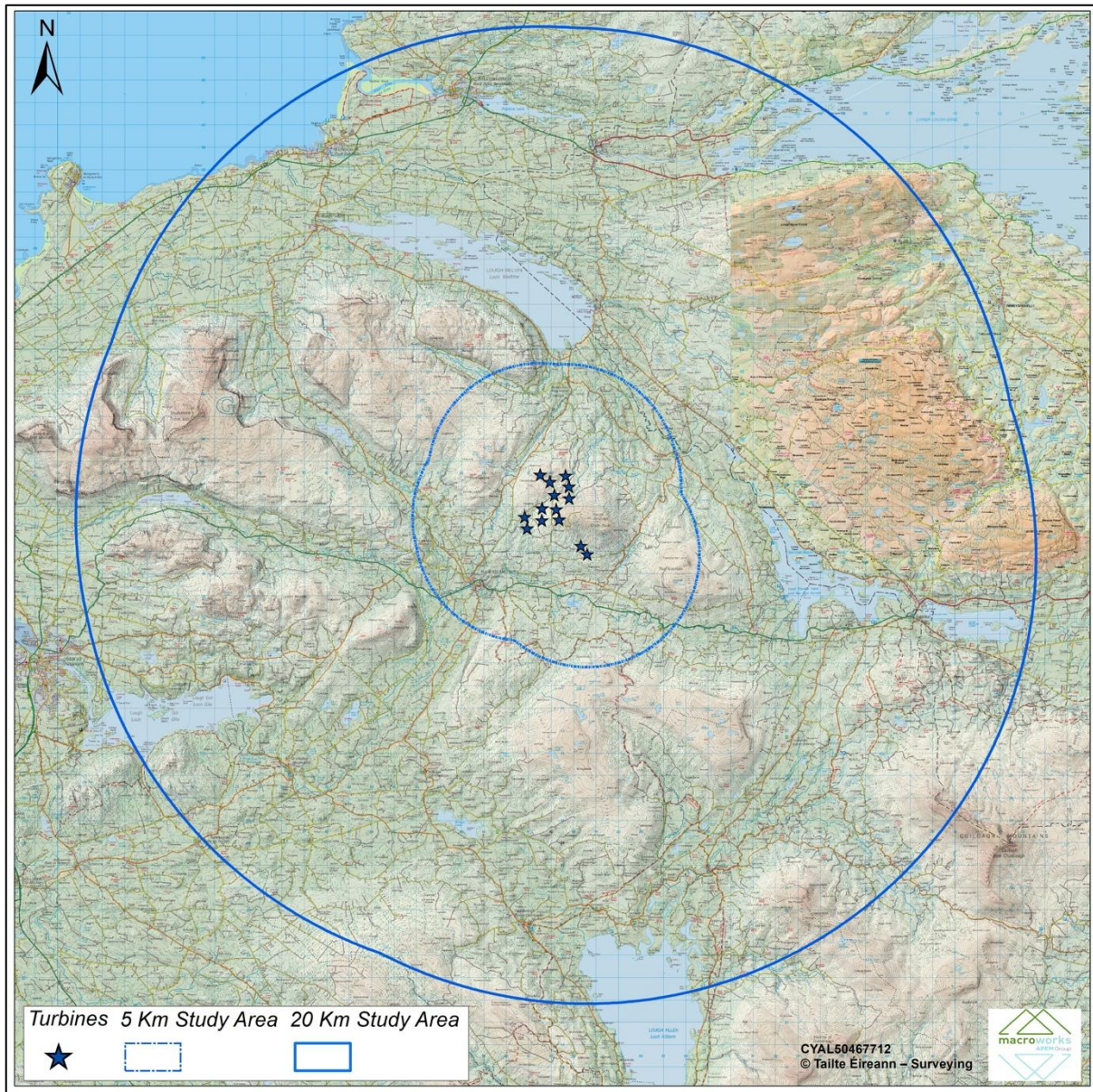


Figure 13-1: Full 20 km extent of the Study Area

13.2 ASSESSMENT METHODOLOGY

The LVIA adheres to methodology as prescribed in the following guidance documents:

- European Union (2017) Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU);
- Environmental Protection Agency (EPA) (2022) publication Guidelines on the Information to be contained in Environmental Impact Assessment Reports (2022);
- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) publication entitled Guidelines for Landscape and Visual Impact Assessment – Third Addition (2013);
- NatureScot (2021) Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments [online];²
- Department of the Environment, Heritage and Local Government Wind Energy Development Guidelines (2006);
- Scottish Natural Heritage Visual Representation of Wind Farms: Best Practice Guidelines (version 2.2 - 2017).³

Department of the Environment, Heritage and Local Government Wind Energy Development Guidelines (2019 Draft)

The draft revised WEDGs represent a consultation draft which are not in force and subject to change. However the draft revised WEDGs have been considered in this assessment and adhered to where they align with current best practice. It is important to note that all information and guidelines relating to landscape areas and types in the current wind energy development guidelines (2006) are duplicated in the draft revised wind energy development guidelines (2019). The only additional information relating to landscape and visual in the draft revised guidelines relates to the visual amenity setbacks. Thus, the current (2006) and draft revised (2019) guidelines have been referenced.

Use of the Term ‘Effect’ vs ‘Impact’

The GLVIA3 advises that the terms ‘impact’ and ‘effect’ should be clearly distinguished and consistently used in the preparation of an LVIA.

‘Impact’ is defined as the action being taken. In the case of the proposed works, the impact would include the construction of the proposed project.

‘Effect’ is defined as the change or changes resulting from those actions, e.g. a change in landscape character, or changes to the composition, character and quality of views in the receiving environment. This report focusses on these effects.

Assessment of Both ‘Landscape’ and ‘Visual’ Effects

Another key distinction to make in a LVIA is between landscape effects and the visual effects of development.

² There is no current guidance document in Ireland relating to the assessment of cumulative landscape and visual effects for onshore wind energy development, and thus, it is standard practice to use the NatureScot guidance

³ As above.



'Landscape' results from the interplay between the physical, natural and cultural components of our surroundings. Different combinations of these elements and their spatial distribution create distinctive character of landscape in different places. 'Landscape character assessment' is the method used in LVIA to describe landscape, and by which to understand the potential effects of a development on the landscape as 'a resource'. Character is not just about the physical elements and features that make up a landscape, but also embraces the aesthetic, perceptual and experiential aspects of landscape that make a place distinctive.

Views and 'visual amenity' refer to the interrelationship between people and the landscape. The LVIA prescribes that effects on views and visual amenity should be assessed separately from landscape, although the two topics are inherently linked. Visual assessment is concerned with changes that arise in the composition of available views, the response of people to these changes and the overall effects on the area's visual amenity.

Production of this Landscape and Visual Impact Assessment involved baseline work in the form of desktop studies and fieldwork comprising professional evaluation by qualified and experienced Landscape Architects. This entailed the following:

13.2.1 Desktop Study

- Establishing an appropriate Study Area from which to study the landscape and visual impacts of the proposed project;
- Review of a Zone of Theoretical Visibility (ZTV) map, which indicates areas from which the development is potentially visible in relation to terrain within the Study Area;
- Review of relevant National and Regional Policies and Designations, County Development Plans, particularly with regard to sensitive landscape and scenic view/route designations and associated policies and objectives;
- Selection of potential Viewshed Reference Points (VRPs) from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity.

13.2.2 Fieldwork

- Recording of a description of the landscape elements and characteristics within the Study Area.
- Selection of a refined set of VRP's for assessment. This includes the capture of reference images and grid reference coordinates for each VRP location for the visualisation specialist to prepare photomontages.

13.2.3 Appraisal

- 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 design guidance and planning policies.
- Consideration of potentially significant effects and the mitigation measures that could be employed to reduce such effects.
- Consideration of the potential effects arising from the proposed design flexibility.
- Estimation of the significance of residual landscape effects.



- Estimation of the significance of residual visual effects aided by photomontages prepared at all of the selected VRP locations.
- Estimation of cumulative landscape and visual effects in combination with other surrounding developments that are either existing, permitted or in the planning system and pending a decision from a planning authority. Projects that are at the pre-planning stage where information is available are also be included in the cumulative impact assessment.

13.2.4 Assessment Criteria for Landscape Effects

The classification system to determine the significance of landscape and visual effects complies with the Landscape Institute and IEMA Guidelines for Landscape and Visual Impact Assessment (2013). When assessing the potential effects on the landscape resulting from a wind farm development, the following criteria are considered:

- Landscape character, value and sensitivity;
- Magnitude of likely effects; and
- Significance of landscape effects.

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 to its essential characteristics. Landscape Value and Sensitivity is classified using the following criteria outlined in Table 13-1.

Table 13-1: Landscape Value and Sensitivity

Sensitivity	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.

The magnitude of a predicted landscape effect is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed 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 proposal site boundary that may have an effect on the landscape character of the area, see Table 13-2.



Table 13-2: Magnitude of Landscape Effects

Magnitude of Effect	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 extensive 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 a considerable 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 noticeable changes in landscape character, and quality.
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 that would lead to discernible changes in landscape character, and quality.
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 leading to no material change to landscape character, and quality.

The significance of a landscape effect is based on a balance between the sensitivity of the landscape receptor and the magnitude of the effect. The significance of landscape effects is arrived at using the following matrix set out in Table 13-3.

Table 13-3: Effect Significance Matrix

Magnitude	Sensitivity of Receptor				
	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 (yellow colour)' and above are considered to be 'significant effects' within this assessment. All other effects are deemed Not significant

13.2.5 Assessment Criteria for Visual Effects

As with the landscape effect, the visual effect of the proposed 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.



13.2.5.1 Visual Sensitivity

Unlike landscape sensitivity, visual sensitivity has an anthropocentric basis. 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 as set out below. Susceptibility criteria is extracted directly from the Landscape Institute and IEMA Guidelines for Landscape and Visual Assessment (2013), 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:

Susceptibility of receptor group to changes in view

This is one of the most important criteria to consider in determining overall visual sensitivity because it is the single category dealing with viewer susceptibility. In accordance with the Landscape Institute and IEMA Guidelines (2013), 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; and
- 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; and
 - 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.

Value Associated with the View

- **Recognised scenic value of the view** (County Development Plan designations, International, National and Regional 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 on a regular basis and whether this is significant at 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 special sense of wholeness and harmony at the viewing location; and
- **Sense of awe.** This criterion considers whether the view inspires an overwhelming sense of scale or the power of nature.

The sensitivity of visual receptors is classified from Low to Very High. Locations with highly susceptible receptors, or groups of receptors, that meet many of the view value criteria are likely to be assessed as having High or Very High visual sensitivity. Receptors that are particularly sensitive to change, including those that are designated or otherwise recognised as sensitive, tend to fall within the higher sensitivity categories. More typical and less susceptible receptors are generally classified within the mid-range. Receptors that exhibit a degree of degradation or



are heavily influenced by anthropogenic features are typically assessed as having mid to lower levels of sensitivity.

Overall, the assessor will classify the sensitivity of visual receptors using professional judgement, informed by an evaluation of the receptor type, the value and characteristics of the view, the susceptibility of the receptor to change, and the presence of any designations or recognised landscape features. This judgement will draw on established guidance and best practice, while taking account of the specific context of the site and its surroundings. These sensitivity ratings are then considered alongside the magnitude of visual effect to determine the overall significance of effect, as set out in Table 13-3 below.

13.2.6 Magnitude of Visual Effects

The magnitude of visual effects is determined on the basis of two factors; the visual presence of the proposed project 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. Instead, the 2012 Fáilte Ireland survey entitled 'Visitor Attitudes On The Environment - Wind Farms' found that "Compared with other types of development in the Irish landscape, wind farms elicited a positive response when compared to telecommunication masts and steel electricity pylons".... and that "most (tourists) felt that their presence did not detract from the quality of their sightseeing, with the largest proportion (45%) saying that the presence of the wind farm had a positive impact on their enjoyment of sightseeing...". A further study by Fáilte Ireland titled 'Report on Visitor Awareness and Perceptions of the Ireland Landscape' (2018) found that in relation to views from prominent tourism sites in Ireland "there is consistent evidence of the majority of visitors not reporting the visibility of large, visually prominent developments that were close and directly in their line of sight". Some examples of this were where no visitors reported the visibility of a windfarm or nearby industrial units at Cashel and no visitor noticed the offshore windfarm at Brittas Bay. The purpose here is not to suggest that turbines are either inherently liked or disliked, but rather to highlight that the assessment of visual impact 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 impact 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). The magnitude of visual effect is classified in in Table 13-4 and are produced in line with relevant guidelines (GLVIA3) and best practice.

Table 13-4: Magnitude of Visual Effect

Criteria	Description
Very High	The proposal obstructs or intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. An extensive degree of visual change will occur within the scene completely altering its character, composition and associated visual amenity
High	The proposal obstructs or 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 change will occur within the scene substantially altering its character, composition and associated visual amenity
Medium	The proposal represents a moderate intrusion into the available vista and is a readily noticeable element. A noticeable degree of visual change will occur within the scene perceptibly altering its character, composition and associated 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 influence the visual amenity of the scene

13.2.6.1 Significance of Visual Effect

As stated above, the significance of visual effect is a function of visual receptor sensitivity and magnitude of visual effect. This relationship is expressed in the same significance metric included for Landscape Effect Significance at Table 13-3.

13.2.6.2 Quality and Timescale in Effects

In addition to assessing the significance of landscape effects and visual effects, the EPA EIAR Guidelines (2022) requires that the quality of the effects is also determined. This could be negative/adverse, neutral, or positive/beneficial. In the case of new energy / infrastructure developments within rural and semi-rural settings, the landscape and visual change brought about by an increased scale and intensity of built form is seldom considered to be positive / beneficial.

Landscape and Visual effects are also categorised according to their duration:

- Temporary – Lasting for one year or less;
- Short Term – Lasting one to seven years;
- Medium Term – Lasting seven to fifteen years;
- Long Term – Lasting fifteen years to sixty years; and



- Permanent – Lasting over sixty years.

13.2.6.3 Approach to Design Flexibility

For the landscape and visual assessment, the pertinent aspect of the approach to design flexibility relates to the turbine dimensions used to prepare the photomontages, upon which, the visual impact assessment is based.

Macro Works has taken the approach of using the highest possible tip height (185 m) and highest hub height (110.5 m) combination. This is on the basis that a viewer who can see a hub rising above a skyline ridge is likely to feel they are seeing more of the turbine than when the hub is screened from view (i.e. in the case of a lower hub / longer blade combination). That premise is based on the hub being perceived as the key and central component of a turbine in a figurative sense.

Whilst potential landscape and visual effects will be modelled using a single turbine option, a sub-set of comparative photomontages showing the full extent of potential turbine parameters, including tip heights, hub heights and rotor diameters, will be provided for assessment to highlight any potential differences in the assessment of visual effects in the visual impact appraisal.

13.2.6.4 Limitations/Difficulties Encountered

No limitations or difficulties were encountered during the preparation of the LVIA Chapter.

13.3 EXISTING ENVIRONMENT

13.3.1 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 proposal 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).

A description of the landscape context of the proposed wind farm site, wider study area is provided below under the headings of landform and drainage and vegetation and land use. Centres of population, transport routes and tourism, recreation and heritage features form part of the visual baseline and are dealt with in Section 13.3.3.

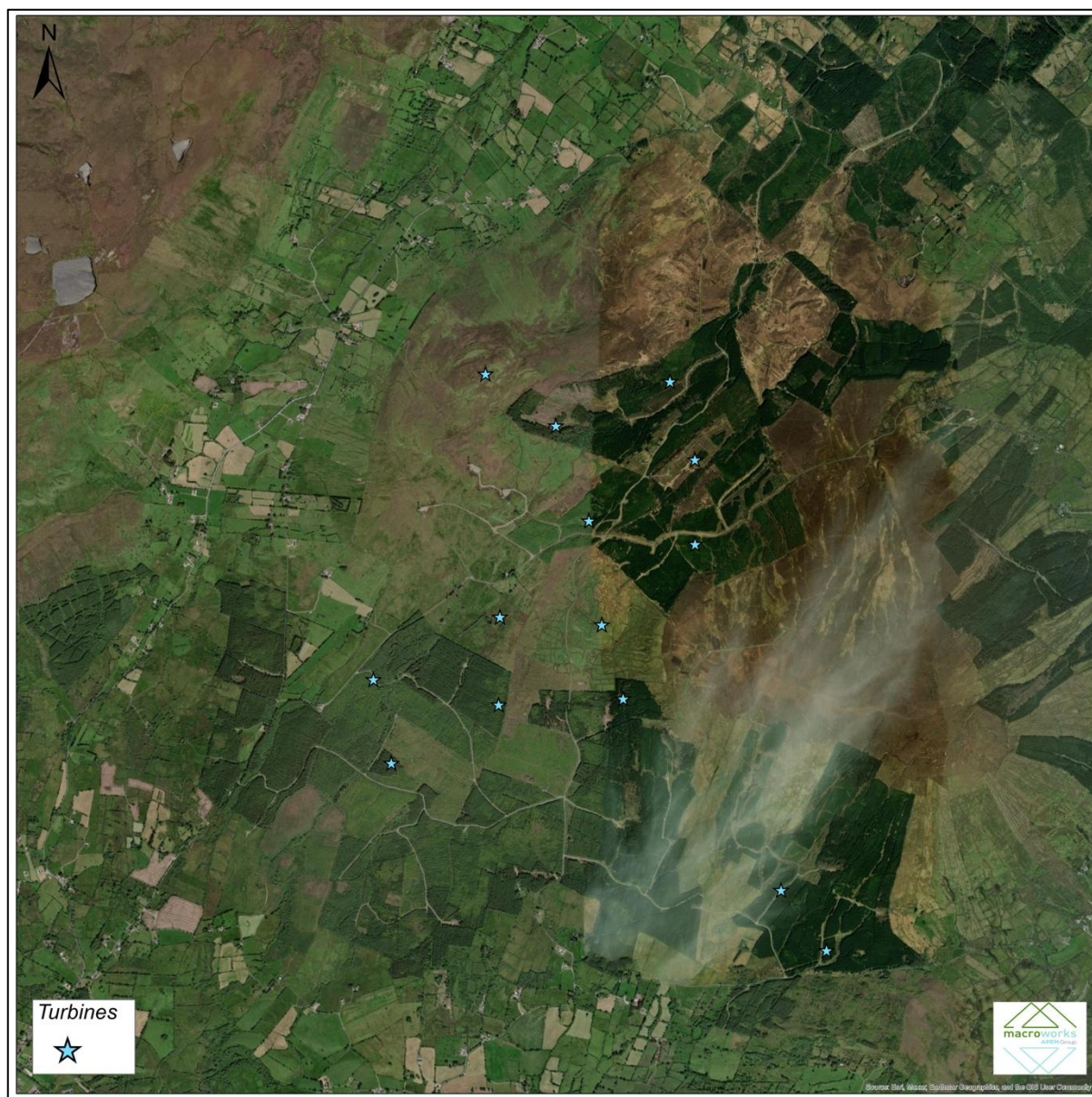


Figure 13-2: Landscape context of the proposed wind farm site and central study area

13.3.1.1 Landform and Drainage

Wind Farm Site and Central Study Area

The proposed development is located across a plateau of rolling hills and ridges within the Dartry Mountain range, which includes Saddle Hill and Dough Mountain (refer to Figure 13-3). Saddle Hill rises to a height of 379 m AOD, while Dough Mountain reaches a maximum elevation of 461 m AOD. The terrain dips into a broad valley to the west of the site and is contained on the opposite side by Crocknagapple Hill (372 m AOD). Other notable escarpments, ridges, and hilltops within the central study area include Thur Mountain (442 m AOD) to the east of the site and Larkfield Hill/O'Donnell's Rock (305 m AOD), a distinctive ridge formation situated in the southern extent of the central study area. In terms of watercourses, the nearest river to the site is the Ballagh River, situated within a broad valley approximately 1.8 km west of the site. The Scardan River, Owenmore River, and River Bonet all flow through the settlement of Manorhamilton, to the southwest of the site. The central study area is also punctuated by

numerous small lakes and streams, including Munakil More Lough to the south of the site, Sandy Lough to the west, and Lough Gillaganleane and Lough Tiernan to the north.



Figure 13-3: Views of Saddle Hill and Dough Mountain from transitional sloping lands in the southern extent of the central study area.

Wider Study Area

In similar circumstances to the central study area, the wider study area encompasses a varied mix of distinctive escarpments, hilltop summits, and rolling ridgelines. Some of the more notable of these include Benbo (416 m AOD), Aganny Mountain (482 m AOD), Arroo Mountain (523 m AOD), Truskmore Mountain (647 m AOD), Ballaghnebehy Mountain (413 m AOD), and Lackagh Mountain (449 m AOD). – refer to Figure 13-4. The notable number of rolling ridges and mountains within the wider study area creates a distinctive landscape characterised by several broad linear valleys, all of which converge on the settlement of Manorhamilton.

The wider study area is also punctuated by several large, notable loughs. The nearest of these is Lough Melvin, situated to the north of the Dartry Mountains, approximately 5 km north of the site. Upper Lough MacNean is located around 8 km east of the site along the Ireland–Northern Ireland border, whilst Lough Gill is situated approximately 13.5 km southwest of the site. Lough Erne, the second-largest lake system in Northern Ireland, lies on the north-eastern periphery of the study area, some 15 km from the site –refer to Figure 13-4.

The study area also encompasses a short section of coastline at its north-western periphery, comprising river estuaries, broad sandy beaches, and small rocky sea cliffs.



Figure 13-4: Land use and landscape context of the full extent of the central and wider study area

13.3.1.2 Vegetation and Land Use

The study area comprises a varied mix of land uses, encompassing numerous landscape typologies that stretch from the coastline to the elevated and mountainous regions of Leitrim and west Cavan. The site and its immediate surroundings are defined by elevated lands cloaked in a mix of commercial conifer forestry and areas of mountain moorland. To the east and north of the proposed array, the summit of Dough Mountain is principally covered by mountain moorland, while the surrounding sloping lands are dominated by commercial conifer forestry, which often result in a degree of containment, even within these elevated lands. Similarly, the most elevated parts of Saddle Hill are typified by mountain moorland, whereas the surrounding lands are characterised by conifer forestry, which transitions into networks of pastoral farmland as the terrain descends towards the more settled parts of the central study area. The existing Faughary Wind Farm development (refer to Figure 13-6) is also a notable land use feature in the immediate vicinity of the site. The surrounding elevated lands within the wider parts of the central study area exhibit similar land use characteristics to the site, albeit without the presence of wind energy development. The surrounding lowlands between these elevated areas present

a more modified character and are defined by settlements such as Manorhamilton, as well as other forms of built development, including the mineral extraction industry and other types of rural industry.



