



Balgray Wind Farm

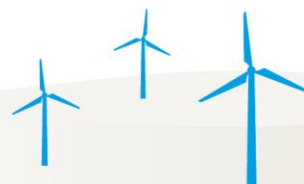
Chapter 6: Landscape and Visual Impact Assessment

June 2025



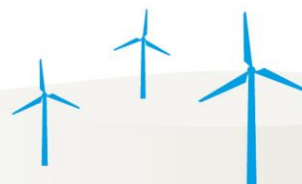
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List of Abbreviations

Abbreviation	Description
CAA	Civil Aviation Authority
CLVIA	Cumulative Landscape and Visual Assessment
CZTVs	Cumulative ZTVs
DGWLCS	Dumfries and Galloway Wind Farm Landscape Capacity Study
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ELC	European Landscape Convention
GDL	Garden and Designed Landscape
GLVIA3	The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition
ICAO	International Civil Aviation Organization
LCT	Landscape Character Type
LVIA	Landscape and Visual Impact Assessment
NPF4	National Planning Framework 4
NSA	National Scenic Area
OS	Ordnance Survey
RSA	Regional Scenic Areas
RVAA	Residential Visual Amenity Assessment
SLA	Special Landscape Area
SLLCSWE	South Lanarkshire Landscape Capacity Study for Wind Energy
SNH	Scottish Natural Heritage (Now NatureScot)
SUW	Southern Upland Way
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VP	View Point
WELCACIS	Scottish Borders Council Update of Wind Energy Landscape Capacity and Cumulative Impact Study
WLA	Wild Land Area
ZTV	Zone of Theoretical Visibility



6 Landscape and Visual

6.1 Introduction

6.1.1. This chapter of the Environmental Impact Assessment Report (EIAR) presents a Landscape and Visual Impact Assessment (LVIA) of the Proposed Development.

6.1.2. The LVIA has been prepared Pegasus Group who have extensive experience of undertaking LVIA for onshore wind energy schemes, in particular in Scotland. The Lead Authors were Dale Turner and David Gooch. Dale holds a MSc in Environmental Impact Assessment and has over 15 years' experience in undertaking and overseeing LVIA for wind energy developments, including several previous applications in Dumfries and Galloway. David is a Chartered Member of the Landscape Institute (CMLI) with over 15 years' experience undertaking LVIA for energy developments.

6.1.3. The purpose of an LVIA, when undertaken in the context of an Environmental Impact Assessment (EIA), is to identify any likely significant landscape and visual effects arising as a result of the Proposed Development. An LVIA must consider both:

- Effects on the landscape as a resource in its own right (the landscape effects); and
- Effects on specific views and visual amenity more generally (the visual effects).

6.1.4. Therefore, this LVIA considers the potential effects of the Proposed Development upon:

- Individual landscape features and elements;
- Landscape character;
- Specific views; and
- People who view the landscape.

6.1.5. In this chapter, landscape and visual effects are assessed separately; although, the procedure for assessing each of these is closely linked and follows 'The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition' (GLVIA3)¹.

6.1.6. The main objectives of the landscape assessment can be summarised as follows:

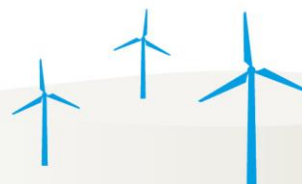
¹ Landscape Institute and the Institute for Environmental Management and Assessment (2013). The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3).



- To identify, evaluate and describe the baseline landscape character of the Site and its surroundings and also any notable individual landscape features within the Site;
- To determine the nature of the landscape receptor (i.e. the sensitivity of the landscape) through a consideration of its susceptibility to the type of development proposed and any values associated with it;
- To identify and describe any impacts of the Proposed Development in so far as they affect the landscape resource;
- To evaluate the nature of the landscape effects (i.e. the magnitude, duration, and reversibility of the effect);
- To identify and describe mitigation measures that have been adopted to avoid, reduce, and compensate for landscape effects;
- To evaluate the relative significance of residual landscape effects; and
- To determine which landscapes effects, if any, are significant.

6.1.7. The main objectives of the visual assessment are similar and can be summarised as follows:

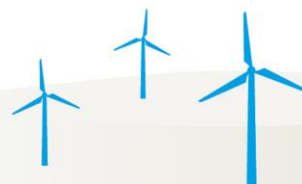
- To identify, evaluate and describe the baseline visual context of the Site and its surroundings with a focus on both specific views and the more general visual amenity experienced by people who have views of the Site;
- To determine the nature of the visual receptor (i.e. the sensitivity of the viewpoint or person whose visual amenity is affected) through a consideration of the susceptibility of the viewpoint/person to the type of development proposed and any values associated with either the viewpoint or visual amenity experienced;
- To identify and describe any impacts of the development in so far as they affect a viewpoint, or views experienced;
- To evaluate the nature of the visual effects (i.e. the magnitude, duration, and reversibility of the effect);
- To identify and describe mitigation measures that have been adopted to avoid, reduce, and compensate for visual effects;
- To evaluate the relative significance of residual visual effects; and
- To determine which visual effects, if any, are significant.