Figure 13-5: Extensive areas of commercial conifer forestry covering many of the elevated lands within the central study area



Figure 13-6: Existing Faughary Turbines viewed along Saddle Hill

Wider Study Area

The land use characteristics and vegetation in the wider study area are similar to those of the central study area, albeit areas of upland terrain are more prominent. With this increased elevation, there tends to be a higher prevalence of upland land uses such as mountain moorland and areas of conifer forestry. In the north-east of the wider study area, the local elevated lands across the border in Northern Ireland have a strong working upland character, with commercial conifer forestry cloaking much of the land. In contrast, the elevated lands in the wider southern and western extents of the study area present a more naturalistic character, most notably along the uplands in the wider western area. Here, the most elevated lands tend to be cloaked in undisturbed areas of mountain moorland interspersed with rocky outcrops. Notwithstanding, the wider southern part of the study area encompasses the majority of existing wind energy developments within the study area, including Tullynamoyle Wind Farm, Garvagh Glebe Wind Farm and Black Banks Wind Farm. The sloping transitional lands south of Lackagh Mountain and in the surrounds of Carrane Hill, on the southern periphery of the study area, are characterised

by numerous existing wind energy developments, most of which rise from extensive areas of commercial conifer forestry, including Tullynamoyle Wind Farm.

The wider study area also encompasses numerous settlements, the largest of which tend to be located within the coastal parts of the study area, particularly within its north-western quadrant in county Donegal and include Ballyshannon and Bundoran. Indeed, the settled parts of the landscape are typically encircled by areas of pastoral land, as these tend to represent the lowland parts of the surrounding landscape.

With regard to vegetation, the most notable areas are associated with commercial conifer forestry and networks of interconnecting hedgerows that define the agricultural lands within the transitional and lowland parts of the landscape. The surrounding lakelands and river valleys are often bounded by areas of mature riparian vegetation. The shoreline of Lough Gill encompass extensive tracts of dense woodland within its surrounding landscape context, contained to the south by Killerry Mountain - refer to Figure 13-4.

13.3.2 Landscape Policy Context and Designations

13.3.2.1 *The Department of Environment, Heritage and Local Government Wind Energy Development Guidelines 2006 and Draft Revised 2019 Wind Energy Development Guidelines*

The Wind Energy Development Guidelines (2006) provide guidance on wind farm siting and design criteria for a number of different landscape types. The site of the proposed development is located within a landscape that is most consistent with the 'Transitional Marginal Landscape' landscape type, whilst parts of the surrounding landscape of the central and wider study area are also consistent with the 'Mountain Moorland' and 'Hilly and Flat Farmland' landscape types. Siting and design recommendations for the most relevant landscape type, 'Transitional Marginal Landscapes', include the following:

Transitional Marginal Landscapes:

Location – *“As wind energy developments, for reasons of commercial viability, will typically be located on ridges and peaks, a clear visual separation will be achieved from the complexity of lower ground.”*

Spatial extent – *“Wind energy developments in these landscapes should be relatively small in terms of spatial extent. It is important that they do not dominate but achieve a balance with their surrounds, especially considering that small fields and houses are prevalent.”*

“4(a) Wind energy development with regular spacing and linear layout – may not be appropriate due to the undulation of the land from as well as limited field pattern.”

“4(b) Wind energy development with irregular spacing and random layout -is more appropriate given the relative undulation of the setting.”

“4(c) Large wind energy development straddling two landscape character types within the same visual unit can create visual ambivalence and, thus, negative tension between the two character types involved.”

Spacing - *“All options are possible, depending on the actual landscape characteristics. However, irregular spacing is likely to be most appropriate.”*



- Layout -** *“The likely location of wind energy developments on ridges suggests a linear or staggered linear layout whereas on broader hilltops they could be linear or clustered.”*
- Height -** *“...where the upper ground is relatively open and visually extensive, taller turbines may be more appropriate.”*
- “...the profile can be even or uneven, depending on the profile and visual complexity of the terrain involved. The more rugged and undulating, the greater the acceptability of an uneven profile provided it does not result in significant visual confusion and conflict.”*
- Cumulative -** *“This would have to be evaluated on a case-by-case basis, but great caution should be exercised. The spatial enclosure often found in transitional marginal landscapes is likely to preclude the possibility of seeing another wind energy development. However, should two or more wind energy developments be visible within a confined setting a critically adverse effect might result, depending on turbine height and wind energy development extent and proximity.”*

Evaluation of Siting and Design Recommendations in relation to the Proposed Project

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 the one, which is considered to be most applicable. The 2006 Guidance specifically states:

“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 ...”.

In combination with the recommendations for Transitional Marginal Landscapes, the siting and design guidance for the Mountain Moorland and Hilly and Flat Farmland landscape types have also been considered in the design of the turbine layout for the proposed Lissinagroagh Wind Farm. This approach reflects the complex landscape pattern and composition of the central and wider study areas. The proposed project is broadly consistent with, and compliant with, the guidance notes for all three landscape types. However, it is particularly consistent and compliant with the guidance for the Transitional Marginal Landscapes type, within which the proposed project is principally situated.

A key consideration in this instance was the locational guidance, which states, *“Wind energy developments may be located at lower levels in extensive areas of this landscape type, where they will be perceived against a relatively complex backdrop.”* Although the general spatial extent recommendation for wind farm development in *Transitional Marginal Landscapes* is relatively limited, the site and its surroundings are located across a broad collection of hilltops and ridges, which limits its potential to be perceived at its full scale and extent. Indeed, the dispersed nature of the proposed turbine array, has the potential to notably diminish the perceived scale and extent of the development, which largely aligns the proposed turbine array with the guidance set out for the *Transitional Marginal Landscapes* landscape type. It is also important to note that the landscape types and guidance set out in the 2006 WEDGs has not changed within the draft revised 2019 WEDGs, and in this regard, it is deemed that the proposed project is consistent with the guidance set out in both documents.



Siting in Relation to Individual Properties ('Setback')

Section 6.18 of the Draft Revised WEDG (2019) refers to appropriate setback distances for visual amenity purposes. The guidelines outline a mandatory minimum setback distance of "500 meters" 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 Specific Planning Policy Requirements (SPPR) 2.

Evaluation of 'Setback' Recommendations in relation to the Proposed Project

The nearest residential dwelling to any of the proposed turbines is 763 m which fully complies with the setback distance outlined in both the current 2006 Guidelines (i.e. >500m) and the Draft Revised WEDG (2019), which in this instance is 740m (4 x 185m the maximum tip height).

It is important to note that the proposed project has been designed and sited to adhere to both the guidelines in the current (2006) WEDGs and have complied with the Draft Revised WEDG (2019) to the extent that they represent current best practice.

13.3.2.2 Leitrim County Development Plan 2023-2029

Leitrim Landscape Character Assessment 2023

The current Landscape Character Assessment identifies 17 contrasting Landscape Character Types (LCTs) within County Leitrim and a further 14 Landscape Character Areas (LCAs). The proposed project is contained across LCT 5 – Moorland Plateau, LCT 6 – Moorland Hills and LCT 7 – Upland Farmland and Foothills, whilst the surrounding central study area also includes LCT 8 – Valleyed Farmland. Refer to Figure 13-7.

With regard to LCAs in County Leitrim, the proposed development is wholly located in LCA 4 – Arroo Mountain Outliers (refer to Figure 13-8), which is described as "a large mountain complex which rises above Lough Melvin, Glenade and Lough Macnean Upper. It has contrasting elements of moorland plateaus, moorland hills and farmed slopes. The area is dominated by Arroo Mountain, which rises to 523m AOD. Other summits include Sheenun, Dough Mountain and Thur Mountain reaching 421, 462 and 410 m AOD respectively. These summits are separated from each other by high, remote, settled valleys." With regard to landscape sensitivity and quality of LCA 4, the current landscape assessment notes that the "landscape is generally considered to be in good condition albeit with some signs of dereliction in the lowland farmed areas where post and wire fences have replaced hedgerows", however, the development plan also states "the areas of moorland plateaus are particularly sensitive to change owing to the distinctive character of the mountain skylines, scenic quality, wilderness like quality and visual openness. These landscapes present as distinctive skylines and landmarks viewed from much of the surrounding lowlands. They are sensitive to changes which would interfere with important unique skyline views available from the lowlands".

The current landscape assessment also includes several conservation recommendations for this LCA, some of which are relevant to the proposed development and are outlined below:

- Traditional stone wall boundaries and hedgerow boundaries are preferable to post and wire fences;
- Retention of open areas of mountain moorland, heath and grassland. Retain views to and from these mountain skylines and lowland farmland;

Other LCAs within the central study area include LCA 2 – Lough Melvin Lowlands, LCA 8 – The Boleybrack Uplands and LCA 9 – The Northern Glens and Central Lowlands.

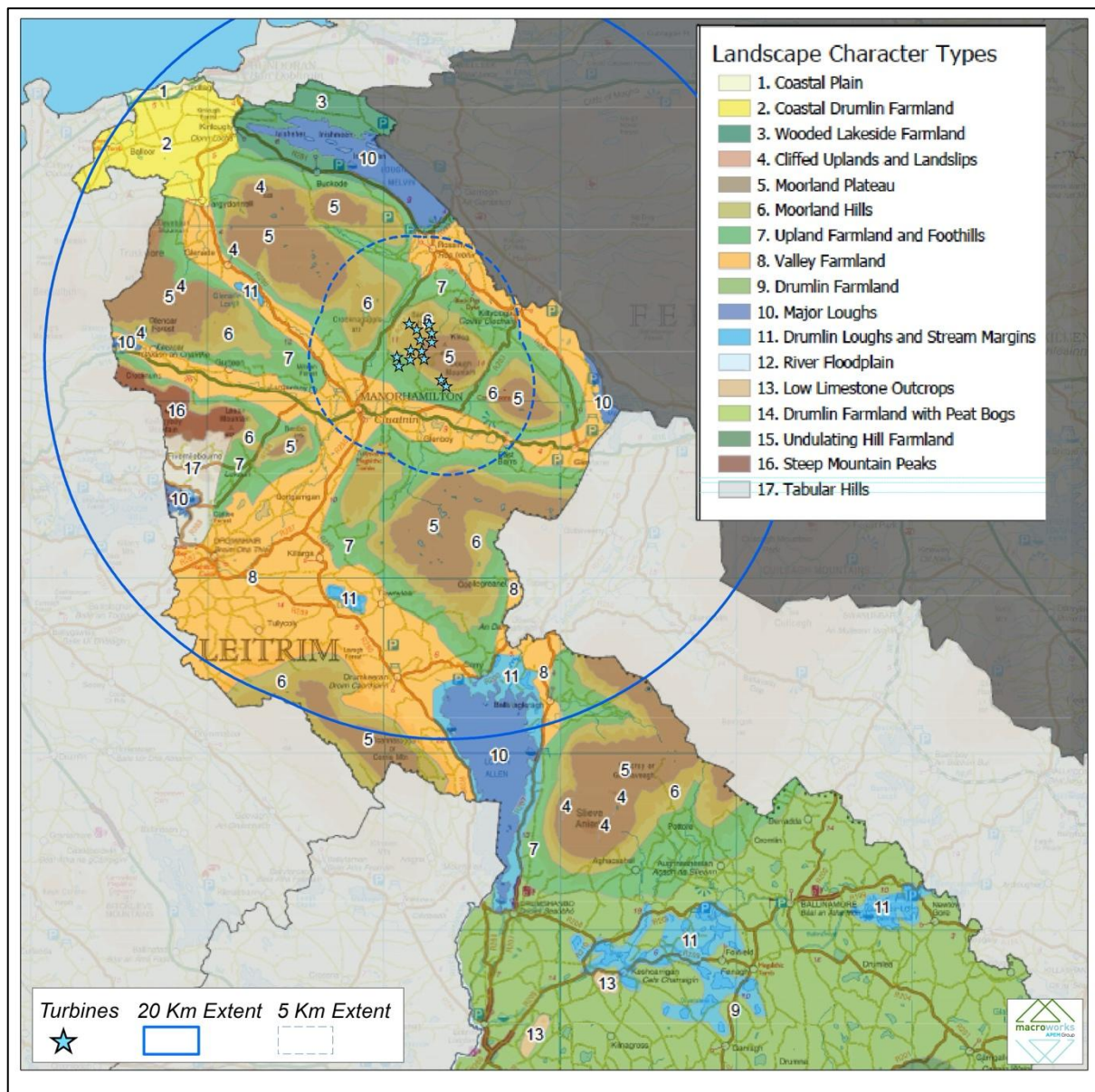


Figure 13-7: Excerpt from the current Leitrim County Development Plan 2023-2029 showing the proposed turbines in relation to Landscape Character Types



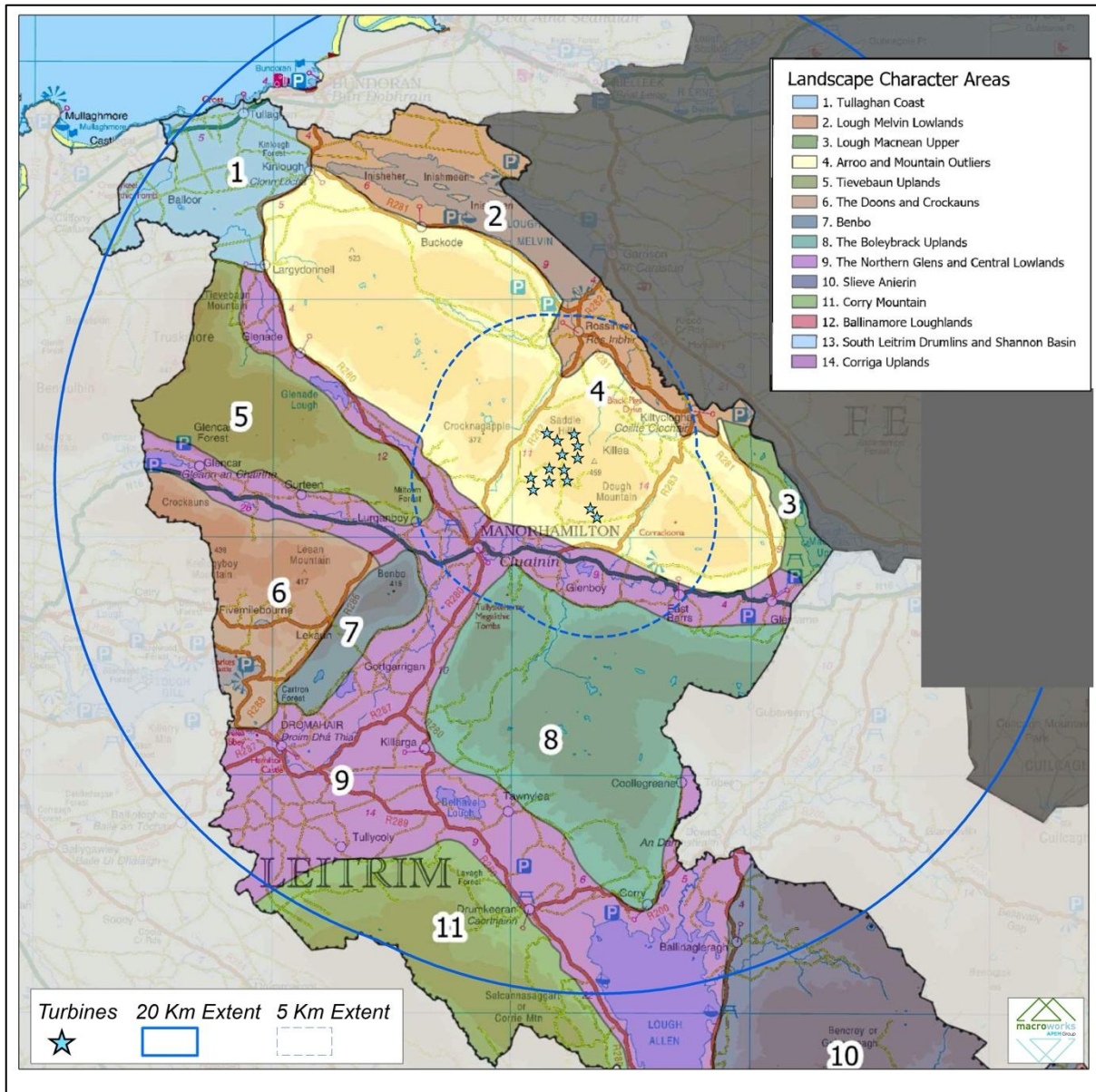


Figure 13-8: Excerpt from the current Leitrim County Development Plan 2023-2029 showing the proposed turbines in relation to Landscape Character Areas

Leitrim CDP – Appendix VII – Review of Designations

In addition to the landscape assessment 2023, the current Leitrim County Development Plan 2023-2029 includes a document landscape designations throughout the county (refer to Appendix VIII of the current CDP). This includes a map of the landscape designations for County Leitrim, which includes eight ‘Areas of Outstanding Natural Beauty’ (AONB) and twelve ‘Areas of High Visual Amenity’ (AHVA).

The proposed project is not contained within an AONB designation, however it is located across area ‘B3 – Dough Mountain’ AHVA. This designated area is described as “an upland landscape with a smooth rounded mountain skyline which overlooks the valley landscape to the south presenting a recognisable skyline and conferring a sense of place on the local area. Visitors at elevated locations can enjoy panoramic views of the adjacent hills and lowlands. The mountain summit and surrounding elevated areas features a landcover of peat bog and is generally remote and tranquil”.



This importance of this landscape designation is outlined below, as defined in the current County Development Plan:

- *“Mountain moorland landscape at higher elevations is remote and tranquil away from minor roads;*
- *Panoramic views of the valley landscapes and surrounding hills from elevated locations;*
- *Moorland landscape features naturally occurring peat bog landcover; and*
- *High levels of tranquillity and sense of remoteness away from settlements and roads and wind turbines on the adjacent Saddle Hill”*

The central and wider study area also encompass several other AHVA and AONB designations, consisting of;

AONB

- A2 – Lough Melvin
- A3 – Mountains and Glens of North Leitrim
- A4 – Lough Gill, Leean Mountain and Environs
- A5 – Benbo
- A6 – The Boleybrack Mountains
- A7 – Lough Allen

AHVA

- B4 – Thur Mountain
- B5 – Lough Macnean Upper and Environs
- B7 – Corry Mountain

Landscape policy and objectives are included in section 11.3 of the current Leitrim County Development Plan. Some of the most relevant landscape policy and objectives to the proposed development includes policies LCA POL 2, LCA POL 3, LCA POL 4 and objectives LCA OBJ 1 and LCA OBJ 2.



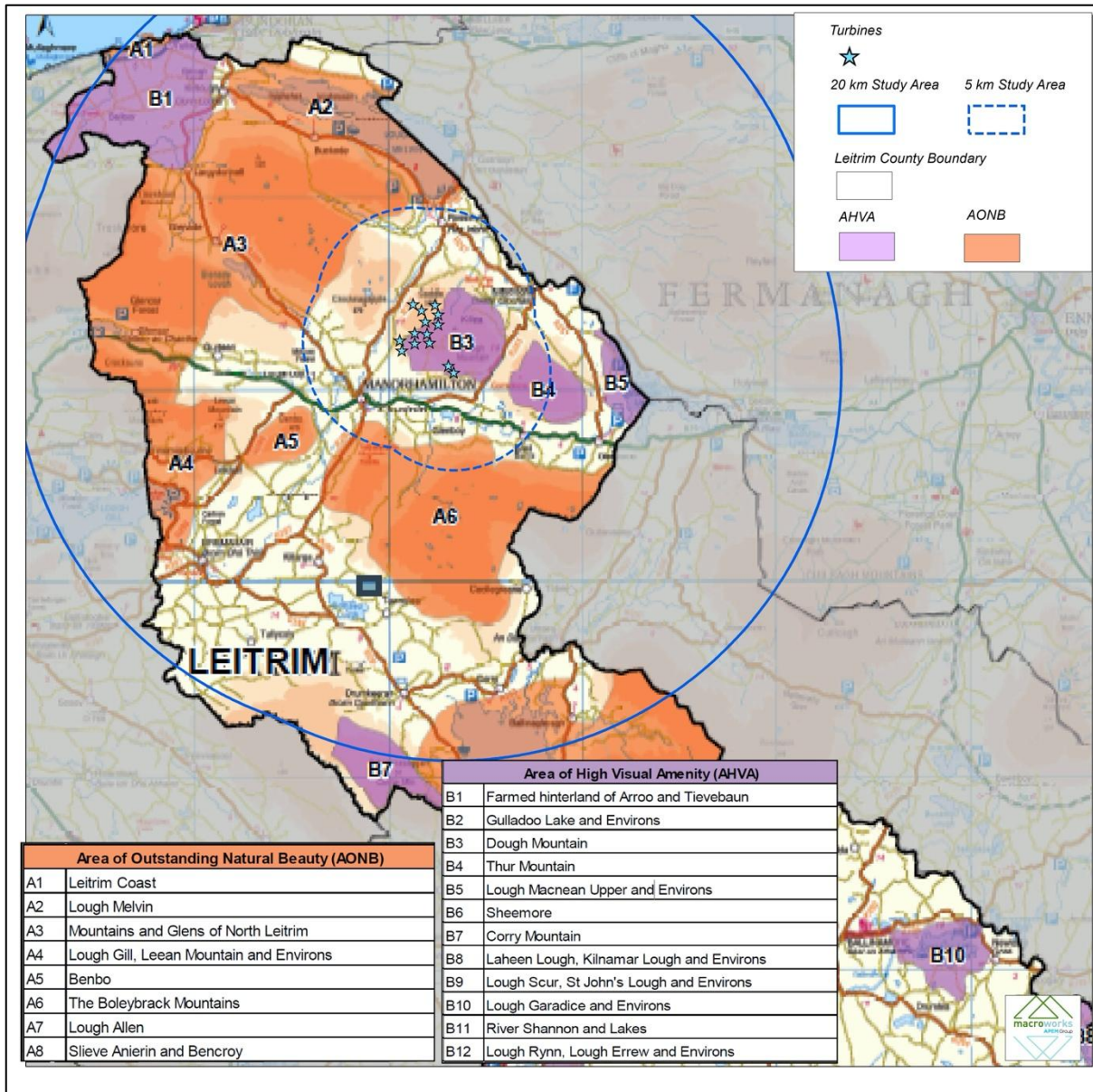


Figure 13-9: Excerpt from the current Leitrím County Development Plan 2023-2029 showing landscape designations in relation to the proposed turbines

Leitrím County Renewable Energy Strategy (RES) 2023

The current Leitrím CDP includes a RES 2023 in Appendix X. This comprises ‘Part A – Renewable Energy Strategy for County Leitrím’ and ‘Part B – Landscape and Visual Capacity Study for Wind Farms and Wind Turbine’. Section 6.1 Wind Energy of the Part A document is of most relevance to the proposed development and states that “having combined the technical and mapping analysis (Step 1) and the Landscape and Visual Capacity Assessment (Step 2), opportunities for a new wind farm are limited. There are no areas where new wind turbines would be considered ‘acceptable in principle’”.

Nonetheless, the RES 2023 outlines areas with ‘Viable Wind Speeds’ and ‘Available Areas’ on figure 6.3 of the Part A document. Whilst the current Wind Energy Strategy notes that areas identified as ‘Available Areas’ “do not correspond with ‘acceptable in principle’ status for wind energy”, these take account of constraints posed by features such as “European and Ramsar protected sites, heritage and monuments, settlements and existing infrastructure/ material



assets.....and also take into account a setback distance of 500m from all sensitive receptors consistent with the Wind Energy Guidelines of 2006 and the draft 2019 WEDGs.”