- 6.1.8. The LVIA also considers any cumulative landscape and visual effects which may arise as a result of the Proposed Development in conjunction with other wind farm developments.
- 6.1.9. The main LVIA presented in this chapter is supported by figures and visualisations in **EIAR Volumes 3a and 3b**, and technical appendices in **Volume 4**.
- 6.1.10. The location of the Proposed Development and the study area for the LVIA is illustrated on **Figure 6.1**. For reference, other operational, consented, proposed, and scoping wind farms within 35km which are referred to throughout this chapter are illustrated on **Figure 6.9**. **Figure 6.10** shows other wind farms within 20km of the Proposed Development.
- 6.1.11. This chapter is structured as follows:
- Proposed Development.
 - Legislation, Policy, and Guidance
 - Consultation.
 - Methodology.
 - Baseline.
 - Assessment of Potential Effects.
 - Mitigation.
 - Assessment of Residual Effects.
 - Assessment of Cumulative Effects.
 - Summary.

6.2 The Proposed Development

- 6.2.1. The Proposed Development is described in full in **Chapter 3: Description of Development** of the EIAR, but the elements that have the potential to create landscape and visual effects include:
- 6 wind turbines of up to 200m to tip height (hub height 119m, rotor diameter 162m is used for modelling);
 - External transformer housing;
 - Crane pads;
 - Access tracks;
 - Substation;
 - Battery Energy Storage System (BESS);
 - Borrow pit search areas;



- Drainage attenuation measures, as necessary;
- Temporary construction and storage compounds and ancillary infrastructure; and
- Aviation lighting.

6.2.2. The Proposed Development will have construction, operation, and decommissioning phases, with an operational lifetime of 35 years.

6.3 Legislation, Policy, and Guidance

European Landscape Convention, Adopted 2000

6.3.1. 'The European Landscape Convention' (ELC)², is the first international convention to focus specifically on the landscape as a resource in its own right. The convention promotes landscape protection, management, and planning, as well as European co-operation on landscape issues. Signed by the UK Government in February 2006, the ELC became binding from March 2007. It applies to all landscapes, towns, and villages, as well as open countryside; the coast and inland areas; and ordinary or even degraded landscapes, as well as those that are afforded protection.

6.3.2. The UK Government has stated that it considers the UK to be compliant with the ELC's requirements and in effect the principal requirements of the ELC are already enshrined in the existing suite of national policies and guidance on the assessment of landscape and visual effects.

6.3.3. The ELC defines landscape as:

"An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."

6.3.4. It is important to recognise that the ELC does not require the preservation of all landscapes; although, landscape protection is one of the core themes of the convention. Equally important though is the requirement to manage and plan future landscape change.

6.3.5. The ELC highlights the importance of developing landscape policies dedicated to the protection, management, and planning of landscapes. In this regard, NatureScot and Dumfries & Galloway Council have a suite of landscape character assessments and landscape capacity studies (plus the emerging Draft Wind Energy Landscape Sensitivity Study) which enables decisions to be made with due regard to landscape character, as promoted by the ELC.

² Council of Europe. Council of Europe Landscape Convention (ETS No.176) (2000). Available at: <https://www.coe.int/en/web/conventions/full-list?module=treaty-detail&treaty-num=176>



Planning Policy

6.3.6. The following currently adopted planning policy documents were reviewed as part of the desk study for the LVIA:

- National Planning Framework 4 (NPF4)³.
- Dumfries and Galloway Local Development Plan 2⁴.

6.3.7. The following supplementary guidance and technical reports which provide the evidence base for current planning policy were also reviewed:

- Dumfries and Galloway Landscape Assessment⁵.
- Dumfries and Galloway Council - Wind Energy Development: Development Management Considerations⁶.
- Dumfries and Galloway Council - Wind Energy Development: Development Management Considerations - Appendix 'C' Wind Farm Landscape Capacity Study⁷.
- Dumfries and Galloway Regional Scenic Areas Technical Paper⁸.
- Dumfries and Galloway Dark Skies Friendly Lighting Supplementary Guidance⁹.
- NatureScot Merrick Wild Land Area description¹⁰.

6.3.8. It is acknowledged that there is a new Draft Wind Energy Landscape Sensitivity Study Supplementary Guidance document (dated October 2024) which was recently out for consultation, which closed in December 2024. This document is not currently adopted but has nonetheless been considered in the preparation of

³ Scottish Government. National Planning Framework 4 (2023).