The Part B document gives a comprehensive analysis of all LCAs within Leitrim and their potential capacity to accommodate wind farm development. With regard to LCA 4, “the LCA overall is of some considerable scenic quality and would be highly sensitive to wind turbines. Some limited moorland areas in the vicinity of Dough Mountain and Saddle Hill may be considered subject to detailed design, having regard for landscape and visual constraints including potential cumulative effects with other wind turbines”. Overall, the assessment provided in Appendix X Part B tends to highlight that whilst LCA 4 is of some scenic quality, this tends to relate to its western and north-western aspects, where ridgelines and skylines are more distinctive and have a lesser influence from built forms, such as the existing turbines at Saddle Hill.

The Part B study concludes with an overall summary in relation to potential wind energy capacity in County Leitrim and states although “there is limited capacity to accommodate future development in the form of wind turbines and wind farms, it is acknowledged that areas of upland moorland where rolling landform and consistency of landcover could be deemed worthy of further assessment to ascertain capacity to accommodate a limited number of wind turbines. Such areas may also comprise altered landscapes due to man-made influences such as commercial forestry”. Refer to Section 13.8 for assessment of potential landscape effects.

Policy and objectives relating to wind energy designations are included in section 6.1.6 of the current RES 2023, those deemed relevant to the proposed development are included below:

Objective W1: Promote appropriate wind energy development in Leitrim

Policy W1.1: Proposals for on-shore wind farm development will be determined in accordance with the Wind Energy Development Guidelines and County Development Plan policy framework.

It should also be noted that the RES 2023 document includes Table 7-1, which relates to a summary of targets and actions with regard to renewable energy. With specific regard to renewable electricity, it notes that one of the delivery actions is to enable “an increase in wind energy generation by 83 MW through wind farm extensions, repowering existing wind farms and additional wind farms (taking the total capacity in the county to 175MW).”

13.3.2.3 Northern Ireland Landscape Character Assessment

Whilst the proposed development is entirely contained within County Leitrim, the northeast quadrant of the study area encompasses parts of Northern Ireland. Thus, it is important to consider landscape designations within Northern Ireland in the study area.

The Northern Ireland Landscape Character Assessment (NILCA 2000) divides the counties of Northern Ireland into 130 no. geographically distinct Landscape Character Areas (LCAs). The nearest and most relevant LCAs to the proposed project are ‘LCA1 – The Garrison Lowlands’, ‘LCA 4 – the Lough Navar and Ballintempo Uplands’ and ‘LCA 5 – The Lough Macnean Valley’.

The Northern Ireland Regional Landscape Character Assessment (NIRLCA) 2015 is currently available online. This document is prepared at a broader scale than the original Landscape Character Assessment from 2000 and divides Northern Ireland’s landscape into 26 no. Regional LCAs compared to the 130 no. from the earlier document. The nearest and most relevant landscape character area is ‘LCA 1 – Fermanagh Caveland’ which cloaks much of the lands within Northern Ireland within the study area. The ‘LCA 2 – Lough Erne Lakeland is also contained within the northern periphery of the study area in the surrounds of the settlement of



Belleek. With regard to LCA 1, the more relevant of the two LCAs within the study area, it is described as “*extensively rural and undeveloped Fermanagh Caveland*” and encompasses “*forested limestone uplands*” and more dramatic upland areas comprising scarps to the north and west.

As with the Landscape Character Assessment 2000, there are no general sensitivity levels provided for each LCA. Although the Regional Landscape Character Assessment provides a more up-to-date analysis of the landscape incorporating development that has taken place in the last 15 years, it is understood that it will not supersede the finer scale assessment from 2000.

13.3.2.4 Fermanagh and Omagh District Council – Local Development Plan 2030

The Local Development Plan (LDP) 2030 for Fermanagh and Omagh District Council includes a sub-section of the landscape titled ‘Landscape – Context and Justification’ commencing at sub-section 5.41 of the current LDP. It notes that the council took a Landscape Character Review for Fermanagh and Omagh and also undertook a Landscape Designations Review. Within this, the council has designated three Special Countryside Areas (SCAs), which are described as “*exceptional landscape, wherein the quality of the landscape and unique amenity value is such that the require protection from inappropriate development*”. These designations occur within the study area and relate to several small islands along Lough Macnean and Lough Melvin, whilst Cuilcagh Mountain within County Fermanagh is also classified with an SCA designation. It should also be noted that the LCD sets out Areas of High Scenic Value (AoHSV) which are described as “*of a relatively unspoilt nature, and which provide an attractive setting of local importance*”. The principal AoHSV designation within the study area relates to Cuilcagh Mountain and the lands to the north towards Blecoo. Landscape policies set out for these designations are outlined in the LCD and include LO2 and LO3.

It should also be noted that the Landscape Character Review sets out a comparison on the LCAs identified within the NILCA and the Fermanagh and Omagh District Council Landscape Character Review 2018. Within this, the relevant LCA boundaries, which include LCA 1, LCA 4 and LCA 5, remain unchanged in the 2018 review.

13.3.2.5 Cavan County Development Plan 2022-2028

Whilst the proposed development is entirely contained within County Leitrim, the Cavan County bounds is located some 9km east of the nearest turbine, and thus it is important to consider landscape designations within County Cavan in the study area.

A Landscape Character Assessment was carried out for Cavan and has been incorporated into the current County Development Plan. The County Development Plan divides Cavan into five Landscape Character Areas. The only relevant LCA within the study area is the Area1: Cuilcagh-Anierin Uplands of West Cavan, which occurs throughout the southeast extent of the wider study area. This LCA includes a ‘high landscape area’ identified as ‘Upland Areas West Cavan’, and comprises “*an extensive area of hill and mountain country*” whilst the River Shannon and the Cuilcagh Mountains are other notable landscape feature. The landscape is characterised by “*open, unenclosed, treeless, upland hill country with occasional isolated farms and outbuildings sited in shallow valleys or under the lee of ridge lines*”. It is noted that the “*landscape is extremely fragile and sensitive to any incompatible intrusion by unrelated or unsympathetic development*” whilst “*scenic amenity value is exceptional and potentially significant in the context of hill walking and outdoor "pursuits" activities*”.

The current CDP also notes that this LCA contains numerous lakes and lakeside/riverside amenities, walking routes and numerous county heritage sites.



13.3.2.6 Donegal County Development Plan 2024-2029

Whilst the proposed development is entirely contained within County Leitrim, the Donegal county bounds is located some 14km north of the proposed project, and thus, it is important to consider landscape designations within County Donegal within the study area.

The current CDP includes Chapter 11 Natural and Built Heritage. The main aim of this chapter is to “conserve, protect and enhance the County’s natural, built and cultural heritage for future generations and encourage appreciation, access and enjoyment of these resources”. The current CDP references the Landscape Character Assessment for County Donegal, which was originally prepared in 2016. This divides the county into Landscape Types and 44 geographically specific Landscape Character Areas. Landscape character areas ‘LCA 21- Lough Derg Uplands & Lakelands’ and ‘LCA 42 – Donegal Bay Drumlins’ are the only LCAs within the study area.

The current CDP for County Donegal also categorises the landscape into ‘3 layers of value’ shown on map 7.1 of the current plan. These include ‘Areas of Especially High Scenic Amenity (ESHA)’, ‘Areas of High Scenic Amenity (HSA)’ and ‘Areas of Moderate Scenic Amenity (MSA)’. The southernmost areas of County Donegal are classified with the MSA designation and are backed by HSA classification in the surrounds of Assaroe Lake and Bundoran. The only ESHA classification within the study area in Donegal occur along its north-westernmost periphery along the coastline west of Ballyshannon. Otherwise, areas along the Donegal county boundary within the wider study area are classified as MSA, whilst areas further north of the county boundary area classified as HAS.

13.3.2.7 Sligo County Development Plan 2024-2030

The nearest parts of County Sligo within the study area are located some c. 13 km west of the proposed project. Thus, it is important to consider landscape designations in County Sligo within the study area.

A Landscape Character Assessment was prepared for County Sligo and forms part of the current CDP. The Development Plan subdivides the county into several landscape designations, included below:

- **Normal Rural Landscape:** areas with natural feature (e.g topography, vegetation) which generally have the capacity to absorb a wide range of new development forms- these are farming areas and cover most of the County.
- **Sensitive Rural Landscapes:** 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:** distinctive and conspicuous natural features of significant beauty or interest, which have extremely low capacity to absorb new development – examples are the Ben Bulbin plateau, mountain and hill ridges, the areas adjoining Sligo’s coastline, most lakeshores etc.

Due to the varied landform and landscape typologies within the wider western extent of the study area in County Sligo, this part of the study area encompasses a mix of sensitive rural landscapes, normal rural landscape and visually vulnerable areas. Indeed, many of the most elevated and remote parts of Sligo within the study area are contained within areas classed as ‘Sensitive Rural Landscapes’ or areas noted as ‘Visually Vulnerable’, whilst much of the lowland and settled areas are classed as ‘Normal Rural Landscapes’.



13.3.3 Visual Baseline

13.3.3.1 Zone of Theoretic Visibility

A computer-generated ZTV map has been prepared to illustrate from where the proposed project is potentially visible. The ZTV below is based on a tip height of 185 m as a worst-case scenario for potential visibility within the study area. A large scale map of a ZTV showing the potential visibility up to the highest possible hub height of the proposed turbines is also included in Appendix 13.2. The ZTV map is based solely on terrain data (bare ground visibility), and ignores features such as trees, hedges or buildings, which may screen views. Given the complex vegetation patterns within this landscape, the main value of this form of ZTV mapping is to determine those parts of the landscape from which the proposed project will definitely not be visible, due to terrain screening within the 20 km study area. It should be noted that the ZTV encompasses the potential visibility for all proposed turbine tip height ranges. (i.e. 180-185m).

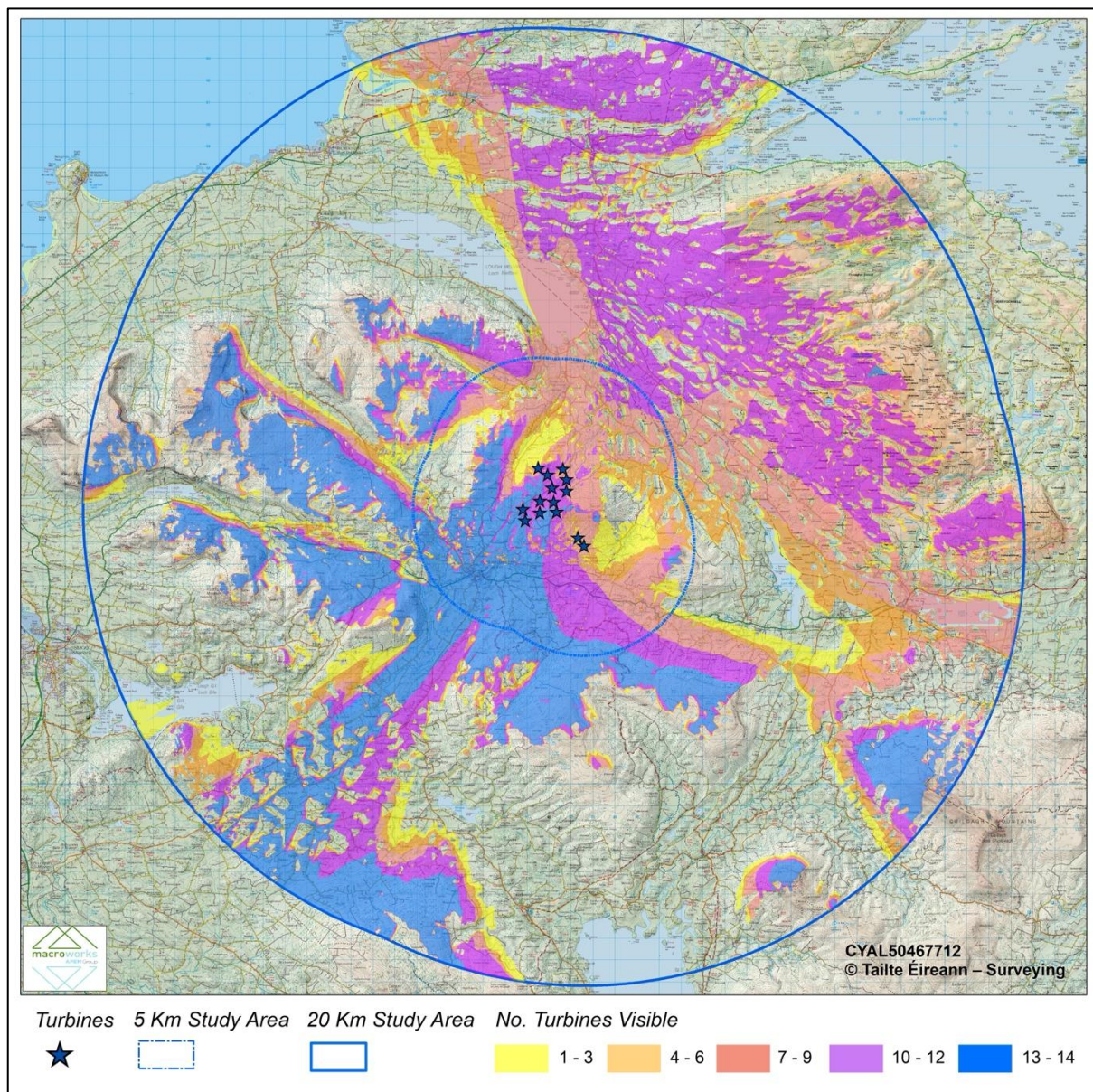


Figure 13-10: Bare-ground Zone of Theoretically Visibility (ZTV) Map based on a turbine tip height of 185 m (see Appendix 13-2 for a larger scale map)

The following key points are illustrated by the 'bare-ground' ZTV map:

- The ZTV pattern is relatively sporadic as a consequence of the complex landforms within the central and wider study area, which comprises broad ridges, elevated mountainous terrain, broad valleys, and rolling farmlands.
- The most notable aspect of the ZTV is the star-like pattern that emanates from the settlement of Manorhamilton, extending along the valleys and across the hills that contain the wider settlement.
- Comprehensive theoretical visibility of up to ten of the turbines is afforded throughout the settlement of Manorhamilton and its wider surroundings. Comprehensive visibility (blue pattern) of the proposed turbines is also afforded along the neighbouring ridges and elevated terrain to the west and south of the proposed project.
- North of the proposed project, the potential for comprehensive visibility of the proposed turbine array in its entirety is limited as a result of the rolling upland terrain that occurs in the northern half of the site. Furthermore, many of the turbines in the southern half of the site are located at much lower elevations and will be screened by the more elevated parts of Dough Mountain and Saddle Hill. Consequently, the visibility pattern within the northern extent of the central study area is primarily associated with between one and nine of the proposed turbines.
- In the wider northern half of the study area, the potential for turbine visibility begins to increase as the terrain rises north and east of Lough Melvin. Nonetheless, there are some notable areas where the turbines will be entirely screened within the wider northern and north-western extents of the study area, as a result of the elevated rolling upland terrain to the north of Lough Melvin. In terms of settlements in the northern half of the study area, there will be some potential for turbine visibility at the settlements of Rossinver, Garrison, Belleek and Ballyshannon, while there will be no potential for turbine visibility at Bundoran and Kinlough.
- Much of the potential turbine visibility to the west of the site relates to elevated upland hills and ridges, which are typically sparsely populated. Much of the landscape context in the surroundings of both Lough Gill and Glencar Lake will be screened from the proposed turbines, while some intermittent areas of comprehensive visibility will be afforded within the wider south-eastern quadrant of the study area, in the surroundings of the settlements of Dromahair and Ballintogher.
- Within the wider southern extent of the study area, much of the potential visibility is contained by the elevated upland hills and ridges in the surroundings of O'Donnell's Rock and along the alignment of the R280 regional road, as it extends south from Manorhamilton towards Dromahair. There will be no visibility of the proposed turbines at the settlements of Drumkeeran and Dowra, in the wider southern periphery of the study area; however, visibility re-emerges in the wider south-eastern periphery within the elevated lands of north-west Cavan.

13.3.3.2 Views of Recognised Scenic Value

Views of recognised scenic value are primarily indicated within County Development Plans in the context of scenic views/routes designations, but they might also be indicated on touring maps, guide books, road side rest stops or on post cards that represent the area.



All of the scenic routes and views that fall inside the ZTV pattern were investigated during the fieldwork to determine whether actual views of the proposed project might be afforded. Where visibility may occur, a viewpoint has been selected for use in the visual impact appraisal later in this chapter.

Leitrim County Development Plan 2023-2029

Protected views and prospects are identified in Table 13-5 and Figure 13-11 of the current CDP. Many of these locations within the study area are often associated with the lakes and uplands. Whilst several scenic views and scenic routes are contained within the study area, none of these are oriented directly towards the site. All viewpoints that are identified within the study area that fall within the ZTV pattern and are oriented toward the site have been included as a viewpoint within the assessment.

Table 13-5: Scenic designations within the current Leitrim CDP and their relevance to the proposed project

Leitrim CDP Ref:	Relevance to visual impact appraisal?	VP ref no. herein
V1	<u>Not Relevant</u> – View located outside of ZTV	-
V2	<u>Not Relevant</u> – View located outside of ZTV	-
V3	<u>Not Relevant</u> – View located outside of ZTV	-
V4	<u>Not Relevant</u> – View located outside of ZTV and oriented in the opposite direction to the proposed project	-
V5	<u>Yes Relevant</u> - Potential for views of the proposed project, albeit in the opposite direction to the main aspect of visual amenity	VP5
V6	<u>Not Relevant</u> – View located outside of ZTV	-
V7	<u>Yes Relevant</u> – Potential for views of the proposed project, albeit offset from the main aspect of visual amenity	VP11
V8	<u>Not Relevant</u> – View located outside of ZTV	-
V9	<u>Not Relevant</u> – View oriented in the opposite direction to the proposed project	-
V10	<u>Yes Relevant</u> – Potential for views of the proposed project, albeit in the opposite direction to the main aspect of visual amenity.	VP16
V11	<u>Not Relevant</u> – View oriented in the opposite direction to the proposed project and very limited ZTV pattern along this road section	-
V12	<u>Not Relevant</u> – View located outside of ZTV	-
V13	<u>Not Relevant</u> – View located outside of ZTV	-
V14	<u>Not Relevant</u> – View located outside of ZTV	-



V15	<u>Not Relevant</u> – View located outside of ZTV	-
V16	<u>Yes Relevant</u> – Potential for views of the proposed project, albeit offset from the main aspect of visual amenity	VP24
V17	<u>Yes Relevant</u> – Potential for views of the proposed project, albeit offset from the main aspect of visual amenity	VP25, VP26
V18	<u>Not Relevant</u> – View oriented in the opposite direction to the proposed project and primarily outside of the ZTV pattern	-
V19	<u>Not Relevant</u> – View located outside of ZTV	-
V29	<u>Not Relevant</u> – View located outside of ZTV	-

Policies & Objectives

Relevant protected views and prospects policies and objectives within the current Leitrim County Development include policies LD POL 1 – LD POL 6 and objectives LD OBJ 1 and LD OBJ 4.



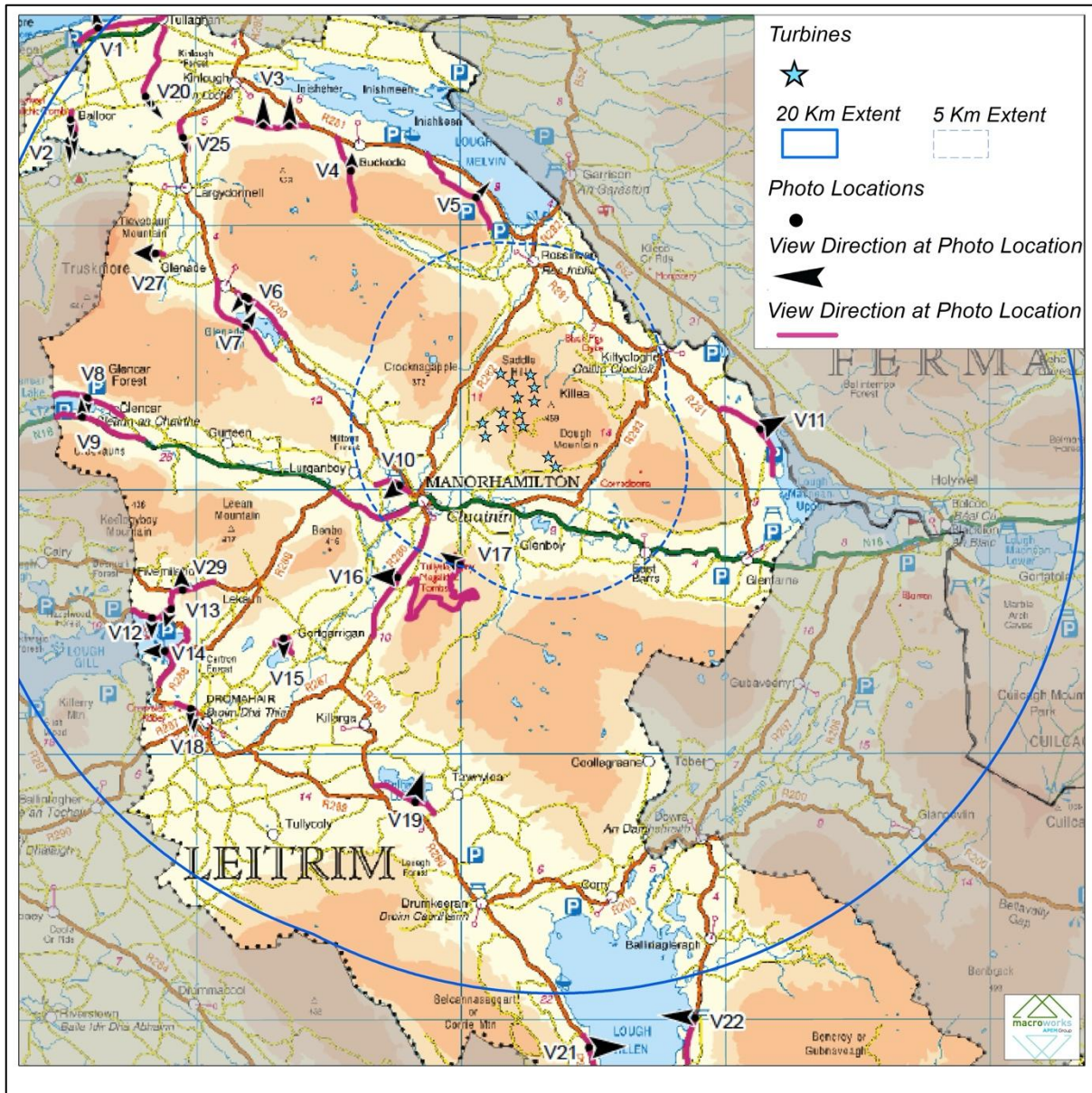


Figure 13-11: Excerpt from the current Leitrin CDP showing scenic designations within the surrounding study area

Northern Ireland Landscape Character Assessment 2000-Views and Prospects

Whilst the NILCA 2000 does not identify specific views and prospects, it does note that some areas within Northern Ireland offer long distance views that are visually sensitive. These are typically upland areas within Northern Ireland and areas along the fringe of rivers and lakes. These areas include some of the more elevated lands in the northeast quadrant of the wider study area and along the shoreline of Lough Macnean Upper, which include potential visibility pattern as highlighted on the ZTV map above (refer to Figure 13-10). As a result, representative viewpoints for assessment will be include from these parts of the study area within the visual impact appraisal below.

Donegal County Development Plan – Views and Prospects

The current county development plan categorises the landscape into three layers of value as noted above and identified on map 11.1 ‘Scenic Amenity’, of the current CDP. The only scenic views within the study area are located along the R267 Finner Road northeast of Bundoran and



along the R231 regional road north of the River Erne estuary at Ballyshannon. It should be noted that the current CDP does not include reference numbers or descriptions for protected views in County Donegal. Both of these designated views are oriented in the direction of the proposed project and are located within ZTV pattern, and thus, have the potential to afford views of the proposed development, albeit from a distance upwards of 17.5km from the site. A viewpoint (VP1) has been included within the visual impact appraisal to represent these protected views. Due to the near distance of both protected viewpoints, combined with their considerable distance from the proposed turbine array, only one representative viewpoint was deemed necessary to represent both protected views.

Sligo CPD 2024-2030 – Views and Prospects

A number of ‘scenic routes’ are identified within the portions of Sligo that occur within the study area. All of the scenic routes within County Sligo within the study area are located outside of ZTV, and thus, are not relevant to the proposed project.

Cavan CDP 2022-2028 – Views and Prospects

The Cavan County Development Plan lists seventeen scenic viewpoints and three scenic routes all of which are also shown on Map 10 of the current CDP. All identified views situated within the 20 km study area are included in Figure 13-7.

Table 13-6: Rationale for selection of scenic designations within the Cavan County Development Plan

Cavan Ref:	CDP	Relevance to visual impact appraisal?	VP ref no. herein
Scenic Views			
Scenic View 1		<u>Not Relevant</u> – View located outside of ZTV pattern	-
Scenic View 3		<u>Yes Relevant</u> – Potential for views to be afforded in the direction of the proposed project	Represented by VP27
Scenic Routes			
Scenic Route 1		<u>Not Relevant</u> – Scenic route located outside of ZTV pattern	-
Scenic Route 2		<u>Yes Relevant</u> – Potential for views to be afforded in the direction of the proposed project	VP22
Scenic Route 3		<u>Yes Relevant</u> – Potential for views to be afforded in the direction of the proposed project	VP27

Policies

Relevant scenic route and view policies within the current Cavan County Development include policies SVP1, SCP2, SR1 and SR2.

13.3.3.3 Centres of Population

The most notable centre of population in relation to the proposed project is the settlement of Manorhamilton, which is located at the intersection of several valleys, approximately 2.5 km south-west of the nearest proposed turbine. The settlement of Manorhamilton is a medium-sized settlement and benefits from a notable degree of scenic amenity due to its location



between several contained valleys and its surroundings of elevated uplands in all directions. The small village of Glenfarne is contained to the southeast of the proposed project, located to the north of the N16 and some 2.7 km from the nearest proposed turbine. The only other settlement within the central study area is the village of Kiltyclogher, located along the north-eastern periphery of the central study area, approximately 5 km from the nearest proposed turbines. There are no other settlements within the central study area.

With regard to the settlement pattern in the surroundings of the site and its immediate landscape context, this typically comprises isolated rural dwellings and small linear clusters of houses, reflecting the remote and elevated nature of the proposed project area. Indeed, the more settled parts of the central study area tend to be well offset from the proposed turbines, often located within the lowland valleys that lie between the upland areas of the central study area.

Outside the central study area, there is a greater concentration of settlements, with the largest located in the wider north-western periphery of the study area. Both Bundoran and Ballyshannon are some of the larger settlements within the study area, situated along the alignment of the N15 National Primary Route. Both are located over 16 km north-west of the proposed turbine array. The riverside settlement of Belleek is also contained within the northern extent of the wider study area, approximately 14 km north of the site, while the lakeside settlement of Garrison lies just over 7 km north of the proposed turbine array.

The southern, eastern, and western extents of the study area encompass a more dispersed pattern of rural settlements. To the east and south-east are the small rural villages of Blacklion and Dowra, located approximately 14 km from the proposed project. Dromahair, Killargue, Drumkeeran, and Ballinagleragh are all situated within the wider southern extent of the study area, with Dromahair being one of the larger settlements, located approximately 14 km south-west of the proposed project.

Although primarily outside the study area, Sligo town is the largest settlement in relation to the proposed project, with its eastern outskirts extending into the wider western periphery of the study area. The central parts of Sligo town are located approximately 22.5 km west of the proposed project.

13.3.3.4 Transport Routes

The principal transport route within the central study area is the N16 National Primary Route, which bisects the wider study area in an east-west direction, running just over 1.7 km south of the proposed turbine array at its nearest point. The N16 connects Sligo to northern Cavan, passing through Manorhamilton within the central study area, after which it merges with the A4, providing a connection to the settlement of Enniskillen within the wider landscape to the east of the study area.

The only other major route corridors within the central study area comprise several regional roads, the nearest of which to the site is the R282 regional road, traversing approximately 900 m west of the proposed turbine array at its closest point. Several other regional roads also extend outward in a star-like form from the settlement of Manorhamilton, including the R280 and R286. Other regional road corridors within the central study area include the R283, located approximately 1.4 km east of the proposed turbines, and the R281, located approximately 3 km north-east of the proposed turbine array. The central study area also encompasses a dense network of interconnecting local roads, some of which pass directly through the site.



Within the wider northern extent of the study area, the N3 National Primary Route and A46 pass through the landscape, following the southern shores of Lower Lough Erne, passing south of the settlement of Belleek and culminating to the east of Ballyshannon. The N15 National Primary Route also occurs within the northern extent of the study area, passing along its north-western periphery, to the east of both Bundoran and Ballyshannon.

13.3.3.5 *Tourism, Recreation and Heritage Features*

In terms of tourism and recreation, the wider area surrounding the proposed project is one that is synonymous with outdoor recreational amenity, as demonstrated by the abundance of scenic driving routes, waymarked hiking and walking trails, and established cycling routes. The region forms part of a wider network of tourism assets that showcase the natural, cultural, and scenic diversity of north Leitrim and the adjoining counties. Prominent tourism and recreation routes within the study area include (Figure 13-12 refers):

- The Wild Atlantic Way - Ireland's premier coastal touring route, which traverses the north-west coast and offers access to many of the area's key scenic and cultural attractions.
- The Eurovelo Cycling Network - an international long-distance cycling route that connects across Europe and passes through this region, offering opportunities for both touring and day cyclists.
- Leitrim Way, Sligo Way, Cavan Way and Miner's Way & Historical Trail National Waymarked Way - all provide scenic hiking routes across the varied and dynamic landscape of this part of the country.
- The Northwest Cycle Trail - a recognised cycling route that loops through Counties Leitrim, Sligo, Donegal, and Fermanagh, linking key settlements and scenic attractions
- Sligo-Leitrim North Counties Railway Trail - a greenway-style trail following sections of the former Sligo, Leitrim and Northern Counties Railway line.
- Ballyshannon Cycle Loops - a network of shorter cycling circuits around Ballyshannon and the northern periphery of the study area.
- Glenfarne Loop Walks - a series of forest and lakeside trails set within Glenfarne Demesne, offering accessible walking routes with views of Lough MacNea and the surrounding uplands.

The Dartry Mountain Range, located within the wider western extent of the study area, forms one of the region's most iconic landscape features and serves as a major tourism and recreational amenity. The range includes prominent summits such as Ben Bulbin, Diarmuid and Gráinne's Bed, and Slievemore, each offering extensive hiking opportunities and panoramic views over Counties Leitrim, Sligo, and Donegal. These upland areas are integral to the scenic character of the northwest of Ireland.

In the northwest periphery of the study area, the coastal town of Bundoran represents another notable tourism destination. Bundoran is a renowned surfing town, drawing both domestic and international visitors, particularly during the summer months, owing to its Atlantic coastline, surf schools, and numerous holiday lets and holiday parks.

Within the 20 km study area there are also multiple lakes offering scenic and recreational amenities including Lough Melvin, Lough Gill, Lower Lough Erne and Lough Allen.

Notable heritage features within the study area include Manorhamilton Castle, c.3.3 km south of the nearest turbine. To the southwest of the site lies Parke's castle, which is located on the



banks of Lough Gill, c.14 km from the nearest turbine, and Creevelea Friary on the outskirts of Dromahair c.15.2 km from the nearest turbine. The Corracloona Court Tomb is located c. 6.5km east of the proposed turbine array and Creevelea Friary is situated c. 15 km to the southwest of the proposed project, located south of Lough Gill.

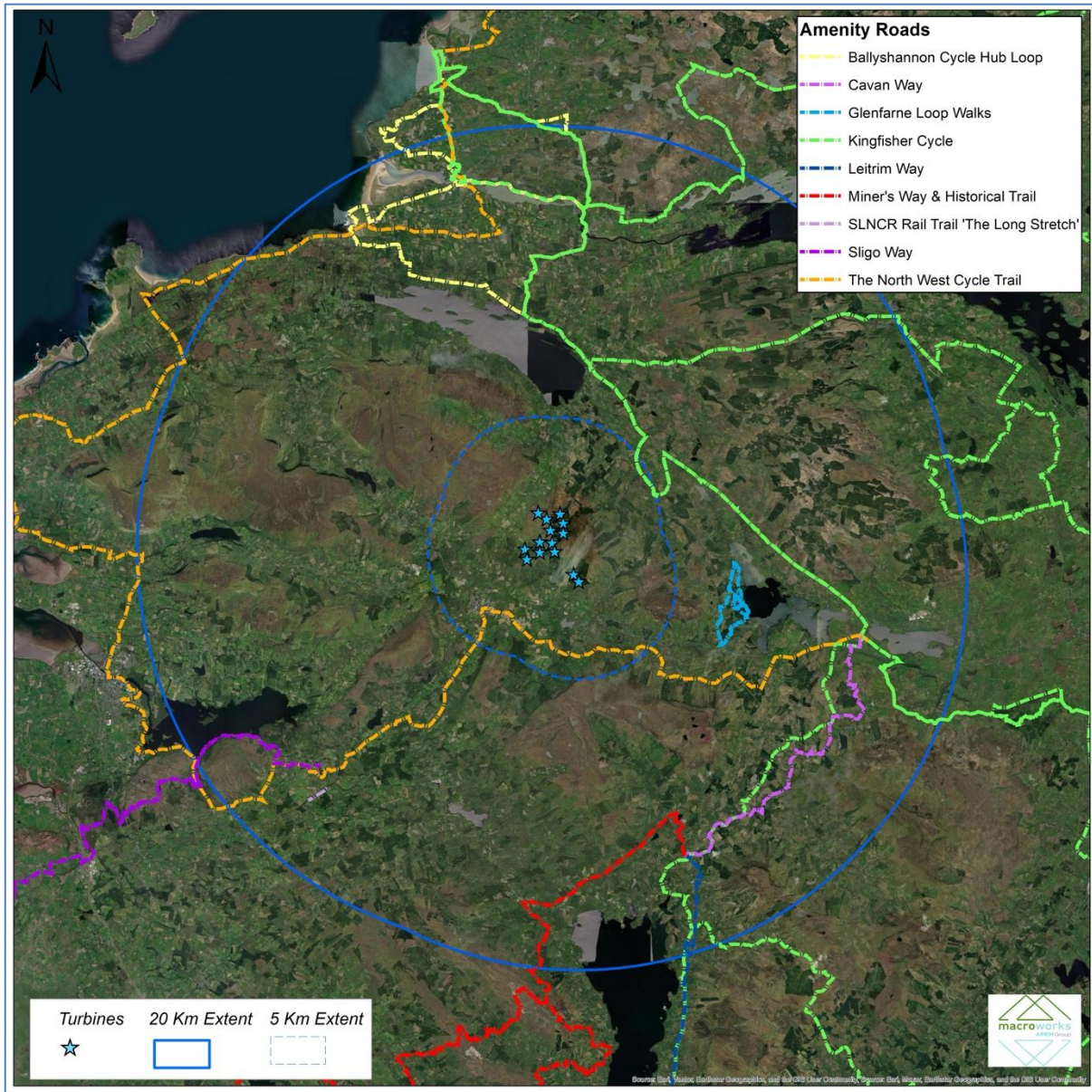


Figure 13-12: Map showing linear amenity features within the study area

13.3.4 Identification of Viewpoints as a Basis for Assessment

The results of the ZTV analysis provide a basis for the selection of Viewpoints (VP's), which are the locations used to study the landscape and visual impact of the proposed wind farm in detail. It is not warranted to include each and every location that provides a view of this 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 was selected that provide representative views of the proposed wind farm from different distances, different angles and different contexts.

The visual impact of a proposed 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 VP 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 the way in which the view is experienced. These are described below.

Key Views (KV)

These VPs 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 (SR/SV)

Due to their identification in County Development Plans, this type of VP 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 VP represents those people who live and/or work in the locality of the proposed project, usually within a 5 km radius of the site. Although the VPs are generally located on local level roads, they also represent similar views that may be available from adjacent houses. The precise location of this VP 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 VPs is necessary in order to sample the spectrum of views that would be available from surrounding dwellings.

Centres of Population (CP)

VPs 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 or its proximity to the site. The VP 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 are relevant VP locations due to the number of viewers potentially impacted by the proposed project. The precise location of this category of VP is not critical and might be chosen anywhere along the route that provides clear views towards the proposed wind farm 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 Viewpoints selected in this instance are set out in the Table 13-7 and Figure 13-13.



Table 13-7: Outline Description of Selected Viewpoints (VPs) - LCV = Local Community Views; SV/SR = Scenic View/Scenic Route; MR = Major Route; CP = Centre of Population; and AH = Tourism, Amenity & Heritage

VP No.	Location	Representative of	Distance to nearest turbine	Direction of view
VP1	R231 at Abbeylands	CP,MR,SR	18.7km T14	NW
VP2	St. Patrick's Catholic Church at Finner	CP,AH	14.9km T2	SW
VP3	Glennasheevar road at Tullyloughdaugh	MR	12.4km T2	SW
VP4	Lough Melvin View Point and jetty at Garrison	SV,AH,CP	7.3km T2	SW
VP5	L21062 at Tawnaleck	SV,LCV	5.3km T14	S
VP6	R281 at Conray	MR,LCV	3.9km T2	SW
VP7	R283 at Kiltyclogher, north east of site	LCV,AH,CP	4.8km T3	SW
VP8	L6117 at Gortnacrieve, northwest of site	LCV,	1.7km T14	S
VP9	L61807 at Raheelin	LCV	2km T2	SW
VP10	L61803 at Lugasnaghta, east of site	LCV	2.3km T3	SW
VP11	L21251 at Largy	LCV,SV	8.3km T9	SE
VP12	L61801 at Cartrongibbagh	LCV	0.94km T9	SE
VP13	Lattone Road at Greaghaphort	SR,LCV	9.1km T12	NW
VP14	L61842 at Cashelaveela, south of site	LCV,SV	1.3km T11	NE
VP15	Tawnyfeacle, southwest of site	LCV	1.5km T10	NE
VP16	Lurganboy Chapel of Ease at Ballyglass	LCV,SV,AH	5.1km T10	NE
VP17	N16 at Tawnymoyle	MR,SR	7.6km T10	NE
VP18	Manorhamilton Castle at Clooneen, southwest of site	CP,AH,LCV,MR	3.3km T10	NE
VP19	L26432 at Manorhamilton	LCV,CP	2.7km T10	NE



VP20	N16 at Moneenshinnagh, south of site	LCV,MR,	2.4km T10	NE
VP21	R283 at Carrigeengeare, south east of site	LCV, MR	1.3km T12	NW
VP22	N16 at Belcoo East	MR, CP,LCV	14.8km T12	NW
VP23	N16 at Kilmakerrill,south east of site	MR, LCV	2.5km T12	NW
VP24	R280 at Ross, southwest of site	LCV,MR,SV	5km T10	NE
VP25	L6204 at Tullysheherny, southwest of site	SV,LCV,	4.8km T10	NE
VP26	Larkfield southwest of site	SV	6.4km T10	NE
VP27	L1013 at Gowlan, Cavan Way	SR,AH	15.3km T12	NW
VP28	Garán na Foraoise at Drumlease	CP	14.6km T10	NE
VP29	St. Michael's Church at Killavoggy	AH,LCV	16.8km T10	NE

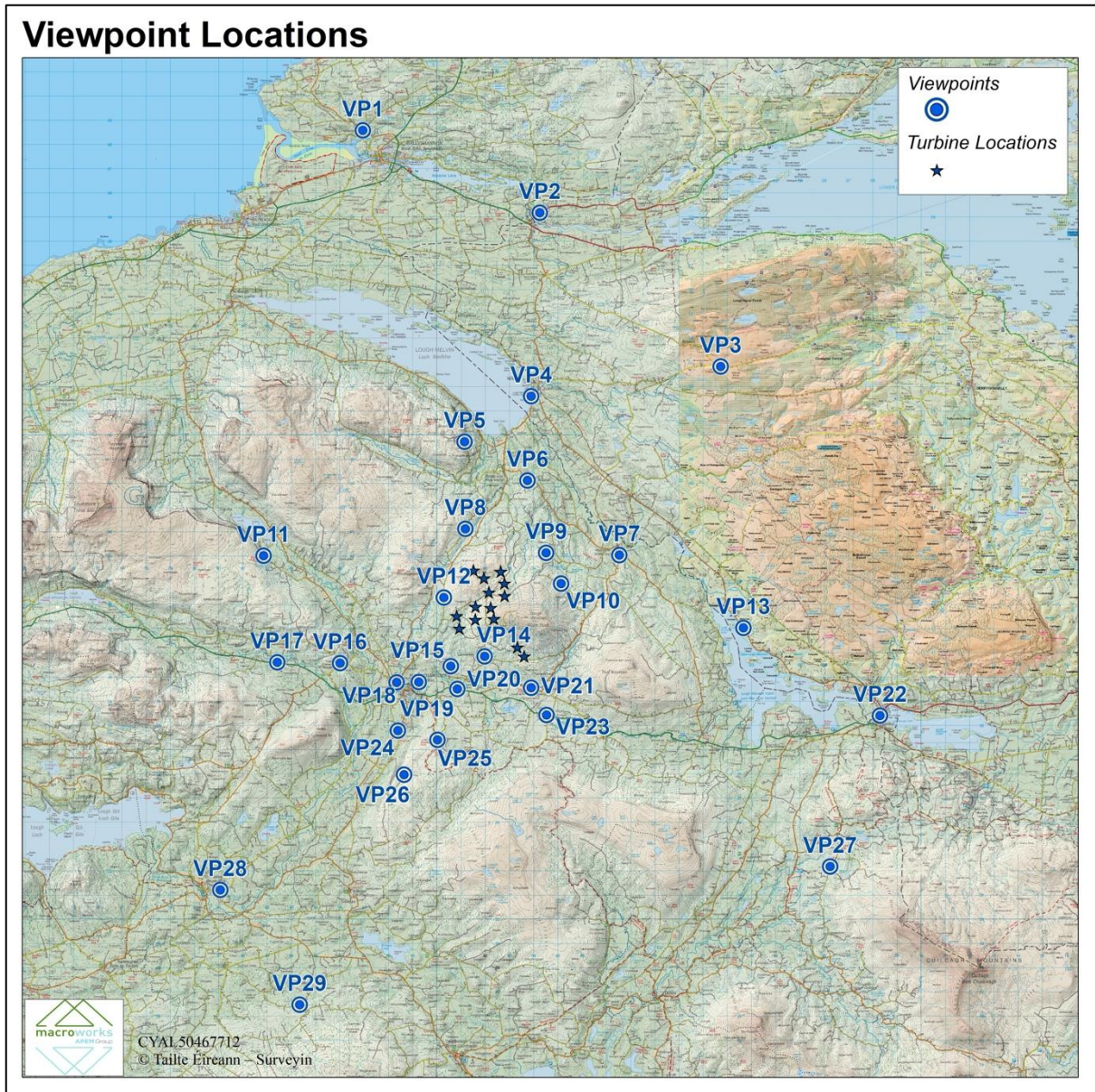


Figure 13-13: Map of Viewpoint Locations

13.4 ASSESSMENT OF EFFECTS

Based on the assessment criteria employed herein, potential significant effects are considered most likely to occur in instances where highly sensitive landscape and visual receptors coincide with high order landscape and visual effects (see descriptions Table 13-1, Table 13-2 and Table 13-4). From previous extensive experience of this type of project in a modified transitional upland setting influenced by other landscape types such as mountain moorland, transitional foothills and river valley landscape contexts, it is considered that potentially significant landscape and visual effects have the potential to occur in the following ways:

Landscape Effects

- a) Irreversible physical effects on sensitive landscape features,
- b) Disruption of sensitive land cover and/or land use patterns,
- c) Substantial and incongruous change to areas of sensitive landscape character,

Visual Effects

- a) A sense of spatial dominance as seen from highly sensitive receptor locations. This is most likely to occur within 3 km of the proposed wind farm site.
- b) Visual clutter and ambiguity as seen from highly sensitive receptor locations. This can occur at any distance but tends to occur beyond 2-3km as turbines become stacked in perspective and a more two-dimensional layout is perceived.
- c) A combination of both of the above effects.

Baseline studies and early-stage assessments specific to the proposed project indicate that some of the most susceptible landscape receptors are located within the wider study area and include areas such as the Dartry Mountains and broad Lakeland areas such as Lough MacNeane Upper, Lough Melvin, and Lough Gill. Nonetheless, there are also several more locally distinctive landscape areas within the central study area, such as Bendoo and O'Donnell's Rock, while the distinctive valley formations that extend outward from Manorhamilton are also notable landscape features in this context.

Outside the central study area, land formations become more prominent, including the distinctive ridgelines of Ben Bulbin, which is among the most recognisable landforms in the country. Similarly, the broad Lakelands in the wider landscape provide a sense of tranquillity and naturalness and would be susceptible to change.

In this instance, the most sensitive visual receptors are the local residents situated along the surrounding local and regional road network, as they are closest to the proposed wind farm site and therefore have the greatest potential to experience notable visual effects. Other susceptible receptors within the central study area include the settlement of Manorhamilton, scenic routes and views, and numerous amenity and heritage features, such as the scenic routes to the south of the site in the vicinity of O'Donnell's Rock, along the R280, and in association with the North West Cycle Trail, Kingfisher Cycle Route, and heritage features within Manorhamilton.

The wider study area also includes a broad range of scenic designations, amenity resources, and heritage features, the majority of which are associated with the uplands and Lakelands.