⁴ Dumfries and Galloway Council. Local Development Plan 2 (2019).

⁵ Land Use Consultants. Dumfries and Galloway Landscape Character Assessment (1998) – since republished by NatureScot of a national programme of Landscape Character Assessment republished in 2019. Available at: <https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions>

⁶ Dumfries and Galloway Council. Local Development Plan 2: Wind Energy Development: Development Management Considerations Supplementary Guidance (2020).

⁷ Dumfries and Galloway Council. Local Development Plan 2: Wind Energy Development: Development Management Considerations - Appendix 'C' Wind Farm Landscape Capacity Study Supplementary Guidance (2020).

⁸ Dumfries and Galloway Council. Local Development Plan 2: Regional Scenic Areas Technical Paper (2018).

⁹ Dumfries and Galloway Council. Local Development Plan 2: Dark Skies Friendly Lighting Supplementary Guidance (2020).

¹⁰ NatureScot. Description of Wild Land Area: 01 Merrick (2017). Available at: <https://www.nature.scot/doc/wild-land-areas-map-and-descriptions-2014>



this LVIA, albeit with the adopted supplementary guidance remaining the primary document referred to.

- 6.3.9. A full and detailed consideration of national and local planning policy is contained in **Chapter 5: Policy Context** of this EIAR and assessed in the accompanying **Planning Statement**.

Consultation

- 6.3.10. Throughout the EIA scoping process, and subsequently during the ongoing EIA process, relevant organisations were contacted with regards to the Proposed Development. **Table 6.1: Consultation Responses** below outlines the consultation responses received in relation to landscape and visual issues.

Table 6.1: Consultation Responses

Consultee	Details	Response	Where Addressed in the EIA Report
EIA Scoping Opinion – Energy Consents Unit	<i>“Include a robust Night Time Assessment with agreed viewpoints to consider the effects of aviation lighting and how the chosen lighting mitigates the effects”</i>	A night-time assessment forms part of the LVIA, including night-time visualisations. Mitigation has also been provided through the avoidance of tower lighting in addition to the hub lighting and other technical mitigation to minimise the impact of the lighting.	Appendix 6.7 and the visualisations for Viewpoints 1,3 and 9.
EIA Scoping Opinion – Energy Consents Unit	<i>“The scoping report identified viewpoints in Table 6.1 to be assessed within the landscape and visual impact assessment. Consultees did not request any additional viewpoints. However, Historic Environment Scotland state that ‘viewpoints from within the site should be considered to inform the current EIA Report’”</i>	It is noted that consultees did not request any additional LVIA Viewpoints.	Cultural Heritage visualisations are addressed separately in Chapter 11.



Consultee	Details	Response	Where Addressed in the EIA Report
EIA Scoping Opinion – NatureScot	<i>“We agree with the scoping assessment that there will be no potential for significant effects on the East Stewartry Coast National Scenic Area (NSA) and that this can be scoped out of the assessment”.</i>	Effects on the East Stewartry Coast National Scenic Area (NSA) have been scoped out of the assessment accordingly.	N/A
Dumfries and Galloway Council – Planning Officer	A list of potential additional LVIA viewpoints was provided, in advance of the feedback from the Landscape Officer.	Each of the locations has been included as a wireframe visualisation, in Appendix 6.8 and used to aid the assessment.	Appendix 6.8 and referenced throughout the assessment, where relevant.
Dumfries and Galloway Council – Landscape Officer	A list of potential additional LVIA viewpoints was provided, along with commentary on the earlier suggested locations of the Planning Officer.	Two of the locations were included as additional LVIA viewpoints, with others illustrated as a wireframe visualisation, in Appendix 6.8 and used to aid the assessment.	LVIA Viewpoints 16 and 17, Appendix 6.8, and references throughout the assessment, where relevant.

6.4 Methodology

6.4.1. The primary source of best practice for LVIA in the UK is the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3).

6.4.2. The LVIA presented in this chapter has been undertaken in accordance with the principles established in this document. It must however be acknowledged that GLVIA3 establishes guidelines not a specific methodology. The preface to GLVIA3 recognises that:

“This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.”

6.4.3. The methodology for this assessment has therefore been developed specifically for this LVIA to ensure that it is appropriate and fit for purpose.



6.4.4. Consideration has also been given to the following documents:

- Landscape Institute Technical Guidance Note 2/19 Residential Visual Amenity Assessment (RVAA)¹¹.
- Landscape Institute Technical Guidance Note 06/19 Visual Representation of Development Proposals¹².
- Landscape Institute Technical Guidance Note 02/21 Assessing landscape value outside of national designations¹³.
- Landscape Institute Technical Guidance Note LITGN-2024-01 Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA3)¹⁴.
- NatureScot Landscape Sensitivity Assessment Guidance (Methodology)¹⁵.
- NatureScot Guidance Assessing the cumulative landscape and visual impact of onshore wind energy developments¹⁶.
- NatureScot pre-application guidance for onshore wind farms¹⁷.
- Scottish Natural Heritage Guidance Siting and Design of Wind farms in the Landscape, Version 3a¹⁸.
- Scottish Natural Heritage Guidance Visual Representation of Wind Farms, Version 2.2¹⁹.