13.5 DO NOTHING SCENARIO

In a Do-Nothing scenario, the existing conifer plantation at the proposed wind farm site would continue to be managed through rotations of commercial conifer planting and harvesting, while areas of moorland would continue to evolve naturally over time whilst surrounding agricultural farmland will continue to be managed for typical agricultural practices. Given the favourable wind speeds and 'available areas' wind energy classification within the surrounding area, in addition to the precedent set by the existing Faughary Wind Farm (refer to cumulative map Figure 13-7), it is likely that further applications for wind energy development would arise within the surrounding landscape context.

13.6 LIKELY EVOLUTION OF THE BASELINE

In the absence of the proposed project, the surrounding landscape context, character, and visual qualities of the landscape are not expected to change significantly. At the site scale, rotations of commercial conifer forestry are likely to continue, while the surrounding pastoral fields in the lowlands contained between the elevated uplands would likely to be continued to be managed for traditional agricultural practices. There is potential that the existing Faughary turbines would be re-powered with larger and more prominent turbines, resulting in a perceived intensification of built development in the surrounds of Saddle Hill and Dough Mountain.

In terms of vegetation, there is potential for increased areas of planting across both the central and wider study area as a result of local, regional, and national policies relating to the enhancement of biodiversity and biodiversity net gain.

Within the wider surrounding study area, more notable changes in the existing baseline context may occur due to the more varied mix of landscape typologies. Indeed, there is likely to be growth and expansion of urban areas due to an increase in the local population. There is also likely to be an increase in the intensity of renewable energy projects within the study area, with the current Leitrim County Development Plan Renewable Energy Strategy stating that a delivery action in relation to the renewable electricity sector is to enable "*an increase in wind energy generation by 83 MW through wind farm extensions, repowering existing wind farms and additional wind farms (taking the total capacity in the county to 175MW)*".

Nonetheless, any evolution of the baseline context would be undertaken with regard to national, regional, and local planning policy, most notably the Leitrim County Development Plan and surrounding County Development Plans, which promotes the conservation and enhancement of the surrounding rural character while supporting sustainable rural development.

On balance, it is considered that there will be a gradual evolution of the existing baseline context, with some of the more notable changes to the immediate landscape context likely relating to the potential repowering of existing wind farms and development of new wind farms.

13.7 MITIGATION MEASURES

Given the highly visible nature of commercial wind energy developments, it is not generally feasible to screen them from view using on-site measures as would be the primary form of mitigation for many other types of development. Instead, landscape and visual mitigation for wind farms must be incorporated into the early-stage site selection and design phases.

In this instance, the two main forms of landscape and visual mitigation employed were:



- Mitigation by Avoidance and Design;
- Buffering of Residential Receptors.

13.7.1 Embedded Mitigation/Mitigation by Design

Macro Works were engaged at an early stage of the proposed project to identify and understand the key landscape and visual constraints associated with a development of this scale within this particular landscape context. Of particular relevance were the scenic view designations within the surrounding landscape and the numerous Areas of Outstanding Natural Beauty and Areas of High Visual Amenity within the central and wider study area.

While it was considered that a wind energy development could be accommodated within this modified transitional upland setting, the initial-stage wireframe photomontages identified the potential for more pronounced visual effects to occur at certain scenic designations and sensitivity landscape within the study area. Most notably, there was potential for significant visual effects along a designated scenic view located to the south of Manorhamilton and within the surrounds of O'Donnells rock to the south of the proposed Project.

Within the previous Leitrim County Development Plan 2015–2021 (the relevant plan at the time of the initial assessments), this view was identified as 'V16 – View of Benbo, Thur and Dough Mountains from the R280', referred to as same in the current CDP. The mapping provided in the 2015–2021 Plan illustrated this view with an arrow oriented westwards towards the Benbo Mountains and northwards along the alignment of the R280 towards Dough Mountain and Manorhamilton.

At this early stage, a turbine layout comprising 20 no. turbines was assessed, which indicated the potential for highly cluttered views of turbines to be experienced from the surrounding landscape – most notably from scenic view V16 and from O'Donnell's Rock (scenic view V17) – refer to Figure 13-14 and Figure 13-15.

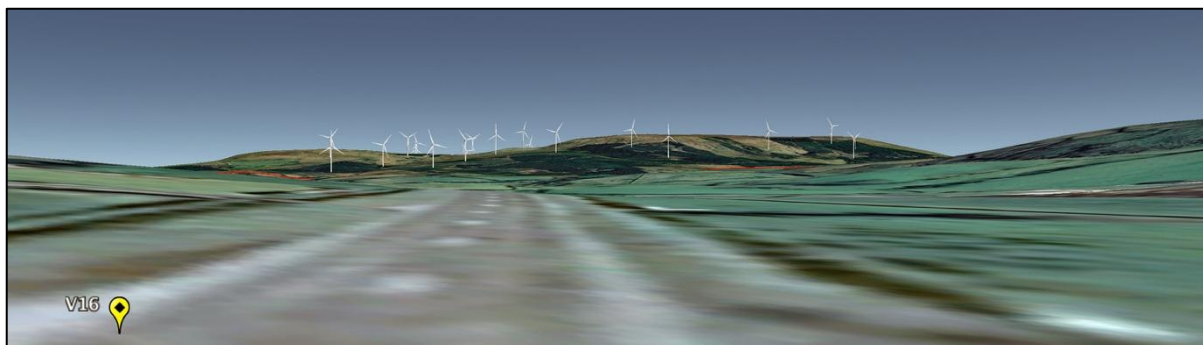


Figure 13-14: Wireframe view of the proposed project from V16 Scenic View showing the initial proposed 20 turbine array



Figure 13-15: Wireframe view of the proposed project from O'Donnell's Rock (scenic view V17) showing the initial proposed 20 turbine array

An initial assessment was undertaken on the initial layouts present to Macro Works at an early stage of the proposed project. The principal summary comments provided by Macro Works on the initial 20 turbine layout and initial wireframe photomontages are included below:

- From several key viewpoints (refer to representative viewpoints VP24, VP25 & VP26 in the visual impact appraisal below)—particularly within Manorhamilton, along its approach roads, and at designated scenic view V16, the proposed turbine array appears visually cluttered. This sense of visual clutter is also clearly apparent from O'Donnell's Rock, an Area of Outstanding Natural Beauty located some c. 4 km south of the site;
- In some views, the array appears sporadic, with large gaps between denser central clusters and the more widely spaced eastern turbines;
- The proposed project is situated partially in and adjacent to the 'B3 – Dough Mountain' High Visual Amenity Area, and thus, it is imperative that the turbine array achieves a high aesthetic quality to avoid detracting from the visual amenity of Dough Mountain and its surroundings.

As a result of these key findings from the initial wireframe photomontages, recommendations were provided to diminish both the visual presence and intensification of the development, whilst reducing the sense of clutter and potential for highly negative aesthetic effects to be afforded from surrounding scenic areas and designations. In combination with other environmental constraints, a final turbine layout comprising 14 no. turbines was proposed. This

revised layout demonstrated a substantially reduced visual presence of the development from surrounding receptors, while the degree of visual clutter and the potential for notable negative aesthetic effects were considerably diminished. Furthermore, the revised layout reduced potential impacts on sensitive landscape areas and scenic designations when compared with the initial 20-turbine array. A summary of the effects generated by the reduction in the scale of the proposed project are provided below:

- A notable reduction in the scale of the proposed project resulting in a more aesthetically balanced and visually coherent layout, particularly when viewed from Scenic View V16, from O'Donnell's Rock (Scenic View 17) and from the surrounding areas of Manorhamilton.
- The reduction in the overall scale of the development and removal of a number of proposed turbines heavily diminishes the cluttered appearance of the proposed turbine array from key sensitive viewpoints and from visually sensitivity landscape areas.
- The revised turbine array allows the turbines to present more clearly in silhouette against the sky with more even spacing characteristics.
- The revised array results in a reduced degree of visual exposure of the proposed project in the northern parts of the study area.

The project has embedded landscape and visual mitigation measures and thus, the assessment of potential landscape and visual effects is equivalent to any assessment of residual effects in this instance.

Principal mitigation measures that will be implemented to make the proposed project less intrusive and less prominent at a localised level consist of: -

- The colour will be industry standard off-white/light grey semi-matt non-reflective finish;
- Electricity lines between individual turbines and the substation, and the grid connection infrastructure, will be placed underground;
- Special care will be taken to preserve any features, in so far as possible, which contribute to the landscape character of the study area - such as the retention of existing hedgerows and vegetation, insofar as possible, to maintain existing levels of screening within the immediate study area. While some vegetation clearance is required to facilitate certain aspects of the proposed project, this has been limited insofar as possible and generally occurs within the internal parts of the site, where it will have a limited impact on the receiving landscape character; and
- Counter rotation of blade sets will be avoided.

13.7.2 Setback from Residential Receptors

For the proposed project, the minimum distance of any turbine from the nearest residential receptor is 763 m, which exceeds the Draft Revised WEDG (2019) minimum set back of 500 m and the setback distance of 4 times the maximum tip height (185 m) of the proposed turbines. In this instance and based on the Draft Revised WEDG (2019), the setback distance for visual amenity purposes is 740 m from residential receptors on the basis of the 185 m high turbines (this represents the greatest potential setback distance with regard to all potential turbine ranges).



Variation in residential buffer distances within the nearest kilometre has a much more noticeable effect on perceived turbine scale than when it occurs in the context of more distant views. This is due to the law of perspective, that doubling the distance to an object halves its perceived height. The reduction factor is even more pronounced when considered in the context of the 'swept area' of turbine blades and not just their tip height. This exponential 'scale in relation to distance' scenario is illustrated in Figure 13-16 below.

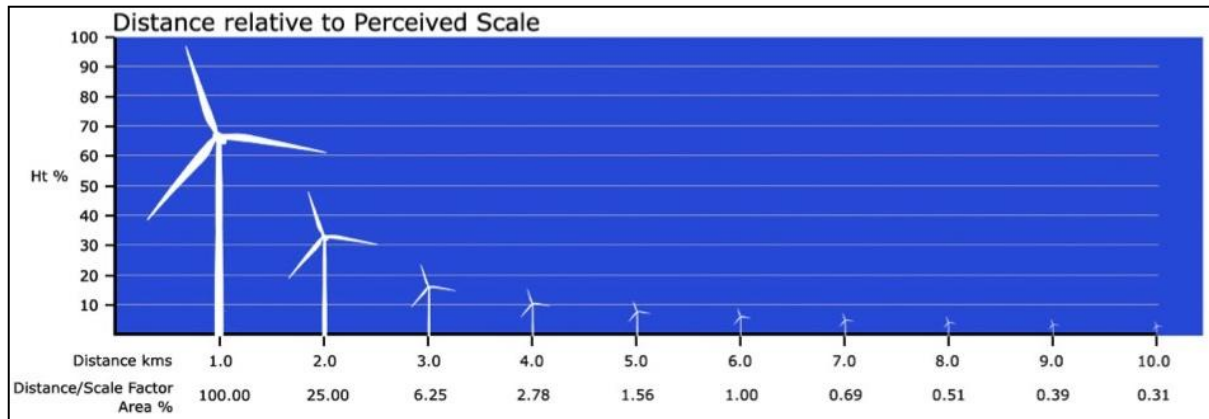


Figure 13-16: Turbine 'scale in relation to distance' relationship



13.8 POTENTIAL LANDSCAPE EFFECTS

13.8.1 Landscape Character, Value and Sensitivity

Effects on landscape character will be considered at both the site and central study area as well as the broader scale of the wider study area.

Site and Central Study Area (<c. 5 km from the nearest turbine)

The central study area is characterised by elevated upland terrain that evokes a distinct sense of remoteness, while the surrounding valleys display a more settled, working rural character. The uplands within the central study area, which include Saddle Hill and Dough Mountain, exhibit a long-standing pattern of human intervention, being largely occupied by extensive areas of commercial conifer forestry, existing wind energy development, and transitional pastoral farmland. Although some of the most elevated sections of Dough Mountain and Saddle Hill retain a naturalistic moorland and grassland character, the predominant land uses are forestry and traditional forms of agriculture.

The elevated lands within the study area descend towards broader low-lying rural areas, where pastoral farming is the dominant land use. Here, the settlement pattern is more pronounced than in the uplands, comprising isolated rural dwellings, farmsteads, and linear clusters of houses that align with the surrounding local and regional road network. The settlement of Manorhamilton forms the principal population centre within the central study area and is framed by uplands and distinctive valleys on all sides. Access to the town is provided through a series of gateway valleys, characterised by surrounding ridgelines and elevated mountains, which collectively contribute to a notable sense of scenic amenity.

Although pleasant views are afforded throughout the study area, the degree of designated scenic amenity is limited. The only designated scenic view within the central study area relates to a view towards Benbo Mountain, located in the south-western portion of the central study area, which is oriented away from Saddle Hill and Dough Mountain.

In terms of landscape designations, the proposed project and much of the central study area lie within LCA 4 – Arroo Mountain and Outliers. This Landscape Character Area (LCA) extends through the central study area and further north-westwards into more elevated and distinctive terrain within the wider study area. While this LCA is recognised as a sensitive landscape, the current Leitrim County Development Plan (CDP) notes that *“the areas of moorland plateaus are particularly sensitive to change owing to the distinctive character of the mountain skylines, scenic quality, wilderness-like quality and visual openness.”* It is important to note, however, that the most susceptible parts of this LCA are located within its north-western extents, which are designated as an Area of Outstanding Natural Beauty (AONB). In contrast, the elevated lands within the central study area fall within an Area of High Visual Amenity (AHVA), which is considered less sensitive than the adjacent AONB, although still recognised as a landscape of notable scenic and visual value.

With regard to landscape values associated with recreation and heritage, the central study area is not strongly defined by these attributes, although some features of local importance are present, including Manorhamilton Castle and sections of on-road cycling routes such as the North West Cycle Trail and the Kingfisher Cycle Route. Much of the area’s most notable recreational and heritage amenity is concentrated outside the central study area, within the wider uplands and Lakelands.



Overall, the landscape of the site and central study area presents as modified, with some localised areas, principally the most elevated sections, exhibiting a tranquil and naturalistic character. The broader landscape is predominantly productive and demonstrates a high degree of modification, influenced by anthropogenic land uses including commercial forestry, pastoral agriculture, and existing wind energy infrastructure.

On balance, and for the reasons outlined above and within Table 13-1, the landscape sensitivity of the site and central study area is assessed as **Medium**. While the central study area exhibits certain susceptible landscape qualities, it is also framed by working land uses and influenced by a range of built and modified features and land uses, which serve to reduce its overall sensitivity to change.

Wider Study Area (c.5-20km)

The wider study area presents a more varied character, comprising a diverse mix of landscape types and typologies. Indeed, it encompasses both highly sensitive and distinctive landscapes, as well as more typical and modified areas that are not considered rare or iconic in any sense.

Of particular note within the wider study area are the Dartry Mountains, located in its western extent. This is a highly distinctive landscape area in the northwest of Ireland, characterised by rugged and naturalistic uplands that convey a strong sense of remoteness and is occupied by limited forms of development. Some of the most notable landscape features here include the landforms of Ben Bulbin, Truskmore, and Slievemore, all of which contribute to dramatic and distinctive skylines that form a striking backdrop to many surrounding areas. Consequently, numerous designated scenic views and routes are contained within this part of the study area, many associated with lakes or glacially formed valleys that lie between these elevated areas.

This part of the study area also holds notable tourism and recreational value due to its scenic and distinctive nature. The Dartry Mountains are a popular destination for outdoor recreation, offering numerous hiking and walking trails, including the Sligo Way National Waymarked Trail. Between these distinctive mountains and ridges lie several notable lakes within the western extent of the study area, such as Lough Gill and Lough Glencar, both of which are characterised by a strong sense of tranquillity, particularly in areas with lower population densities. The highly sensitive nature of the Dartry Mountains and their surrounding landscapes is further reinforced by the Area of Outstanding Natural Beauty (AONB) designation that covers much of this area.

While other parts of the wider study area are not considered as distinctive or as susceptible to change as the Dartry Mountains, there are localised areas that nonetheless display a degree of distinctiveness and high visual amenity. The northern, eastern, and southern parts of the wider study area comprise elevated upland terrain interspersed with broad lakes and waterbodies, which provide a high level of visual amenity. This is reinforced by the presence of numerous waymarked trails, cycling routes, and scenic designations extending across Donegal, Cavan, and Sligo, and into Fermanagh in Northern Ireland.

However, many of these areas also exhibit long-standing signs of human intervention. The broad plateau of hills and ridges in Fermanagh, for instance, is extensively cloaked in coniferous forestry, reflecting a working upland landscape. Similarly, while the most elevated parts of Lackagh Mountain and its surrounding uplands retain a sense of naturalness and remoteness, the adjacent lands are heavily afforested, and the southern slopes of Lackagh Mountain host a notable cluster of existing wind turbines. In similar circumstances, an extensive linear array of

existing turbines is located along a broad ridge on the Sligo–Leitrim border, in the vicinity of Carrane Hill.

On balance, the wider study area is more diverse than the central study area, incorporating a broader range of landforms and landscape types. It contains areas of high sensitivity that would be particularly susceptible to change—most notably within the Dartry Mountains, while other parts exhibit a similar degree of robustness to the central study area. As a result, the overall sensitivity of the receiving landscape within the wider study area is assessed as **Medium to High**, with the western extent demonstrating **High** and, in some cases, **Very High** sensitivity.

13.8.2 Magnitude of Landscape Effects

The physical landscape as well as the character of the site, its immediate and central study area (<5 km) is affected by the proposed wind turbines as well as ancillary development such as access roads, areas of hard standing for the turbines and the substation compound. By contrast, for the wider landscape of the study area, landscape impacts relate exclusively to the influence of the proposed wind turbines only on landscape character. A full detailed description of each of these physical components that form part of the proposed project that are likely have an impact on the physical landscape and landscape character are described in Chapter 2 (Description of the Proposed Project) with construction processes described in the Construction and Environmental Management Plan (CEMP) in Appendix 2-4.

13.8.2.1 Construction Stage Effects on the Physical Landscape

It is considered that the proposed project will have a modest physical impact on the landscape within the proposed wind farm site as none of the proposed project features have a large ‘footprint’ and land disturbance/vegetation clearing will be relatively limited. The topography and land cover of the proposed wind farm site will remain largely unaltered with construction being limited to tracks, areas of hard standing for the turbines, the on-site substation compound, a permanent meteorological mast, two temporary site construction compounds, and borrow pits. 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 re-graded to marry into existing site levels and reseeded appropriately in conjunction with advice from the project ecologist.

The finalised internal road layout has been designed to avoid environmental constraints, and every effort has been made to minimise the length of necessary roadway by utilising and upgrading existing forestry tracks. Furthermore, the road layout has been designed to follow the natural contours of the land wherever possible reducing potential for areas of excessive ‘cut and fill’. The proposed project encompasses approximately 7.95 km of new site access tracks and the upgrade of approximately 8.35 km of existing access tracks, whilst a new site entrance is proposed in the townland of Cherrybrook, however this access will only be used during the construction stage of the proposed project. There will be an intensity of construction stage activity associated with the access, access tracks and turbine hardstands consisting of the movement of heavy machinery and materials, but this will be temporary/short term in duration and transient in location. There will also be construction stage landscape effects along the surrounding road networks, which relate to the temporary modifications to surrounding local and national roads and localised removal of roadside vegetation to facilitate turbine deliveries. The construction stage effects on landscape character from these familiar and dispersed surface activities will be limited.



There will be one 110 kV on-site substation compound constructed to collect the generated power from the proposed project. The 110 kV on-site substation will be located in an area of existing forestry in the south-western extent of the site, close to turbine T11. The dimensions of the proposed substation compound will be 144m in length by 79m in width include one control building and electrical components necessary to export generated power from the wind turbines to the transmission system. A second smaller building will be required for switching procedure with site offices and welfare facilities. The main control building will measure 18 m by 25 m and 8.85 m in height. A second smaller switchgear building will measure 20.1 m by 10.7 m, and 6.92 m in height. The proposed substation compound will be surrounded by steel palisade fencing which will be 2.6m in height. The most notable construction stage landscape impacts resulting from the proposed on-site substation relate to the felling of some conifer forestry and construction of concrete foundations to facilitate that substation building. Overall, these construction stage effects are relatively minor and compare to the construction of an industrial farm shed.

All internal site cabling will be underground and within the proposed internal roads and/or their verges. Indeed, the land cover of the site will only be interrupted as necessary to build the structures of the proposed wind farm and to provide access.

Impacts from land disturbance and vegetation loss at the proposed wind farm site are considered to be modest in the context of this broad landscape setting which is cloaked in extensive areas of conifer forest. As part of the proposed project, there will be a requirement to fell some of this forestry in the areas immediately around the footprint of the wind farm infrastructure. The total area of forestry to be felled is estimated to be approximately 79.2 ha. However, it should be noted that it is proposed to include ecological mitigation replanting and enhancement measures as part of the proposed development which are outlined in Chapter 6 Biodiversity. As a commercial crop, this conifer forestry is scheduled to be felled and replanted in the future regardless of the proposed project being constructed or not. Whilst the removal of small areas of forestry will generate some landscape effects, these are deemed not significant. All forestry that is removed will be subject to forest replanting provisions to be obtained post-consent. It should be noted that the replanting for commercial forestry felling will be > 10 km from wind farm area (see Appendix 2-8 - Approach to Afforestation) and therefore will have no impact on the assessment herein.

A new permanent meteorological mast is also proposed as part of this application and will be located to the east of the proposed substation location, rising to a height of 100m, with a lightning finial extending above the mast. The most notable landscape effects associated with the construction of a met mast relate to the localised clearance of top soil and excavation works to facilitate the met mast foundations.

Site activity will be at its greatest during the construction phase due to the operation of machinery on site and movement of heavy vehicles to and from the proposed wind farm site. This phase will have a more significant impact on the character of the proposed wind farm site than the operational phase, but it is a 'short-term' impact that will cease as soon as the proposed project is constructed and becomes operational (24 months from starting onsite to completion of commissioning of the turbines).

There will be some long term/permanent construction stage effects on the physical landscape in the form of turbine foundations and hardstands, access tracks and borrow pits, whilst the on-site substation will remain in perpetuity as part of the national grid network. With the exception



of some residually useful access tracks, the proposed substation and proposed underground cabling, it is proposed that all other development features will be reinstated to forestry and agriculture use upon decommissioning. Thus, the construction stage landscape effects of the proposed project are largely reversible.

Overall, the magnitude of construction stage landscape effects within the site and its immediately study area are deemed to be High-medium and of a Negative quality, but of a Short-term duration. The magnitude of construction stage landscape impact, will reduce within the central study area to Medium and Medium-low. Beyond 5km from the proposed wind farm site within the wider study area, the magnitude of landscape impact is deemed to reduce to Low and Negligible at increasing distances as the construction activities relating to the proposed project becomes a proportionately smaller component of the overall landscape fabric. It is important to note that this impact assessment applies across all turbine ranges highlighted in Section 13.10 as the nature and scale of construction stage activities would be generally consistent across all proposed turbine ranges.

13.8.2.2 Operational Stage Effects on Landscape Character

For most commercial wind energy developments, the greatest potential for landscape and visual impacts arises from the change in character of the immediate area due to the introduction of tall, moving structures that can redefine the perceptual qualities of the landscape. Wind turbines, which may not previously have been a characteristic feature, can therefore become a new and prominent element influencing local landscape character and experience.

In this instance, wind turbines are already an established and familiar feature within the immediate receiving environment, with the existing Faughary Wind Farm, located immediately adjacent to the proposed project, having been operational for over a decade. Consequently, the introduction of additional turbines within this context will occur within an already modified upland working landscape, where renewable energy infrastructure and extensive areas of commercial conifer forestry collectively define the prevailing land use and visual character. While the existing wind farm development represents a modest-scale wind energy project, it continues an established pattern of development along the upland ridge of Saddle Hill. In combination with the forestry plantations extending across Saddle Hill and Dough Mountain, this area exhibits a distinctly managed and functional upland character.

While the proposed project will result in a further intensification of wind energy development within the central study area, it does so within a landscape that has demonstrated capacity to accommodate such infrastructure – reflected in the available areas designation in the current CDP. Wind energy generation is now a well-established land use in County Leitrim, with a considerable number of operational wind farm developments present within the southern extent of the wider study area. The proposed turbines are therefore consistent in both scale and function with existing development patterns, and the broad-scale landform of the central study area provides a setting that can well accommodate and visually absorb the proposed turbine structures rising to a height of 180-185m.

Furthermore, the presence of existing wind energy infrastructure and extensive commercial conifer plantations across the elevated landscape ensures that the proposed development will not appear incongruous in terms of either visual character or land use function. Although some elements of the wider study area display higher sensitivity due to their naturalistic character, scenic value, and recreational amenity, the central study area has a more robust and modified character. The existing pattern of forestry, infrastructure, and renewable energy development



reinforces this robustness, reducing the susceptibility of the landscape to change. While the proposed project will introduce a more pronounced human presence and increased development intensity on the site itself, it will not materially diminish the modified upland working landscape character that currently defines the area.

It is also important to note that the proposed project represents a long-term but reversible built feature within the landscape. The operational lifespan of the wind farm is anticipated to be approximately 35 years, after which the turbines and associated infrastructure will be decommissioned and removed, and the site reinstated to prevailing land use conditions. Within a period of two to three years following decommissioning, the visible evidence of the wind farm is expected to be minimal, with the exception of the on-site substation, underground grid connection, and any retained access tracks that continue to serve practical or management functions as part of the enduring upland working landscape.

In summary, while the proposed project will result in direct physical impacts on the land cover of the site during the operational phase, these impacts will be relatively limited in the context of the existing modified upland working landscape. This landscape is already characterised by extensive areas of commercial conifer forestry and established wind energy development, which collectively define its utilitarian and managed character. The proposed project will introduce an additional layer of infrastructure within this context, thereby increasing the overall intensity of land use. However, given the prevailing pattern of large-scale managed forestry and existing renewable energy infrastructure, the proposed wind farm will be well assimilated within the receiving environment and will not give rise to significant conflicts of scale, form, or land use compatibility.

For these reasons the magnitude of the landscape effect is deemed to be High-Medium within the proposed wind farm site and immediate Study Area, reducing to Medium in the surrounding Central Study Area. Beyond 5km from the proposed wind farm site, the magnitude of landscape effect is deemed to reduce to Low and Negligible at increasing distances as the wind farm becomes a proportionately smaller component of the overall landscape fabric. It is important to note that this impact assessment applies across all turbine ranges highlighted in section 13.10 below.

13.8.2.3 Decommissioning and Restoration Stage Effects on Landscape Character

The decommissioning phase will have similar temporary impacts as the construction phase with the movement of large turbine components away from the proposed wind farm site. There may be a minor loss of roadside and trackside vegetation that has grown during the operation phase of the project, but this can be reinstated upon completion of decommissioning.

Works in this phase will primarily involve disassembling the turbines and removing off-site. The proposed site roads, turbine foundations or the grid connection infrastructure will not be removed. The site roads will remain for forestry/agricultural access while the hardstand material and turbine foundations will be left to revegetate naturally. The substation and grid connection infrastructure will form part of the permanent national grid network.

Overall, the magnitude of decommissioning stage landscape effects within the site and its immediately surrounding context is deemed to be High-medium and of a Negative quality, but of a Short-term duration. Beyond 5 km from the proposed wind farm site, the magnitude of landscape impact is deemed to reduce to Low and Negligible at increasing distances as the decommissioning related activities become a proportionately smaller component of the overall



landscape fabric. It is important to note that this impact assessment applies across all turbine ranges highlighted in Section 13.10.

13.8.2.4 Significance of Potential Landscape Effects (Construction, Operation and Decommissioning Phases)

The significance of landscape effects is a function of landscape sensitivity weighed against the magnitude of landscape impact. This is derived from the significance matrix (see Table 13-3) used in combination with professional judgement.

Based on a Medium-Low sensitivity judgement and a High-medium magnitude of construction and decommissioning stage landscape effect, the significance of effect is considered to be **Substantial-moderate / Negative / Short-term** within and immediately around the proposed wind farm site during construction and decommissioning, but reducing quickly with distance and broader context. Thus, the construction and decommissioning stage landscape effect is deemed **Not Significant**.

Based on a Medium sensitivity judgement and a High-medium magnitude of operational stage landscape effect at the proposed wind farm site and its immediate context (<1km from the turbines), the significance of effect is considered to be **Substantial-moderate / Negative / Long-term** within and immediately around the proposed wind farm site, reducing to **Moderate / Negative / Long-term** within the central study area (c. 1-5km from the proposed turbines). Thereafter within the wider study area (c. 5-20km from the proposed turbines), significance will reduce to **Slight** and **Imperceptible** at increasing distances as the proposed project becomes a progressively smaller component of the wider landscape fabric even in the context of higher sensitivity landscape units / features. It is important to note that the residual significance of landscape effect apply across all turbine ranges highlighted in section **13.10**. This is principally a consequence of the limited variation in the proposed turbine range, which is likely to be indiscernible from surrounding receptors.

Thus, whilst there will be some mid to high ranging landscape effects generated by the proposed project within the site and immediate surrounding landscape, the construction, operational and decommissioning phase effects are deemed **Not Significant** as the proposed project is located in a robust and modified setting that is already influenced by existing wind farm development so it will not appear as an incongruous or inappropriate form of development.



13.9 POTENTIAL VISUAL EFFECTS

13.9.1 Sensitivity of Visual Receptors

The study area encompasses a diverse mix of landscape types and visual receptors, ranging from robust and modified environments to areas of higher scenic value and pronounced naturalistic character. Within this varied landscape context, the most sensitive receptors are associated with designated scenic landscapes and areas recognised for their exceptional visual amenity. A notable concentration of such designations occurs throughout the study area, reflecting the presence of distinctive landforms, waterbodies, and recreational landscapes that contribute to the surrounding landscape character.

The most visually susceptible parts of the study area are associated with Areas of Outstanding Natural Beauty (AONB) designations, particularly those encompassing the Dartry Mountains and their distinctive upland landforms and features. Prominent natural landmarks, such as Ben Bulbin, exhibit a high degree of visual prominence and are highly sensitive to change. Visual receptors within the vicinity of these landmark features are classified as being of High to Very High sensitivity due to their distinctive nature.

The study area also includes numerous loughs and rivers, many of which occupy distinctive glacial valleys within the Dartry Mountains. These waterbodies often evoke a strong sense of tranquillity and remoteness and support a range of water-based recreational activities. The areas surrounding such features are typically associated with a heightened sense of visual amenity, reinforced by the presence of scenic viewpoints and linear recreational routes such as walking, cycling, and driving trails. Visual receptor sensitivity in these areas ranges from High to Medium, with the higher levels of sensitivity associated with more remote and undeveloped settings that display strong naturalistic character and limited human influence.

Beyond the immediate influence of the watercourses and waterbodies, a number of scenic designations also extend across the wider upland and locally elevated landscapes within the study area. These areas have often been designated due to their open and expansive views across surrounding lowlands. While such vistas may include evidence of long-established human activity, including traditional pastoral land use and scattered rural settlement, they nonetheless provide an enhanced degree of visual amenity. As such, receptors in these areas are classified as being of High-Medium to Medium sensitivity.

A wide range of heritage and recreational receptors are distributed across the 20 km study area, the majority of which are located within the wider surrounding landscape. Recreational receptors are particularly concentrated within the upland and scenic areas of the Dartry Mountains, the elevated lands to the south and east, and along major river corridors and lakeshores. Notable national and regional waymarked routes traversing the study area include the Leitrim Way, Sligo Way, Cavan Way, and the Miner's Way & Historical Trail, in addition to the Wild Atlantic Way, the EuroVelo Network, and the Northwest Cycle Route. The sensitivity of visual receptors along these routes varies considerably, from Very High in locations where views are afforded towards distinctive and valued landscape features, to Medium or Medium-Low in areas of more typical rural character.

Similarly, numerous heritage assets (refer to section 13.3.3.5) are distributed throughout the study area, often located in areas of elevated scenic value or in the surrounds of landscapes that present with an inherent sense of visual amenity. These features contribute to the cultural and perceptual richness of the landscape. Overall, heritage receptors range between High and



Medium sensitivity, with those of higher sensitivity generally associated with locations of greater scenic amenity or landmark value.

Views of the inland working agricultural landscape are generally pleasant in terms of its rolling pastoral aesthetic and 'green', settled working character. The network of hedgerows and vegetation that occur throughout it contributes to some sense of naturalness and, in combination with its undulating topography, generates a high degree of containment in many locations. However, whilst a pleasant pastoral aesthetic is noted throughout some parts of the study area, the wider landscape is also influenced by an array of anthropogenic features such as existing wind farm development, urban settlements, commercial and industrial development and major route receptors. Overall, the sensitivity of visual receptors within the more inland working landscape context tends to range between Medium and Medium-low, with those of a Medium sensitivity representing more open expansive views across the wider landscape. It is also worth noting that some local amenity and heritage features also occur throughout the study area, which heightens the degree of receptor sensitivity at a local level.

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 are considered generally more susceptible to changes in views over those where views are experienced transiently by those travelling through the landscape, particularly on major transport routes where road infrastructure and traffic volume draw from visual amenity. Likewise, receptors located in closer proximity to the proposed Project are considered more susceptible to changes in views over those where views are experienced at a distance.

On the basis of the site-specific factors outlined above and in accordance with the general visual receptor sensitivity considerations contained in the methodology **Section 13.3**, visual receptor sensitivity judgements are provided for each representative viewpoint in the Table 13-8 below and within the visual impact appraisal in Appendix 13.1.

13.9.2 Magnitude and Significance of Visual Effects

13.9.2.1 Construction Stage Visual Effects

During construction, the main visual impacts will arise from frequent heavy vehicle movements and worker vehicles travelling to and from the proposed wind farm site and using the site entrances. There will be construction machinery on site, which may rise above intervening vegetation and buildings. Some of the most notable construction stage visual impacts will result from the erection of the proposed turbines using tower cranes. There will also be stockpiles of stripped topsoil as well as construction materials awaiting use. However, a large part of this short-term activity within the proposed wind farm site will remain screened from view by the hedgerows and mature conifer plantations that surround the site and its immediate landscape context. Furthermore, construction-related activity is short-term in nature and will cease once the proposed project becomes fully operational.

For these reasons, the magnitude of visual impact at the construction stage is deemed to be no greater than High/High-medium at the nearest surrounding receptors, however, this reduces swiftly at greater distances from the proposed wind farm site, especially within the wider study area, where the magnitude of visual impact is considered to be no greater than Low/Low-negligible. Combined with a Medium/Medium-low sensitivity for receptors (refer to Table 13-8 below for sensitivity of receptors at representative viewpoints) within the immediate study area



(<1 km from the proposed wind farm site), the significance of visual effect will be not greater than **Substantial-moderate/Moderate** and of a **Negative** quality. Thereafter, the significance of effect will reduce to **Moderate/Moderate-Slight** throughout the Central Study Area and **Slight** and **Imperceptible** at increasing distances within the wider study area as the proposed project becomes a progressively smaller component in the afforded view. It is important to note that the residual significance of construction stage visual effect apply across all turbine ranges highlighted in section 13.10, as the proposed range has a limited variation that would have an indiscernible visual impact at surrounding receptors.

Thus, visual effects at the construction stage are deemed **Not Significant**.

13.9.2.2 Operational Stage Visual Effects

Table 13-8 below summarises the full textual assessment of visual effects for each Viewshed Reference Point (VRP) contained in Appendix 13.1 and Volume IV (Photomontage Booklet). Whilst the 'receptor sensitivity analysis table' and full textual assessment for each VRP is normally contained within the landscape and visual chapter, in this instance, given the considerable number of VRPs, it is considered more prudent to place this material in a separate appendix and focus herein on the significance of the findings. The left hand side of the table incorporates data associated with the viewing distance to the nearest turbine, whilst the right hand side contains professional judgements in respect of the view. It is important to note that the professional judgements are based on the effects experienced in relation to the view and are not directly influenced by the statistical data (i.e. the distance to the nearest turbine). These aspects are only combined within Table 13-8 in order to identify patterns of effect to better inform the conclusions of this assessment.

Table 13-8: Summary of Operational Stage Visual Effects at Viewshed Reference Points (VRP's)

VRP No.	Distance to nearest turbine km	Visual receptor Sensitivity (see Appendix 13-1)	Visual Impact Magnitude	Significance of Visual effect
VP1	18.7km T14	High-medium	Low-negligible	Slight-imperceptible / Negative / Long term
VP2	14.9km T2	Medium	Low-negligible	Slight-imperceptible / Negative / Long term
VP3*	12.4km T2	Medium	Low	Slight / Negative / Long term
VP4*	7.3km T2	High-medium	Low	Slight / Negative / Long term
VP5	5.3km T14	High-medium	Medium-low	Moderate-slight / Negative / Long term
VP6	3.9km T2	Medium-low	Medium-low	Moderate-slight / Negative / Long term
VP7	4.8km T3	Medium	Low	Slight / Negative / Long term
VP8	1.7km T14	Medium	Medium	Moderate / Negative / Long term
VP9	2km T2	Medium	Medium	Moderate / Negative / Long term
VP10	2.3km T3	Medium	Low	Slight / Negative / Long term
VP11	8.3km T9	High-medium	Low	Slight / Negative / Long term

VP12	0.94km T9	Medium	Medium	Moderate / Negative / Long term
VP13*	9.1km T12	High-medium	Low-negligible	Slight / Negative / Long term
VP14	1.3km T11	Medium	High-medium	Moderate / Negative / Long term
VP15	1.5km T10	Medium	High-medium	Moderate / Negative / Long term
VP16	5.1km T10	High-medium	Medium-low	Moderate-slight / Negative / Long term
VP17	7.6km T10	Medium-low	Low	Slight / Negative / Long term
VP18	3.3km T10	Medium	Medium-low	Moderate-slight / Negative / Long term
VP19	2.7km T10	Medium	Medium	Moderate / Negative / Long term
VP20	2.4km T10	Medium	Medium	Moderate / Negative / Long term
VP21	1.3km T12	Medium	High-medium	Substantial-moderate / Negative / Long term
VP22*	14.8km T12	High-medium	Low-negligible	Slight-imperceptible / Negative / Long term
VP23	2.5km T12	Medium-low	Medium-low	Moderate-slight / Negative / Long term
VP24	5km T10	High-medium	Medium-low	Moderate / Negative / Long term
VP25	4.8km T10	High-medium	Medium-low	Moderate / Negative / Long term
VP26	6.4km T10	High	Medium-low	Moderate / Negative / Long term
VP27	15.3km T12	High-medium	Low-negligible	Slight-imperceptible / Negative / Long term
VP28	14.6km T10	Medium	Negligible	Imperceptible / Neutral / Long term
VP29	16.8km T10	Medium	Low-negligible	Slight-imperceptible / Negative / Long term

* Denotes viewpoints located within Northern Ireland

Note: It is important to note that the residual significance of visual effects apply across all turbine ranges highlighted in Section 13.10 due to the limited variation in the proposed turbine specifications, which would be barely discernible at surrounding visual receptors.



13.9.2.2.1 Effects at Local Community Receptors

Local community views are considered to be those experienced by people who live, work, or travel within approximately 5 km of the proposed wind farm site. These receptors are generally the most likely to experience changes to their visual amenity as a result of the proposed project, owing to their proximity to the turbines, the increased likelihood of viewing turbines from multiple directions, and the potential for turbines to become a familiar element within their daily visual environment.

A total of 16 viewpoints were selected to represent local community receptors within the central study area: VP6, VP7, VP8, VP9, VP10, VP12, VP14, VP15, VP16, VP18, VP19, VP20, VP21, VP23, VP24, and VP25. These receptors are distributed in all directions around the proposed development, with several located in close proximity to the turbine locations. The sensitivity of local community receptors was classified as ranging from High–Medium to Medium–Low, with higher sensitivities generally coinciding with areas designated for their scenic value. The majority of local community receptors were assessed as having Medium sensitivity, reflecting the overall character of visual amenity within the study area, which is influenced by the surrounding uplands and glaciated valleys. Refer to Section 13.9.1 for assessment of visual receptor sensitivity.

The significance of visual effect experienced by local community receptors varies considerably, reflecting the broad configuration of the proposed turbine array, which extends across an elevated plateau. This plateau benefits from a notable degree of screening provided by local landform and existing vegetation, particularly extensive areas of commercial conifer forestry. The range of significance across local community receptors was assessed between **Substantial–Moderate** and **Slight**, with the majority falling within the mid-range of residual significance of effects – refer to Appendix 13-1.

Only one representative viewpoint, VP21, was assessed as having a **Substantial–moderate** significance of visual effect. It should be noted that, for a project of this scale and type, it is not commonplace for only one representative viewpoint to be classified as experiencing this level of effect. This outcome is largely attributable to the design-led layout of the proposed array, which incorporates substantial setbacks from the nearest residential receptors. Many of the proposed turbines significantly exceed the minimum visual amenity separation distances outlined in the Draft Revised WEDG (2019). At VP21, the residual significance of visual effect was classified as **Substantial–moderate**, resulting from a combination of Medium receptor sensitivity and High–medium magnitude of visual change. Although the full extent of the turbine array would not be readily visible from this location, the nearest two turbines (T13 and T14) would appear in a slightly elevated position from the local road, and their scale would be marginally accentuated by the uphill viewing angle. While a small number of nearby dwellings may experience more direct views of these turbines, most are well offset from the road corridor where the representative view was taken.

Overall, the principal aspect of visual amenity for receptors along these sloping lands relates to the locally elevated southerly views across the surrounding upland landscape in the southern extent of the study area, in the opposite direction to the proposed turbines.

Nine of the selected viewpoints (VP8, VP9, VP12, VP14, VP15, VP19, VP20, VP24, and VP25) representing local community receptors within the study area were assessed as having a residual significance of visual effect of **Moderate**. It should be noted that several of these viewpoints were also selected to represent other receptor categories, including scenic



designations, amenity areas, and heritage features, and are therefore discussed further within their respective receptor summary sections.

Viewpoints VP8 and VP9 are both located to the north of the proposed project and will afford partial views of the northern extent of the turbine array. Viewpoint VP8 is situated on elevated ground to the west of the valley containing the R282. From this location, Turbine T3, positioned on the higher ground at Saddle Hill, would appear as the most visually prominent feature, fully revealed in silhouette against the sky. The remaining visible turbines would appear partially revealed along the skyline ridge, extending both north and south of T3.

At Viewpoint VP9, a marginally clearer but still partial view of the proposed turbine array is available. Here, only the northernmost turbines within the array would be visible, appearing set well back from the local foreground and rising from the distant skyline ridge. The nearest visible turbines are located approximately 2 km from this viewing location. Although the turbines would introduce visually prominent, moving built elements within both viewpoints, they would not appear over-scaled or incongruous within the context of this transitional upland working landscape. As such, both viewpoints are assessed as experiencing a residual visual effect of Moderate significance.

Viewpoint VP12 represents the nearest local receptors to the west of the proposed turbine array, located on sloping elevated terrain along the eastern side of the Oweny River valley. The view extends eastwards uphill across nearby sloping lands, where the existing Faughary Wind Farm turbines are visible in combination with the proposed project along the adjacent ridgeline. Although the proposed turbines are considerably larger than the existing ones, they will not extend the vertical extent of wind energy development within this aspect of the view. Only a partial view of the proposed turbines will be afforded, with several turbine blade sets visible intermittently above the vegetated ridgeline. The most prominently visible turbine is T11, positioned to the southeast. While the nacelle is visible, only a short section of the upper tower can be seen, resulting in a visually truncated appearance. These partial and fragmented views have the potential to create a degree of visual ambiguity regarding the precise location and extent of the turbines. Overall, the residual significance of visual effect at VP12 is assessed as Moderate.

Viewpoints VP14 and VP15 are both representative of the nearest local community receptors to the south of the site, representing local residential receptors situated along the south-facing sloping lands of Dough Mountain. The proposed turbines are well set back from these receptors, with many located well beyond 1 km from the nearest dwellings. These sizeable setbacks markedly reduce the visual presence of the turbines in views from this local context, as demonstrated at both viewpoints. In addition, the southern slopes of Dough Mountain are extensively forested with commercial conifer plantations, which further screen the proposed development and diminish its perceived scale and intensity. This screening effect is most apparent at VP14, where the intervening conifer forest provides a visual buffer separating the turbines from the local landscape context. The turbines are seen rising beyond the forested middle ground, resulting in a filtered and softened view. At VP15, where vegetation cover is less extensive, the rolling landform provides effective screening, with only the upper portions of turbine towers and blade tips visible beyond the undulating foreground of rough grassland and scrub. From both viewpoints, the turbines will introduce a notable built element into the landscape, emerging as one of the more prominent man-made features. However, given their scale, form, and functional character, they would not appear out of place within this robust upland plateau. Furthermore, the principal aspect of visual amenity in this area is oriented



southwards, overlooking the wider upland landscape rather than towards the proposed turbine array.

The remaining four representative viewpoints (VP19, VP20, VP24, and VP25) classified with a **Moderate** residual visual effect also correspond to receptors associated with amenity and heritage features or scenic designations, and are therefore discussed further in the subsequent sections of this chapter.

The residual visual effect at all other viewpoints representing local community receptors was classified as **Moderate-Slight** or **Slight**, reflecting their greater distance from the proposed turbines and the higher degree of screening afforded by local landform and vegetation. While clear views of the proposed project may be available from certain parts of the central study area, the turbines generally appear as orderly and comprehensible features within the wider landscape context.

In terms of scale and proportion, the proposed turbines can be readily accommodated within the broad upland landscape, which is characterised by extensive, large-scale landforms and a diversity of land uses and textures.

In summary, although some localised higher-magnitude visual effects are anticipated at a limited number of local community receptors, these effects are generally restricted in extent due to the considerable setbacks incorporated into the proposed turbine layout. The proposed array is designed to be fully compliant with the visual amenity offset requirements outlined in the Draft Revised WEDG (2019).