¹¹ Landscape Institute. Technical Guidance Note 2/19 Residential Visual Amenity Assessment (RVAA). Available at: <https://www.landscapeinstitute.org/technical-resource/li-technical-notes/>

¹² Landscape Institute. Technical Guidance Note 06/19 Visual Representation of Development Proposals (2019). Available at: <https://www.landscapeinstitute.org/technical-resource/li-technical-notes/>

¹³ Landscape Institute. Technical Guidance Note 02/21 Assessing landscape value outside of national designations (2021). Available at: <https://www.landscapeinstitute.org/technical-resource/>

¹⁴ Landscape Institute. Institute Technical Guidance Note LITGN-2024-01 Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA3) (August 2024). Available at: <https://www.landscapeinstitute.org/technical/glvia3-panel/>

¹⁵ NatureScot. Landscape Sensitivity Assessment Guidance (Methodology) (2022). Available at: <https://www.nature.scot/doc/landscape-sensitivity-assessment-guidance-methodology>

¹⁶ NatureScot. Guidance Assessing the cumulative landscape and visual impact of onshore wind energy developments (2021). Available at: <https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments>

¹⁷ NatureScot. NatureScot pre-application guidance for onshore wind farms (February 2024). Available at: <https://www.nature.scot/doc/naturescot-pre-application-guidance-onshore-wind-farms>

¹⁸ SNH. Guidance Siting and Design of Wind farms in the Landscape, Version 3a (2017). Available at: <https://www.nature.scot/doc/siting-and-designing-wind-farms-landscape-version-3a>

¹⁹ SNH. Guidance Visual Representation of Wind Farms, Version 2.2 (2017). Available at: <https://www.nature.scot/doc/visual-representation-wind-farms-guidance>



Scope of Assessment

- 6.4.5. The LVIA assesses both the long-term effects relating to the operational lifetime of the Proposed Development and the short-term temporary effects associated with the construction of the Proposed Development.
- 6.4.6. Where appropriate, the LVIA also considers any residual effects once the proposed turbines have been decommissioned and removed (assumed to be 35 years from the commencement of operation).
- 6.4.7. The LVIA considers both direct and indirect landscape and visual effects. It not only assesses the impacts associated with the turbines but also any related impacts resulting from the construction compound, borrow pits, underground cabling, site tracks, substation, energy storage facility, and access roads.
- 6.4.8. Consideration has been given to the movement of the turbine blades, along with seasonal variations when assessing the visibility of the Proposed Development.
- 6.4.9. The LVIA also considers any cumulative effects arising in conjunction with other wind farm developments in the study area, as defined below. Best practice guidelines identify two principal types of cumulative visual impact:
- Combined visibility – where the observer is able to see two or more developments from one viewpoint; and
 - Sequential visibility – where two or more developments are not visible at one location but would be seen as the observer moves along a linear route, for example, a road or public right of way.
- 6.4.10. The guidelines state that ‘combined visibility’ may either be ‘in combination’ (where two or more developments are visible from a fixed viewpoint in the same arc of view) or ‘in succession’ (where two or more developments are visible from a fixed viewpoint, but the observer is required to turn to see the different sites). Both types are discussed in this LVIA. The published GLVIA3 also indicates a difference in emphasis between sequential effects that are frequent and those which are occasional.
- 6.4.11. In relation to both the effects of the Proposed Development alone and the cumulative effects with other wind farm developments in the study area, both beneficial (positive) and adverse (negative) effects are considered. Wind farms give rise to a wide spectrum of opinions, ranging from strongly negative to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures, and a positive response to climate change. This spectrum of opinion has come to be referred to in relation to wind farms as the concept of valency.



- 6.4.12. For the avoidance of doubt, in considering the effects of the Proposed Development, a precautionary approach to the assessment has been adopted and it is assumed that, unless specifically stated otherwise, the effects of the Proposed Development would be adverse in nature even though it is acknowledged that, for some people, the impacts could be considered to be beneficial.

Effects Scoped Out of the Assessment

- 6.4.13. Based on the desk study, field work, the professional judgement of the LVIA team and experience of delivering other onshore wind energy projects, the following elements have been scoped out of detailed assessment:
- Effects on receptors located outside of the zone of theoretical visibility (ZTV).
 - Effects of decommissioning the Proposed Development at the end of its operational life as effects would be very similar in nature to those experienced during the construction, except in reverse.
 - Effects on landscape character during dark sky hours when aviation lighting is operating. Without being able to fully appreciate landscape features and components that contribute to landscape character it is not possible to conduct a meaningful landscape character assessment. This precedent was established in the Reporter's decision for Crystal Rig IV (WIN-140-8)²⁰.

Study Area

- 6.4.14. The Initial Study Area for the LVIA is a 35km radius from the turbines in all directions, as set out in the EIA Scoping Report (see **Appendix 1.1**). The extent of this study area is illustrated in **Figure 6.1**. Initial site work informed by analysis of preliminary ZTVs indicated that any significant landscape and visual effects are likely to occur within a much narrower radius from the Site; therefore, the level of assessment work in this LVIA incrementally decreases with distance from the Site, with the greatest focus of assessment being within the Detailed Study Area within 20km of the Site. The intention is that the detail of the LVIA remains proportional to the likely significance of effects, as advocated in GLVIA3.
- 6.4.15. In terms of cumulative effects, the intention has again been that assessment work is proportional to the likelihood of significant effects arising. The approach adopted in the cumulative LVIA has been to focus on other wind farms which are either operational, under construction, consented, subject to a full planning application, or that have received a scoping opinion response. Furthermore, the approach has been to focus the assessment on other wind farm developments which have the

²⁰ The Scottish Government. Crystal Rig IV Wind Farm (WIND-140-8). Reporter's Decision. 22 January 2021. Available at: <https://www.dpea.scotland.gov.uk/Document.aspx?id=732056>



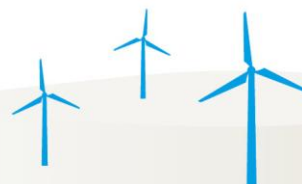
potential to give rise to significant cumulative effects. Further details of this approach are set out in the **Assessment of Cumulative Effects** below.

Landscape Assessment Methodology

- 6.4.16. A baseline landscape assessment was conducted to determine the current features and character of the landscape within and surrounding the Site.
- 6.4.17. The baseline landscape assessment involved firstly a review of desk material including:
- Ordnance Survey maps at 1:250,000; 1:50,000; 1:25,000 and 1:10,000 scales;
 - Aerial photographs of the Site and surrounding area;
 - Topography;
 - Current and historical land use;
 - Geology and soil maps;
 - Historic Parks and Designated Landscapes;
 - Relevant planning policy;
 - Relevant landscape sensitivity/capacity studies;
 - Relevant landscape character assessments; and
 - Relevant Historic Landscape Character Assessments.
- 6.4.18. Field visits have been conducted in a variety of weather conditions and at various times of the year during the pre-application stage.
- 6.4.19. The baseline assessment identified the existing landscape features on the Site, and in the immediate vicinity, and how these elements combine to give the area a sense of landscape character. Plans and construction details of the Proposed Development were used to determine the potential impacts of the development on landscape features and character.
- 6.4.20. The LVIA firstly assesses how the Proposed Development would impact directly on any existing landscape features or elements (e.g. removal of trees etc.). The LVIA then considers impacts on landscape character with reference to landscape character areas/types identified in published landscape character documents.

Visual Assessment Methodology

- 6.4.21. Potential visual receptors of the Proposed Development were identified by interpretation of digitally generated ZTVs (see **Appendix 6.2: ZTV and Visualisation Information** for an explanation of how the ZTVs were produced).
- 6.4.22. A selection of viewpoints was identified and agreed with statutory consultees to represent a range of views and viewer types as discussed in Visual

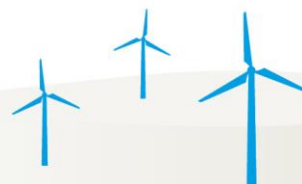


Representation of Wind Farms – Version 2.2 (NatureScot) and in Paragraphs 6.16-6.20 of GLVIA3.

- 6.4.23. The viewpoints cover a variety of different character areas, are in different directions from the Site, and are at varying elevations. Some of the viewpoints are intended to be representative of the visual experience in a general location whereas other viewpoints illustrate the view from a specific or important vantage point. The viewpoints are located at a range of distances from the Proposed Development to illustrate the varying magnitude of visual impacts.
- 6.4.24. Visualisations were produced for each of the viewpoints; these are presented in **Volume 3b** of this EIAR. An explanation of how they were produced and information to be read in conjunction with the visualisations is provided in **Appendix 6.2: ZTV and Visualisation Information**.
- 6.4.25. Each of the representative viewpoints was visited to gain an understanding of the sensitivity of the viewpoint receptors and to make professional judgements on the likely visual effects arising from the Proposed Development. Furthermore, the entire extent of the study area was visited to appreciate visibility of the Proposed Development as receptors move throughout the landscape.
- 6.4.26. The viewpoints were used as the starting point for considering the effects on visual receptors within the entire study area. The visual assessment does not rely solely on the viewpoint assessments to determine the significance of effects on different visual receptor groups throughout the study area. It should be recognised that the viewpoints illustrated in the LVIA simply represent a series of snapshots from a small selection of the locations within the study area from where the Proposed Development would be visible. Following the viewpoint assessment, the LVIA considers the effect on visual amenity throughout the study area with reference to different visual receptor groups at varying distances from the Site.