Accordingly, visual effects at local community receptors during the operational phase of the proposed project are assessed as **Not Significant**.

13.9.2.2.2 Effects at Designated Views

Whilst the study area, most notably its northern extents, includes a considerable number of scenic designations, many of these have been screened out as they are located either outside of the ZTV pattern and will afford no visibility of the proposed project, or they are oriented in the opposite direction to the proposed development, and thus are not relevant to the assessment (refer to Section 13.3.3.2). Nonetheless, there are still numerous scenic views within the study area that have the potential to afford visibility of the proposed turbines. 10 representative views (VP1, VP4, VP5, VP11, VP16, VP22, VP24, VP25, VP26 and VP27) have been selected to represent scenic views within the study area.

As noted in the mitigation section of this report (refer to Section 13.7) scenic designations V16 and V17 were key considerations in the design of the proposed project from an early stage. Viewpoint VP24 was selected to represent scenic designation V16, which is located along one of the arterial valleys extending from the settlement of Manorhamilton, situated between O'Donnell's Rock and Benbo. The current County Development Plan (CDP) describes this view as being of particular scenic quality due to *"the distinctive mountain moorland profile that confers a strong sense of place. Further north, distant views of Dough Mountain and Saddle Hill are attained as relatively small elements in the view framed by roadside vegetation."*

Indeed, the main aspect of the view, as evidenced by the orientation of the arrows in the maps provided in the CDP and in Figure 13-11, is directed westwards from the road corridor towards Benbo. In contrast, the proposed project would be visible along the alignment of the regional road corridor to the north. The turbines would be clearly discernible in this direction, with the

nearest visible turbine located at a distance of just under 5 km. From this location, the main turbine array would appear slightly condensed, with some overlap between individual turbines. However, the array would remain legible and coherent, displaying minimal scale conflict with the existing Faughary turbines, which are also visible in the scene. Two easternmost turbines would appear as outliers, offset from the main cluster to the east. While there would be some minor detracting from the scenic amenity at this viewpoint, the turbines would be perceived as distant features and would not interfere with the primary visual focus, which is oriented westwards towards Benbo Mountain. Taking account of the High-Medium sensitivity of the visual receptor and the Medium magnitude of change, the resulting significance of visual effect at VP24 is assessed as **Moderate**.

Both Viewpoints VP25 and VP26 were selected as representative views for scenic view V17, which is located along the most elevated parts of O'Donnell's rock and also overlay with sections of the Leitrim Way. As with scenic view V16, the principal orientation of this designation relates to views directed westwards towards Benbo. The CDP describes this view as *"The distinctive profile of the mountain is clearly visible along with the glen landscape further north. Lough Gill is partly visible in the distance and under favourable weather conditions, mountains in Sligo are visible."* Notably, the description makes no reference to Saddle Hill or Dough Mountain, and the mapping provided in both the CDP and in Figure 13-11 above confirms that the primary visual orientation is towards the west. Nevertheless, the proposed turbines will be clearly visible from this elevated position, as demonstrated by both representative viewpoints VP25 and VP26. From these locations, all fourteen turbines of the proposed project will be visible to varying degrees, with the majority fully revealed. The turbines will form a noticeable built component of views to the north, presenting as some of the largest moving elements within the landscape and likely to draw the eye of the casual observer. While there would be some minor negative aesthetic effects associated with limited instances of turbine stacking, the proposed array will generally appear in a legible manner, with the two easternmost turbines reading as slight outliers. The existing Faughary turbines will likely be perceived as part of the same development, and although the proposed turbines are of a larger scale, the perceived difference in size is relatively limited, resulting in little sense of visual or scale conflict. Overall, both VP25 and VP26 are assessed as experiencing a residual visual effect of **Moderate**.

Viewpoint VP5 was included as a representative view for scenic view V5, which is located approximately 5 km to the northwest of the proposed project. The principal aspect of amenity at this location, and the reason for its scenic designation, relates to views to the north across Lough Melvin. The proposed turbines are situated well offset from these northward views, with only the southern extent of the proposed project visible, as the intervening sloping terrain screens the remainder of the turbine array. While a pleasant view is afforded to the east, this is largely enclosed by extensive areas of forestry. The proposed turbines appear as modest but noticeable features in this context, with some instances of turbine stacking that introduce a slight sense of visual clutter. Nevertheless, the turbines would not detract from the principal aspect of visual amenity, and therefore the significance of visual effect is assessed as **Moderate-Slight**.

Scenic designation V10 is one of the nearest scenic views to the proposed project, located just over 5 km to the southwest and represented by the corresponding viewpoint. As with the other scenic designations discussed above, the principal aspect of this view is oriented to the south, in the opposite direction to the proposed turbines. Nevertheless, a clear view of the proposed project is afforded from this locally elevated position, with all fourteen turbines visible to



varying degrees to the northeast. The turbines extend across Saddle Hill and Dough Mountain, appearing as prominently scaled built elements along the transitional sloping lands and across the more elevated sections of the distant upland terrain. While the proposed project does not appear incongruous in this context in terms of either its scale or functional character, the two easternmost turbines read as slight outliers, introducing a minor degree of visual tension with the main array. Overall, it is not considered that the proposed turbines would significantly detract from the visual amenity at this location, although they would result in a noticeable degree of visual change. On balance, the residual significance of visual effect is assessed as **Moderate-Slight**.

All other scenic designations represented by the remaining viewpoints were assessed with a residual significance of visual effect ranging between **Slight** and **Slight-Imperceptible**. This is primarily attributed to their distance from the proposed project, which varies between approximately 7 km and 15 km from the nearest turbine. As outlined in the designated view summaries above, the majority of scenic designations within the study area are oriented in the opposite direction to the proposed project, further reducing the extent of potential visual influence.

Overall, whilst there is a notable degree of designated scenic amenity within the study area, the predominance of scenic designations is not deemed relevant to the proposed project, as they are either outside the ZTV pattern or oriented in the opposite direction to the proposed project. Furthermore, those that have been classified as relevant to the proposed project tend to have their main aspect of visual amenity oriented away from it. Whilst some representative views have been classified as having a mid-range residual significance of visual effect, it is important to note that these effects are deemed **Not Significant**.

13.9.2.2.3 Effects at Tourism Amenity and Heritage Receptors

Due to the varied landscape types and land forms within the study area, which often comprises elevated uplands and areas that present with a high degree of visual amenity, there are numerous tourism, amenity and heritage receptors. As a result, ten of the representative views for assessment (VP1, VP2, VP3, VP4, VP13, VP18, VP22, VP25, VP26 and VP27) were selected to represent tourism, amenity and heritage receptors within the study area. It should be noted that many of the representative viewpoints for tourism, amenity and heritage receptors also overlay with scenic designations and other receptor types which have been summarised in the above sections.

Viewpoint VP18 was selected to represent Manorhamilton Castle and is the nearest notable heritage receptor to the proposed project contained within the central parts of the settlement of Manorhamilton some c. 3km to the south of the nearest proposed turbine. Whilst the proposed turbines have the potential to be viewed from here, they are partially and intermittently screened by the surrounding layers of built development within the settlement. Indeed, the visual context of the castles is one that is heavily influenced by surrounding anthropogenic built forms. Thus, whilst the proposed turbines will be visible in the background and have the potential to draw the eye, they do not detract from the visual setting of this heritage asset. Overall, the significance of visual effect at viewpoint VP18 was classified as **Moderate-slight**.

With regard to water-based recreational amenity, several of the lakes within the study area are represented by viewpoints, including VP4 and VP13. Viewpoint VP4 is located along the eastern shores of Lough Melvin, in the northern half of the study area. Whilst the proposed turbines are



not readily visible from this viewing context due to screening by surrounding vegetation, they have the potential to be visible from areas further around the eastern extent of the lough. Nevertheless, even where visible, the proposed turbines would be perceived as distant features in the background and would have a limited effect on the visual amenity afforded from the surrounding lake. Thus, the residual significance of visual effect is classified as **Slight**. Viewpoint VP13 was selected as a representative view from Lough Macnean, in the eastern extent of the study area. As per the ZTV, only the eastern extent of the lakeshore has the potential to afford visibility of the proposed turbines. Where visible, the turbines will appear as distant background features, well offset from the visual context of the lake, and will generate little notable adverse visual effects from this distance. Thus, the significance of visual effect is classified as **Slight**.

It is also important to note the many waymarked walking trails, cycling routes, and driving routes within the study area. With regard to the Wild Atlantic Way, which is located in the north-western periphery of the study area, the proposed turbines will be barely discernible from this route. Indeed, even if viewed from brief sections that pass along coastal roads, such as the R231 (represented by VP1), the proposed turbines would appear as distant background features. They are visible in the opposite direction to the main aspect of visual amenity from this route, which tends to relate to views across the coastal environment to the west. Viewpoint VP1 is classified with a **Slight-imperceptible** residual significance of visual effect.

In terms of walking and hiking routes, the study area, particularly its wider extents, is synonymous with outdoor recreation due to its varied landforms and rugged, remote character. The nearest section of any walking or hiking route relates to the Leitrim Way, which crosses O'Donnell's Rock to the south of the proposed project. Viewpoints VP25 and VP26 were selected as representative views from this elevated part of the study area, which is also noted for its scenic amenity due to the presence of a designated scenic view (V17). As noted in the sections above, the proposed turbines would be clearly visible from this elevated context and would appear as a notable built feature when viewed from here. However, the turbines are well offset from the principal aspects of visual amenity along this elevated plateau and do not appear out of place in terms of their scale or function. Indeed, they would likely be perceived as a large-scale extension to the existing modest-scale Faughary wind farm development, which is an established feature along Saddle Hill. Both viewpoints VP25 and VP26 are classified with a residual **Moderate** significance of visual effect.

Numerous other cycling trails and walking routes occur throughout the study area, from which views of the proposed turbines have the potential to be afforded. However, it should be noted that views of turbines from elevated sections of walking and hiking routes are not uncommon throughout Ireland and within the elevated lands of the study area and wider parts of Leitrim. Indeed, views of the considerable number of existing turbines in the wider southern extent of the study area, in addition to the existing Faughary turbines, are visible from many of these routes.

Overall, the proposed turbines, where visible, would represent an intensification of wind energy development in this landscape. It is not considered that the proposed turbines would be viewed as incongruous features, nor would they detract significantly from the sense of remoteness or the scenic amenity afforded from these routes, particularly as many are located at a considerable distance from the proposed project.

Overall, it is assessed that visual effects with respect of tourism, amenity and heritage receptors within the study area are **Not Significant**.



13.9.2.2.4 Effects at Centres of Population

Centres of population within the study area are represented by ten viewpoints, including Viewpoints VP1, VP2, VP4, VP7, VP18, VP19, VP22, VP23, VP28, and VP29. The principal and nearest centre of population with respect to the proposed project is the medium-sized town of Manorhamilton, located in the south-western extent of the central study area. The nearest local receptors within the settlement of Manorhamilton are situated just over c. 2.5 km to the south of the nearest proposed turbines. Viewpoints VP18 and VP19 were selected as representative views from the settlement, with VP18 representing the central parts of the town, whilst VP19 is representative of the peripheral residential housing estates within the wider surrounding area.

Viewpoint VP18, as noted above, is also representative of the heritage receptor of Manorhamilton Castle. Whilst views of the turbines are likely to be afforded from the central parts of the settlement, they tend to be experienced in a brief and intermittent manner, as the surrounding built environment and layers of existing vegetation partially screen and soften the appearance of the turbine structures. Indeed, in the context of the surrounding built forms, the proposed turbines would not appear as incongruous features. However, in some instances, where the turbines are partially and intermittently screened, there is potential for a degree of visual clutter and ambiguity to arise, with turbine blade sets visible rotating above rooflines and along the vegetated skyline. Furthermore, a degree of visual ambiguity may be associated with the actual location of the proposed turbines, where the turbine towers are substantially screened. Nonetheless, the residual significance of visual effect in the central parts of the settlement is classified as **Moderate-slight**.

Viewpoint VP19 is located within a residential estate in the northern extent of the settlement and represents some of the nearest potential views of the proposed turbines from within the town. The scale and presence of the turbines are more notable here than at VP18, as there is much less potential for screening by surrounding built development. Nevertheless, whilst they are prominent built features, the turbines appear in a legible manner and are contextually separated from the wider surrounding parts of the settlement, being located uphill along the transitional slopes of Saddle Hill and Dough Mountain. Whilst the moving turbine components would likely draw the eye and result in some detracting from the degree of visual amenity afforded across the surrounding sloping lands, they do not appear over-scaled, nor do they appear inappropriate within this landscape context, which is already influenced by the existing Faughary turbines. Overall, the significance of visual effect is deemed to be no greater than **Moderate**.

The small settlement of Glenfarne (represented by VP23), located to the south-east of the proposed project, and the small village of Kiltyclogher (represented by VP7) are the only other settlements within the central study area. The village of Glenfarne is the nearer of the two and is represented by the nearby viewpoint VP23. Whilst the proposed turbines will be visible from this location, with the two easternmost turbines presenting in a more prominent manner, the full scale and extent of the proposed project would be substantially diminished due to screening by intervening terrain and vegetation. Although the turbines will likely draw the eye here, they are contextually well separated from this small settlement, viewed in the context of sloping lands cloaked in extensive conifer forestry plantation on the southern extent of Dough Mountain. Thus, the residual significance of effect is classified as **Moderate-slight**. At the settlement of Kiltyclogher (VP7), the visual presence of the proposed project is much reduced



in comparison with Glenfarne. Indeed, the upland terrain largely screens the majority of the turbine array, with only seven of the proposed turbines visible to varying degrees along the distant skyline ridge. Overall, whilst the turbines will marginally increase the intensity of built development in views from here, they will have a limited effect on the visual amenity afforded from this location. Thus, the residual significance of effect is classified as **Slight**.

All other centres of population within the study area are located within its wider extents and would afford limited visibility of the proposed turbines. Indeed, where visible, the proposed turbines would appear as distant background features and would have a limited influence on the visual character of these settlements. Thus, all other settlements within the wider study area that have the potential to afford views of the turbines are classified as having a residual significance of effect ranging between **Slight** and **Imperceptible**.

As a result of the reasons outlined above, the residual significance of visual effect at centres of population within the study area is assessed as **Not Significant**.

13.9.2.2.5 Effects at Major Routes

Major route receptors within the study area are represented by six viewpoints, including Viewpoints VP1, VP7, VP13, VP17, VP20, and VP23. The principal major route receptor with respect to the proposed project is the N16 National Primary Route, which traverses the study area in an east-west orientation and is located approximately 2 km south of the proposed turbine array at its nearest point. Viewpoints VP17, VP20, and VP23 were selected as representative views from this major route receptor.

As illustrated in both VP20 and VP23, the proposed turbines would be clearly and prominently visible from this route, with open views of the proposed project afforded to the north of this linear transport corridor. Viewpoint VP20 affords the clearest view of the turbines, where they would be seen rotating, primarily backed by the sky with a low degree of visual contrast, along the sloping lands surrounding Dough Mountain and Saddle Hill. A highly legible view of the turbines is afforded from VP20, where the two easternmost turbines present as outliers to the main array, resulting in a slight sense of visual tension with the principal cluster of turbines. Nonetheless, the proposed turbines can be well accommodated within this visual context and appear clearly separated from the more settled lowland parts of the surrounding landscape. Overall, the significance of visual effect along the N16 within the study area is classified as ranging between **Moderate** and **Slight**, with the most notable residual visual effects occurring along the nearest sections of this major route corridor to the south of the proposed project and east of the settlement of Manorhamilton.

All other major route receptors within the study area are classified with a residual significance of visual effect ranging from **Slight** to **Slight-imperceptible**, as many of these routes are located at a considerable distance from the proposed project, where the turbine array would be partially and intermittently visible, appearing as a distant background feature. Overall, the residual significance of visual effect at major route receptors within the study area is assessed as **Not Significant**.



13.9.2.2.6 Summary of Operational Stage Visual Effects

As outlined in the above sections and in Table 13-8, The residual significance of visual effects as a result of the proposed project ranges from **Substantial-moderate** to **Imperceptible**. A summary of residual visual effects at receptor types at assessed representative viewpoints is provided in Table 13-9.

Table 13-9: Summary of Operational Phase Visual Effects at Defined Receptor Types

Receptor Type	Residual Significance of Visual Effect Range (at assessed representative viewpoints – refer to Appendix 14.1)
Local Community Receptors	Substantial-moderate to Slight
Designated Views & Routes	Moderate to Slight-imperceptible
Tourism, Amenity & Heritage Receptors	Moderate to Slight-imperceptible
Centres of Population	Moderate to Imperceptible
Major Routes	Moderate to Imperceptible

Overall, the most notable visual effects tend to be contained within the immediate surroundings of the site, which is characterised by a limited rural settlement pattern and extensive areas of commercial forestry and pastoral lands. However, one key consideration here is the distance of the nearest local receptors from the proposed turbines. Whilst all local receptors comply with the visual amenity offsets in the Draft Revised WEDGs 2019 (a minimum of four times tip height), it should be noted that the large majority of the nearest local receptors are well set back beyond the minimum setback distances. This is reflected in the residual visual effects, with only one representative viewpoint classified with a significance of visual effect of **Substantial-moderate**, Viewpoint VP21. Even from local receptors in the vicinity of VP21, the full extent of the proposed project is not readily discernible; however, the two nearest turbines in the eastern extent of the array have the potential to present in a dominant, but not overbearing, manner. Whilst other surrounding local receptors will afford clearer views of a larger extent of the proposed array, these tend to be well set back from the proposed project, with no sense of overbearing generated by the perceived scale of proposed turbines. It should be noted that it is uncommon for a development of this scale and extent to generate such limited visual effects within the range of **Substantial-moderate**, which demonstrates a clear design response to the receiving landscape context, where careful consideration has been given to the nearest local community receptors.

With regard to visual effects at designated scenic views within the study area, there is potential for the proposed project to present in a clear and prominent manner, particularly at the nearest scenic designations to the south of the proposed project (refer to designated views V16 and V17). However, design mitigation measures, which include a considerable reduction in the number of proposed turbines from up to 20 turbines to the current layout comprising 14 no. turbines, were employed at an early stage to diminish the perceived scale, and intensity of development from the nearest surrounding scenic designations, which complies with Policy



SVP2. It is also assessed that the proposed project fully complies with Policies SVP1, SR1, and SR2, as the proposed turbines will not significantly detract from any scenic designations within the study area. In fact, a large majority of the scenic designations within the study area were not deemed relevant to the proposed project, as they are either outside the ZTV pattern or oriented in the opposite direction. Of the few scenic designations deemed relevant to the proposed project, the proposed turbines are principally viewed offset from the main aspect of visual amenity within these views. Whilst the turbines may draw the eye where visible, they are viewed in the context of a more robust and less susceptible aspect of visual amenity, where wind energy development already influences the existing baseline visual context.

Outside the central study area, the landforms and landscape types are more diverse, with some highly susceptible landscape areas and receptors. Nonetheless, large parts of the more visually susceptible landscapes are either outside the ZTV pattern or located at a considerable distance from the proposed turbines, which limits their potential to have any notable adverse effects. Where visible, the proposed turbines will appear as distant background features and will have little visual influence on the character of these susceptible receptors. Of particular note is that the proposed project would not be visible from prominent views of highly rare and distinctive landscape features such as Ben Bulbin and other rugged and distinctive landforms in the surrounding Dartry Mountains.

In summary, the proposed project represents a wind energy development of notable scale and extent. However, in terms of residual visual effects, for a project of this scale and type, it is not commonplace for only one representative viewpoint to be classified as experiencing a Substantial-moderate level of effect. This outcome is largely attributable to the design-led layout of the proposed array, which incorporates substantial setbacks from the nearest residential receptors. It also reflects the scale and extent of the surrounding landforms and land uses, which aid in visually assimilating the proposed turbines without any significant conflicts of scale. Whilst some very localised, higher-ranging residual visual effects would occur within the immediate and central study area, it is assessed that the proposed project would generate residual visual effects deemed **Not Significant** (i.e. no greater than **Substantial-moderate**) at the nearest surrounding visual receptors and at visual receptors throughout the study area.

13.9.2.3 Decommissioning Stage Visual Effects

Visual impacts at the decommissioning stage will be very similar to the construction stage and will arise from frequent heavy vehicle movements and worker vehicles travelling to and from the site and using the site entrance. As with the construction stage, there will be HGVs travelling to and from the proposed wind farm site, removing built features that formed part of the proposed project. Whilst the most notable visual impacts will still arise from the erection of large tower cranes to remove the turbine structures, there will be slightly less intensity in construction related activities as the substation will not be removed at the end of the useful life of the wind farm project as it will form part of the national electricity network. Therefore, the substation will be retained as a permanent structure and will not be decommissioned. There will also be no requirement for large excavation works as the turbine foundations and hardstands will be left to revegetate naturally and site roads will remain for forestry/agricultural access.

For these reasons, the magnitude of visual impact at the decommissioning stage is deemed to be no greater than High/High-medium at the nearest surrounding receptors, however, this reduces swiftly at greater distances from the proposed wind farm site, especially within the wider study area, where the magnitude of visual impact is considered to be no greater than Low/Low-



negligible. Combined with a Medium/Medium-low sensitivity for receptors within the immediate study area (<1-2km from the proposed wind farm site), the significance of visual effect will be not greater than **Substantial-moderate/Moderate** and of a **Negative** quality. Thereafter, the significance of effect will reduce to **Moderate/Moderate-Slight** throughout the central study area and **Slight** and **Imperceptible** at increasing distances within the wider study area as the proposed wind farm becomes a progressively smaller component in the afforded view.

Thus, residual visual effects at the decommissioning stage are deemed **Not Significant**.

13.10 TURBINE RANGE ASSESSMENT

As noted in the methodology section (refer to Section 13.2.6.3) Macro Works has taken the approach of using the highest possible tip height and highest hub height combination. This is on the basis that a viewer who can see a hub rising above a skyline ridge is likely to feel they are seeing more of the turbine than when the hub is screened from view (i.e. in the case of a lower hub / longer blade combination). That premise is based on the hub being perceived as the key and central component of a turbine in a figurative sense.

In this instance, the photomontages were prepared using a turbine envelope of 149m rotor diameter, 110.5m hub height and 185m tip height which represents the most potential for visibility of the hub and tip height combination.

An alternative range of turbine dimensions is also being proposed by the applicant, as detailed below.

- Total tip height range of 180m - 185m
- Rotor diameter range of 149m - 163m
- Hub height range of 101m – 110.5m

To provide assessment of the full range of potential turbine options, comparative photomontages have been generated from a selection of some of the nearest viewpoints to the proposed project (Representative Viewpoints VP9, VP12, VP14, VP15, VP20 and VP21) – refer to Volume 4 – Photomontages Booklet 2 – located at the back of the booklet. These viewpoints have been selected as they have the most potential to discern the difference in the potential turbine scenarios. A total of four potential turbine scenarios are included within the comparative photomontages to present the full array of potential turbine options. These are outlined below:

- Base Case Scenario: Rotor Diameter 149m – Hub Height 110.5m – Tip height 185m (maximum) – Base-case Scenario used and assessed in the LVIA
- Option 1 Scenario: Rotor Diameter 158m – Hub Height 101m – Tip height 180m
- Option 2 Scenario: Rotor Diameter 149m – Hub Height 105.5m – Tip height 180m
- Option 3 Scenario: Rotor Diameter 163m – Hub Height 103.5m – Tip height 185m

As can be seen from the comparative photomontages (included in **Volume 4- Photomontage Book 2**) Variations in the scale and specification of the proposed turbines will be barely discernible, even when viewed from the nearest surrounding visual receptors. The principal consideration in this regard relates to the maximum difference of 5 m between the tallest proposed turbine and the alternative options. While a height difference of 5 m at ground level



may represent a noticeable physical change, in the context of turbines with overall tip heights in the order of 180–185 m, such variation is not considered to be perceptible in terms of the apparent scale of the turbines when viewed within the immediate, central or wider study area.

With respect to rotor diameter, the proposed range represents a greater numerical variation than the tip height range, with diameters varying by ± 14 m. The largest proposed rotor diameter would occupy a marginally greater area of sky than the smaller alternatives; however, given the relatively slender form and open structure of turbine blades, any increase or decrease in rotor diameter would be perceived as subtle. On this basis, the residual visual effects associated with the proposed turbine options are not considered to be materially greater or lesser across the range of turbine specifications.

Similarly, the proposed turbine hub heights vary by ± 9.5 m. In more elevated or strongly undulating upland landscapes, such variations can occasionally be perceptible where certain hub height options may appear above a rolling ridgeline, while others may be partially screened by local topography or vegetation. In the context of the central study area, however, which is characterised by predominantly flat to gently undulating terrain, there is very limited potential for such effects to occur. Consequently, variations in hub height are not expected to result in discernible differences in landscape or visual effects.

Regardless of whether the difference between the alternative turbine dimensions can be discerned or not, there will be no material difference in the level of visual effect between them, and certainly not a higher impact than the base-case outlined in the visual impact appraisal highlighted above. Indeed, the proposed ranges will not result in any changes to the conclusion in terms of residual significance of landscape and visual effects as set out above. Thus, the submitted LVIA is deemed to completely assess the full range of potential turbine dimension options proposed and it is not considered necessary to prepare separate photomontages / assessments at all viewpoints for all possible turbine dimensions highlighted above.

In relation to the Base-case Scenario, Option 1, Option 2 and Option 3, the residual landscape and visual effects are assessed as **Not Significant**.

13.11 TRANSBOUNDARY EFFECTS

With regard to transboundary effects, these are most relevant along the eastern and northern extents of the study area, which include areas within Northern Ireland. In this context, relevant landscape policies and designations identified in the Northern Ireland Landscape Character Assessment (2000), Northern Ireland Regional Landscape Character Assessment (2015) and the Fermanagh and Omagh District Council LDP 2030 have been referenced in this chapter. Similarly, baseline studies have taken account of areas within the study area located in both the Republic of Ireland and Northern Ireland.

With regard to transboundary landscape effects, these are limited within Northern Ireland, as none of the proposed project infrastructure is located within the parts of the study area that lie within Northern Ireland. Thus, any potential landscape effects are limited to perceived effects on landscape character within Northern Ireland. It is also noted that the Northern Ireland boundary is located approximately 3 km northeast of the site at its nearest point. Therefore, the potential for the proposed project to notably alter landscape character within Northern Ireland is limited. On this basis, it is assessed that transboundary landscape effects within Northern Ireland as a result of the proposed project are **Not Significant**.

In terms of visual effects, a number of representative viewpoints were selected to represent visual receptors within Northern Ireland across the study area. These include local community views, major transport routes, centres of population, and amenity and heritage features. Four representative viewpoints are located within Northern Ireland, namely VP3, VP4, VP13 and VP22.

The residual visual effect at all four representative viewpoints was assessed as **Slight**. This reflects both the distance from the proposed turbines and the degree of intervening screening between these receptors and the proposed project. A greater concentration of turbines within the proposed project is located along the eastern and southern-facing slopes of Dough Mountain and Saddle Hill. As a result, visibility from these viewpoints, and from many surrounding visual receptors within Northern Ireland, is generally limited to a smaller number of turbines. As evidenced by the ZTV mapping presented above (refer to Figure 13-10), even in a bare-ground scenario there is exceptionally limited potential for views of all 14 proposed turbines. Overall, while views of the turbines will be available from parts of the study area within Northern Ireland, they will typically be perceived as modest-scale, distant features. Consequently, the resulting visual effects are of a low order of magnitude, and residual transboundary visual effects within Northern Ireland are therefore assessed as **Not Significant**.

13.12 CUMULATIVE EFFECTS

The NatureScot Guidance relating to 'Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments (2021)' identify that cumulative effects on visual amenity consist of combined visibility and sequential effects. The same categories have also been subsequently adopted in the Landscape Institute's (IEMA) 2013 revision of the Landscape and Visual Impact Assessment Guidelines. The principal focus of wind energy cumulative impact assessment guidance relates to other wind farms - as opposed to other forms of development. This will also be the main focus herein, albeit with a subsequent consideration of cumulative effects with other forms of notable development (existing, permitted or pending a decision from a planning authority), particularly within the central study area.

Cumulative visual effects typically arise in two main ways. Combined visibility occurs when the proposed development is visible alongside, or in the context of, other existing, consented or proposed wind energy developments, either simultaneously within a single view or in successive views across the landscape. Sequential effects arise where turbines are experienced along prominent linear receptors, such as roads, walking trails, or other movement corridors, where successive views of the turbines are encountered over a distance.

Cumulative effects of wind farms tend to be adverse as they relate to the addition of moving manmade structures into a landscape and viewing context that already contains such development, and thus, result in an intensification of development. Based on guidance contained within the NatureScot Guidelines relating to the Cumulative Effects of Wind Farms (2012) and the DoEHLG Wind Energy Guidelines (2006/2019 Draft), cumulative effects 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 in relation to 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 project 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 13-10 provides the criteria for assessing the magnitude of cumulative effects, which are based on the NatureScot Guidelines (2012).

Table 13-10: Magnitude of Cumulative Effect

Magnitude of Effect	Description
Very High	<p>The proposed wind farm will strongly contribute to wind energy development being the defining element of the surrounding landscape.</p> <p>It will strongly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.</p> <p>Strongly adverse visual effects will be generated by the proposed turbines in relation to other turbines.</p>
High	<p>The proposed wind farm will contribute significantly to wind energy development being a defining element of the surrounding landscape.</p> <p>It will significantly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.</p> <p>Significant adverse visual effects will be generated by the proposed turbines in relation to other turbines.</p>
Medium	<p>The proposed wind farm will contribute to wind energy development being a characteristic element of the surrounding landscape.</p> <p>It will contribute to a sense of wind farm accumulation and dissemination within the surrounding landscape.</p> <p>Adverse visual effects might be generated by the proposed turbines in relation to other turbines.</p>
Low	<p>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.</p> <p>It might contribute to wind farm development becoming a familiar feature within the surrounding landscape.</p> <p>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.</p>
Negligible	<p>The proposed wind farm will most often be viewed in isolation or occasionally in conjunction with other distant wind energy developments.</p> <p>Wind energy development will remain an uncommon landscape feature in the surrounding landscape.</p>

	No adverse visual effects will be generated by the proposed turbines in relation to other turbines.
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13.12.1 Assessment of Cumulative Effects

In addition to the proposed development, there are six operational wind farms and two consented wind farms and one wind farm in the planning system contained within the study area. These are set out below:

Table 13-11: Cumulative Wind Farms within the study area

Wind Farm Name	Number of turbines	Distance and Direction from proposed turbine array to nearest cumulative turbine	Status
Faughary Wind Farm	3	544 m	Operational
Carrickeeny Wind Farm	4	8.5 km west	Operational
Tullynamoyle Wind Farm Extension	8	9.1 km south	Consented
Tullynamoyle Wind Farm	15	9.4 km south	Operational
Callagheen Wind Farm	13	11.9 km northwest	Operational
Garvagh Glebe Wind Farm	8	18.5km southwest	Operational
Croagh Wind Farm	9	19.2 km southwest	In Planning
Black Banks Wind Farm I+II	17	19.6 km southwest	Operational
Acres Wind Farm	6	19.9 km northwest	Consented

The appraisal of cumulative effects with other wind energy developments is based on the cumulative ZTV maps and wireframes provided in Appendix 13.2 and the Photomontage booklets in Volume 4.

Although the photomontages and Cumulative ZTV map in Appendix 13.2 relates principally to cumulative visual effects (i.e. utilising the selected VP set), it also informs the closely related assessment of cumulative landscape effects, particularly those relating to cumulative effects on the overall landscape character of the study area. The assessment below, therefore, relates to both cumulative visual effects and cumulative landscape effects.

In terms of cumulative construction and decommissioning stage effects, it is unlikely that the construction or decommissioning of two wind farm developments within the study area will occur in tandem as the proposed projects timelines and operational lifespan does not align with any other projects within the study area. However, should the construction or decommissioning of the proposed project and another consented development occur at the same time, there is the potential for an increase in the intensity of construction/decommissioning activity within the study area. This includes the movement of HGVs along the surrounding road networks, storage of working vehicles and machinery, and the erection of tower cranes to construct/remove the turbine components. However, as the majority of consented and existing



developments are well offset from the proposed project, it is not considered that these will generate any notable cumulative effects in the immediate surroundings of the proposed project. Overall, it is considered that the cumulative construction or decommissioning effects with other wind farm developments within the study area will not generate significant cumulative effects.

In this instance, the study area comprises six operational wind farm developments and three consented wind farm developments, all of which are indicated on the cumulative ZTV map below (Figure 13-17 refers). These tend to be located within the wider study area, with the only wind farm development within the central study area being Faughary Wind Farm consisting of three turbines and located immediately adjacent to the proposed turbines. All other wind farm developments are contained within the wider study area, with the predominance of these developments located within the wider southern half of the study area.

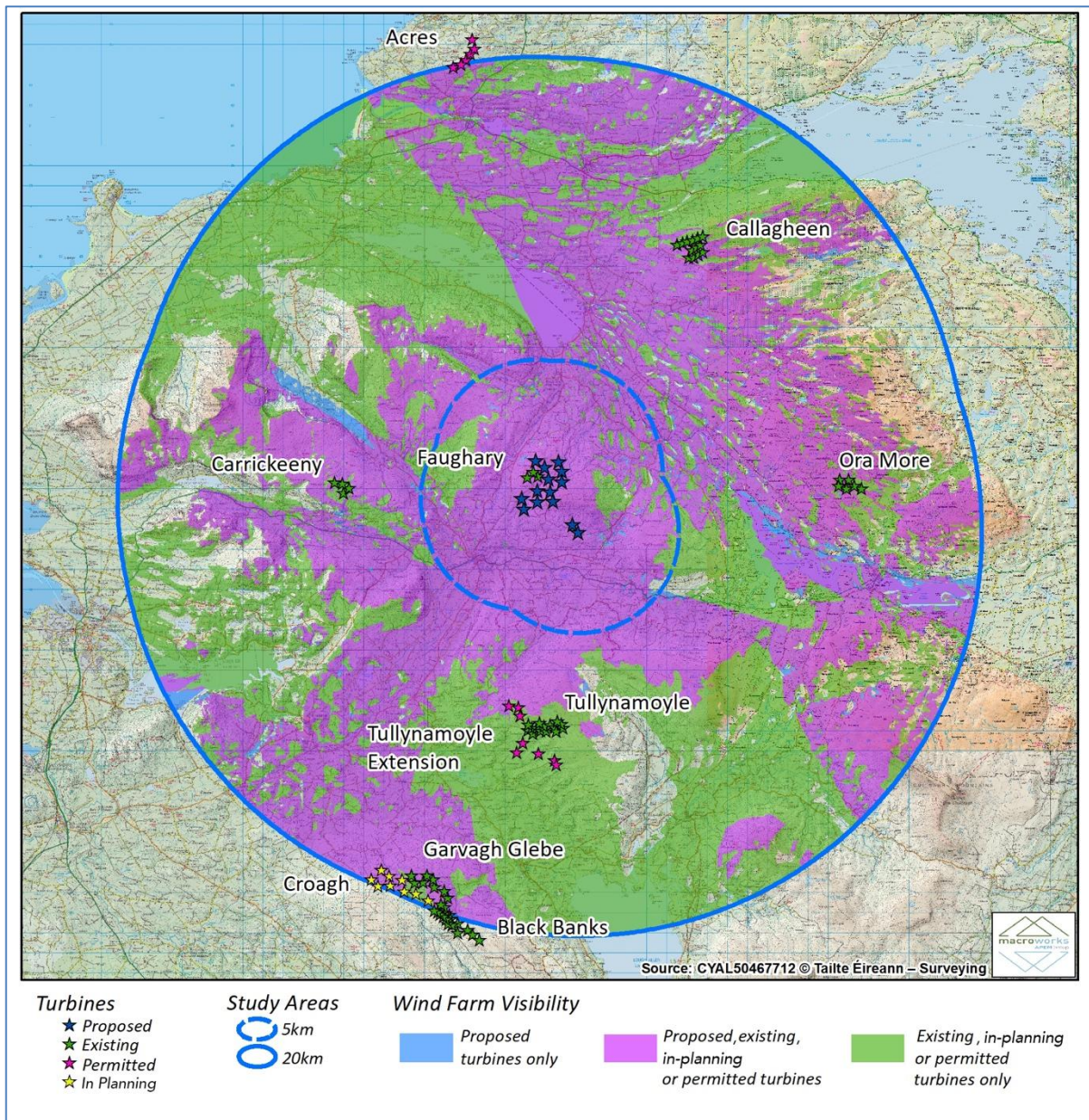


Figure 13-17: Cumulative ZTV Map (Tip Height 185m) *

*represents a worst case scenario in terms of potential turbine visibility with regard to the variation in turbine dimensions) for the Proposed Wind Farm identifying the potential intervisibility of the

proposed Wind Farm and all other existing and consented wind farms within the study area (See Appendix 13-2 for larger version)

The cumulative ZTV map illustrates the potential for cumulative visibility between the proposed turbines and all other existing and consented wind farm developments within the 20 km study area. At present, there are six operational wind farms and three consented wind farm development within this area. As illustrated by the ZTV map, which is based on a bare-ground scenario and is therefore likely to overestimate visibility once existing screening is taken into account, the potential for views of the proposed turbines in isolation (identified by the blue colour pattern) extends to approximately 36.9% of the study area. These areas are largely located beyond the central study area, with some localised pockets of isolated visibility within the eastern and north-western parts of the central study area. The most notable areas of potential isolated visibility occur within the wider eastern and western extents of the study area. In the east, a linear band of blue ZTV pattern extends along Lough Macnean and around the settlements of Belcoo and Blacklion. To the west, two distinct areas of isolated turbine visibility are evident along the Glenaniff River and around Glenade Lough

With regard to combined theoretical cumulative visibility with other existing and consented developments, approximately 44.2% of the study area has the potential to afford visibility of the proposed project in combination with one or more other wind farm developments. The principal combined view would occur with the existing Faughary turbines, which are located immediately adjacent to the proposed turbines. There are no other consented or operational developments within the central study area, with the nearest wind farm located approximately 8.5 km to the west of the proposed project. As a result, the primary cumulative visual effects arise from in-combination views of the proposed and existing Faughary turbines, as all other existing and consented turbines are sufficiently offset from the proposed project and/or are viewed in a different direction.

The existing Faughary Wind Farm comprises three turbines with a maximum blade tip height of 121 m and is therefore notably smaller in scale than the proposed Lissinagroagh turbines. This difference introduces the potential for scale contrast between the two developments. However, as demonstrated in representative viewpoints (notably VP12, VP16 and VP19), any perceived disparity is moderated by topography, with the existing turbines occupying locally elevated ground relative to several of the proposed turbines. The degree of visual integration is particularly evident in VP20, where the Faughary turbines appear broadly comparable in scale to more distant proposed turbines seen in the vicinity of Saddle Hill (refer to Figure 13-18). Whilst the proposed project will introduce a limited degree of scale contrast in immediate views, the dispersed layout and varied landform context prevent any pronounced visual discordance. The principal cumulative effect would instead arise from the intensification of wind energy development across this plateau of hills and ridges. Although Faughary Wind Farm is an established and assimilated feature of the baseline landscape, the proposed project would materially increase the scale and presence of turbines in this locality. This represents a clear but contained escalation of wind energy influence within the immediate landscape context.





Figure 13-18: Assimilation of existing Faughary turbines within the proposed turbine array

Cumulative landscape and visual effects generated by the proposed project are less notable within the wider study area due to the dispersed pattern of wind farm development and the separation distances between the proposed project and other wind farms. Whilst a notable agglomeration of existing and consented turbines occurs within the southern extent of the study area, these developments are well separated from the proposed turbines both contextually and geographically. Intervening terrain within the southern part of the study area also plays a notable role in diminishing the potential for distinct cumulative landscape and visual effects. Similarly, to the north and west, other existing and consented developments are well offset from the proposed project, being located on distinctly separate areas of elevated or rolling terrain. Whilst the combination of the proposed turbines with all other consented and existing turbines would result in a further increase in the scale and intensity of wind farm development within the study area, the proposal represents only a modest 16% increase in the total number of turbines.

In terms of sequential visual effects, these principally relate to the many linear walking and hiking trails within the study area, much of which pass along the more elevated and scenic parts of the surrounding upland terrain. Due to the elevated nature of many sections of these routes, they have the potential to afford views of numerous existing and consented turbines. The proposed turbines will also have the potential to be viewed from many of these routes; however, it is important to note that the principal amenity routes within the study area are located within its wider extents. Thus, whilst the turbines may be visible from these routes, they would present as distant background features with a limited visual presence, diminishing their potential to alter the local and surrounding landscape character. Nonetheless, where visible, the proposed turbines would further intensify the spatial dissemination of wind farm development within the wider surrounding landscape.

In conclusion, the proposed project will give rise to a Medium magnitude of cumulative landscape and visual effects, reflecting a clear but contained intensification of wind energy development within the study area. The most notable cumulative influence would occur locally through in-combination views with the adjacent Faughary Wind Farm, where the proposal would reinforce and expand the established wind energy character along the elevated lands in the surrounds of Saddle Hill and Dough Mountain. However, beyond this immediate context, separation distances, intervening landform and the dispersed pattern of existing and consented wind farms notably diminish broader cumulative interactions. As such, the proposed project represents an incremental addition to an already evolving wind energy landscape, resulting in cumulative effects that are perceptible but not extensive or overriding in the wider study area

context. Thus, cumulative effects generated by the proposed project are classified as **Not Significant**.

13.13 CONCLUSION

The proposed project has been carefully designed and sited with full consideration of surrounding receptors. The landscape context is characterised as a robust, elevated transitional upland landscape, comprising working and utilitarian land uses, including extensive areas of commercial conifer forestry, active agricultural farmland, and existing wind energy development. While the broader study area contains some highly sensitive landscape features, the site itself exhibits more resilient, working landscape characteristics, rather than susceptible landscape qualities associated with scenic amenity or a strong sense of naturalness. As a result, the proposed project is not considered to represent an inappropriate or incongruous form of development within this context. Furthermore, the proposed project is deemed to be in compliance with relevant landscape policies and objectives set out in the current Leitrim CDP, most notably LCA POL 2, LCA POL 3, LCA POL 4 and objectives LCA OBJ 1 and LCA OBJ 2.

In terms of visual effects, although the proposed turbines will be prominent features within the immediate and central study area, they are well set back from surrounding receptors and fully comply with the Draft Revised WEDG (2019) in relation to visual amenity offsets. In many cases, these offsets are substantially exceeded at the nearest receptors. This is further supported by the assessment of representative viewpoints, where only one viewpoint was assigned a residual visual effect of **Substantial-Moderate**, with all other viewpoints within the immediate, central, and wider study areas assessed as **Moderate** or lower. It should also be noted that the proposed turbine layout is particularly consistent and compliant with the guidance and design recommendations set out for the Transitional Marginal landscape type guidance outlined in the current WEDGs (2006).

It should also be noted that, while some areas of designated scenic or amenity value exist throughout the study area, the proposed project will generally be viewed in the opposite direction from these designations or will be partially or fully screened. Likewise, some of the most sensitive visual receptors and landscape areas are heavily screened and/or located at considerable distances from the site, further reducing the potential for any notable visual effect. In this regard, it is assessed that the proposed project is in compliance with the visual policies and objectives (policies LD POL 1 – LD POL 6 and objectives LD OBJ 1 and LD OBJ 4), set out in the current Leitrim CDP or CDPs within the surrounding study area and is predominately located within an 'Available Area' wind energy classification within the current Leitrim CDP.

Overall, the proposed project represents a considered and appropriate intensification of established wind energy infrastructure in this landscape context, and is not considered to give rise to significant adverse landscape or visual effects either individually or cumulatively.

With regard to residual construction and decommissioning stage landscape effects, the significance of effect is considered to be **Substantial-moderate / Negative / Short-term** within and immediately around the proposed wind farm site during construction and decommissioning, but reducing quickly with distance and broader context. Furthermore, the significance of landscape effect during the operational phase is deemed to be **Substantial-moderate / Negative / Long-term** within and immediately around the site, reducing to **Moderate / Negative / Long-term** within the central study area and reducing swiftly and further distances from the proposed project. Within the wider study area (c. 5-20km from the proposed turbines), the residual



significance of landscape effect will reduce to **Slight** and **Imperceptible**. Overall, residual landscape effects are assessed as **Not Significant**.

With regard to residual visual effects during the construction and decommissioning stage, these will range between **Substantial-moderate** and **Imperceptible** throughout the study area, with those closer to the development experiencing higher ranging effect. In terms of the residual visual effects during the operational phase, the proposed project will result in some localised high-ranging residual visual effects. Indeed the residual significance of visual effect ranges between **Substantial-moderate** to **Imperceptible**. Whilst the proposed project will present with a prominent visual presence from some of the nearest receptors, residual visual effects are assessed as **Not Significant**.

Transboundary effects have been assessed in relation to landscape and visual matters. Owing to the separation distance from the Northern Ireland border and the intervening landform, which heavily reduces both the perceived scale and spatial extent of the proposed project from receptors within Northern Ireland, the potential for transboundary landscape and visual effects is limited. Thus, transboundary effect are assessed as **Not Significant**.

In terms of cumulative landscape and visual effects, the principal interaction arises with the existing Faughary Wind Farm, which is located immediately adjacent to the proposed project. The proposed turbines will result in a clear intensification of wind energy presence across the elevated landform that encompasses the site and its immediate setting. However, cumulative effects with other wind farm developments within the wider study area are moderated by separation distances, intervening landform and their location within distinctly separate landscape contexts. Consequently, whilst the proposal would reinforce wind energy development locally, its contribution to cumulative landscape and visual effects at the wider study area scale is limited. Overall, the cumulative effects arising from the proposed project are assessed as **Not Significant**.

13.14 REFERENCES

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