Assessment Criteria

- 6.4.27. The purpose of an LVIA when produced in the context of an EIA is to identify any significant landscape and visual effects within the study area to assist the determining authority in deciding the acceptability of the development under consideration.
- 6.4.28. In accordance with the GLVIA3, the level (relative significance) of an effect is ascertained by considering in tandem the nature (sensitivity) of the baseline landscape or visual receptor and the nature (magnitude) of change as a result of the Proposed Development. These two judgements are described as very high, high, medium, low, or very low.
- 6.4.29. The relative significance of landscape or visual effects is described as major, major/moderate, moderate, moderate/minor, minor or minor/no effect. No effect may also be recorded where the effect is negligible. Professional judgement is then employed to determine whether the effect is significant or not. Those effects



described as major, major/moderate and in some cases, moderate may be regarded as significant.

- 6.4.30. The detailed assessment criteria used to determine landscape and visual sensitivity, magnitude of change and significance of effect are set out in **Appendix 6.1: Landscape and Visual Impact Assessment Criteria**.

Assessment Limitations

- 6.4.31. The assessment of effects within this LVIA has been derived through the use of publicly available information only. Within such a large study area it is unfeasible to visit every individual location from which the Proposed Development might be visible as illustrated on the ZTVs. The authors of the LVIA have, however, spent a considerable length of time 'in the field' and visited all important viewpoints and locations within the study area, including the assessment viewpoints.
- 6.4.32. Limitations to the use of ZTVs and in relation to photography, wireframes and photomontages are set out in **Appendix 6.2: ZTV and Visualisation Information**.

6.5 Baseline

Site Location

- 6.5.1. The Site is located at Firtree Hill on open moorland hills within the administrative boundary of Dumfries and Galloway Council. The location of the Site is illustrated on **Figure 1.1** and the layout of the Site with the proposed turbine locations is shown on **Figure 1.2**.

Landscape Designations

- 6.5.2. A review of all landscape designations within the initial 35km LVIA study area has been undertaken. Landscape designations within 35km are illustrated on **Figure 6.2**, with those within 20km additionally shown on **Figure 6.3**.

International/National Landscape Designations

- 6.5.3. There are no national landscape designations covering the Site. The nearest National Scenic Area (NSA) is the Nith Estuary, which lies around 25km to the southwest. As illustrated on the ZTV overlaid on to the Landscape Designations within 35km of the Site on **Figure 6.25**, there would be very little potential for views of the Proposed Development from the NSA. Noting the distance between the Proposed Development and the NSA there would be no potential for significant effects on either visual amenity or landscape character to arise. Effects on the NSA are therefore not considered further in the assessment.



Local Landscape Designations

Regional Scenic Areas

- 6.5.4. There are 10no. Regional Scenic Areas (RSAs) in Dumfries and Galloway. The nearest RSA is the Torthorwald Ridge, which lies around 12km to the south-west of the Site. Five other RSAs also lie within the 35km study area, the Langholm Hills (13km to the east), the Moffat Hills (14km to the north), the Thornhill Uplands (20km to the north-west), the Terregles Ridge (25km to the south-west) and the Solway Coast (25km to the south-west).
- 6.5.5. Effects on the RSAs are considered within the preliminary assessment of Landscape Character Types (LCTs) and Designated Sites in **Appendix 6.3: Preliminary Assessment of LCTs Landscape Character Types and Designations** to determine which have the potential to experience significant effects and require detailed assessment.

Special Landscape Areas – Scottish Borders

- 6.5.6. There is one Special Landscape Area (SLA) in Scottish Borders which lies within the 35km study area, the Tweedsmuir Uplands SLA (26km to the north). As illustrated on the ZTV overlaid on to the Landscape Designations within 35km of the Site at **Figure 6.25**, there would be almost no potential for views of the Proposed Development from the SLA. Noting the distance between the Proposed Development and the SLA there would be no potential for significant effects on either visual amenity or landscape character to arise. Effects on the SLA are therefore not considered further in the assessment.

Special Landscape Areas – South Lanarkshire

- 6.5.7. There is one Special Landscape Area (SLA) in South Lanarkshire which lies within the 35km study area, the Leadhills and Lowther Hills SLA (23km to the north-west). As illustrated on the ZTV overlaid on to the Landscape Designations within 35km of the Site on **Figure 6.25**, there would be almost no potential for views of the Proposed Development from the SLA. Noting the distance between the Proposed Development and the SLA there would be no potential for significant effects on either visual amenity or landscape character to arise. Effects on the SLA are therefore not considered further in the assessment.

Gardens and Designed Landscapes

- 6.5.8. There are two Gardens and Designed Landscapes (GDLs) within 20km of the Site, Raehills, which lies around 11km to the north-west and Kinmount, around 19km to the south. Between 20km and 35km there are a number of GDLs, which are illustrated on **Figure 6.2**.
- 6.5.9. Where relevant, potential effects on these assets are considered further within the **Cultural Heritage Assessment in Chapter 11 of this EIAR**.



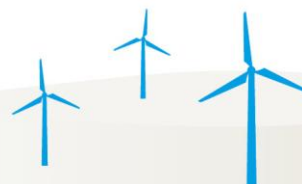
Wild Land

- 6.5.10. Wild Land Areas (WLAs) are mapped and described by NatureScot²¹. The nearest WLA to the Proposed Development is Talla-Hart Fell (WLA 02), which is located approximately 22km north of the Site.
- 6.5.11. The matter of wind energy and Wild Land is addressed in Policy 4 of the National Planning Framework 4 which states that:
- 'Buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration'.*
- 6.5.12. Given the distance between the Proposed Development and the WLA and the very limited potential for visibility illustrated on the ZTV overlaid on to the Landscape Designations within 35km of the Site on **Figure 6.25**, it is considered that the Proposed Development would have no potential to result in effects on the key attributes and qualities of the WLA. As such, effects on the Talla-Hart WLA are therefore not considered further in the assessment.

Galloway and Southern Ayrshire Biosphere Reserve

- 6.5.13. It is noted that part of the wider 35km study area to the west of the Proposed Development is located within the Galloway and Southern Ayrshire Biosphere Reserve. The Biosphere Reserve is not a landscape protection designation, nor does it have any statutory status in this regard. The Biosphere is a designation awarded by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). It recognises the landscapes, wildlife, cultural heritage and learning opportunities that South West Scotland offers for communities, businesses and visitors, to experience and celebrate in a sustainable way. The Biosphere designation brings no new rules or regulations but rather encourages people to work together to create a better future for people and nature.
- 6.5.14. It relates to an extensive area from Ayr in the north to Kirkcudbright in the south and from the Ayrshire coast in the west to Thornhill in the east, encompassing much of Ayrshire and Dumfries and Galloway. The goals of the Biosphere are to promote the preservation of wildlife, habitats, and landscape and seeks to do this through education and learning and the fostering of a sustainable economy and society. The Biosphere is not therefore a designation that changes the landscape baseline relating to the development of the Proposed Development nor the assessment of its potential effects.

²¹ NatureScot. Landscape Sensitivity Assessment Guidance (Methodology) (2022). Available at: <https://www.nature.scot/doc/landscape-sensitivity-assessment-guidance-methodology>



Emerging Galloway National Park

- 6.5.15. The Scottish Ministers have decided to propose the designation of Scotland's third National Park in Galloway, subject to relevant legal conditions and other requirements being met.
- 6.5.16. A map showing the approximate boundary line proposed in the nomination for the Galloway National Park that was submitted to the Scottish Government by the Galloway National Park Association and the Galloway and Southern Ayrshire UNESCO biosphere illustrates that the Proposed Development would be located around 25km from the National Park.
- 6.5.17. The proposal will now be sent to NatureScot to carry out the next stage of the process ("the reporter stage"). This involves NatureScot considering the national park proposal, consulting on this and producing a report for Scottish Ministers on the desirability of the proposed area being designated as a National Park. Scottish Ministers will then consider NatureScot's report and determine whether to designate the proposed area as a National Park with or without modifications. If the Scottish Ministers decide to proceed, they must then consult on the draft designation order.
- 6.5.18. The emerging National Park has no planning status at the current time. As a result, it is not considered further in this assessment.

Landscape Character

Published Landscape Character Descriptions

- 6.5.19. A review was undertaken of the following published sources of information regarding regional and local landscape character:
- SNH (now NatureScot) National Landscape Character Assessment²².
 - Dumfries and Galloway Wind Farm Landscape Capacity Study (DGWLCS)²³.
 - Scottish Borders Council Update of Wind Energy Landscape Capacity and Cumulative Impact Study (WELCACIS)²⁴
 - South Lanarkshire Landscape Capacity Study for Wind Energy (SLLCSWE)²⁵

²² NatureScot. National Landscape Character Assessment (2019). Available at: <https://www.arcgis.com/apps/webappviewer/index.html?id=e3b4fbb9fc504cc4abd04e1ebc891d4e&extent=-2030551.0017%2C6851563.2052%2C1100309.6769%2C8923312.4198%2C102100>

²³ Dumfries and Galloway Council. Local Development Plan 2. Wind Energy Development: Development Management Considerations. Supplementary Guidance (2020).

²⁴ Scottish Borders Council, Update of Wind Energy Landscape Capacity and Cumulative Impact Study (2016), Ironside Farrar

²⁵ South Lanarkshire Landscape Capacity Study for Wind Energy (2016), Ironside Farrar



- 6.5.20. It is acknowledged that there is a new Draft Wind Energy Landscape Sensitivity Study Supplementary Guidance document (dated October 2024) which was recently out for consultation, which closed in December 2024. This document is not currently adopted but has nonetheless been considered in the preparation of this LVIA, albeit with the adopted supplementary guidance remaining the primary document referred to.
- 6.5.21. At this point, for clarity, it is necessary to distinguish between two terms that are frequently used in published guidance and this chapter. They originate from the Guidelines for Landscape Character Assessment²⁶:
- Landscape Character Types (LCTs) are defined as tracts of landscape, which have a generic unity of character due to the particular combinations of landform, land cover, pattern and elements. The same landscape character type can occur at several different locations throughout a study area; and
 - Landscape Character Areas (LCAs) are defined as discrete geographical areas of a particular landscape character type and can only occur at a single location.

Landscape Character Types Covering the Site

- 6.5.22. With reference to **Figures 6.4 and 6.5**, the proposed turbines and the majority of the wind farm access tracks and associated infrastructure are located within Landscape Character Type (LCT 175) Foothills - Dumfries & Galloway as defined by NatureScot and within the Annandale unit of the Foothills (LCT 18) as defined in the DGWLCS. The DGWLCS summarises key characteristics of the area as:

“a long band of low rolling hills cut by narrow valleys on the east side of Annandale. These foothills are broader in extent in the south but taper to form a narrow fringe in the north, backed by the higher Southern Uplands with Forest (19a) to the south of Moffat. These foothills have a diverse character with broader hill tops interspersed with more complex knolly landform and cut by narrow winding valleys. The western and southern edges of these foothills are particularly visible from surrounding well settled lowlands of Annandale”.

- 6.5.23. The DGWLCS goes on to set out that *“Wind farm development strongly influences the character of the southern part of these foothills”*. This relates to the area of the landscape around 10km to the east and south-east of the Proposed Development, in and around the operational Crossdykes, Ewe Hill, Craig, Minsca and Solway Bank wind farms.
- 6.5.24. The DGWLCS goes on to identify the area as having a ‘high-medium’ sensitivity to turbines greater than 50m high, stating *“the settled nature of these foothills and*

²⁶ The Countryside Agency and Scottish Natural Heritage. Landscape Character Assessment. Guidance For England and Scotland (2002).



the presence of existing wind farm development limit scope for additional development” and “It is considered that capacity has largely been reached for the Large and Medium development typologies (turbines >50m)”

- 6.5.25. With regard to the potential for the ‘Very Large typology (turbines >150m high)’ the DGWLCS sets out that:

“There is no scope for new developments of Very Large turbines (+150m) in the Annandale Foothills (18) or West Langholm Southern Uplands with Forest (19a) as these are less extensive upland landscapes and lie close to more sensitive settled valleys and dales and substantially larger turbines would not be appropriate in landscape terms.”

- 6.5.26. The western edge of the Site also overlaps with NatureScot LCT 172 - Upland Fringe - Dumfries & Galloway, and within the Annandale unit of the Upland Fringe (LCT 16) as defined in the DGWLCS. No development is however included within this part of the Site as part of the Proposed Development, with any effects therefore being indirect.

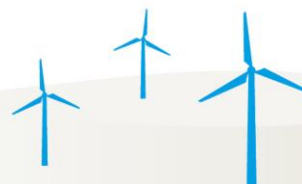
- 6.5.27. Since the DGWLCS was published in 2020, NatureScot has prepared revised guidance on sensitivity assessment and advises that updating of existing studies may be required as development patterns and technology change and that reference to ‘capacity’ should be removed. This is reflected in the emerging Draft Wind Energy Landscape Sensitivity Study Supplementary Guidance document. The NatureScot guidance also notes that *“a finding of ‘high sensitivity’ does not necessarily mean that there is no ability to accommodate development and ‘low’ sensitivity does not necessarily mean there is definitely potential for development”*.

- 6.5.28. It is also important to acknowledge that landscape and visual effects arising from a proposed wind farm are one factor weighed in the overall planning balance, set against the current renewable energy and planning policy context applicable at the time.

Other Landscape Character Types to be assessed

- 6.5.29. In order to consider the indirect effects of the Proposed Development on landscape character, LCTs within 35km of the Proposed Development have been illustrated on **Figure 6.4**, with those located within the detailed 20km LVIA Study Area illustrated on **Figure 6.5**. The LCTs within 20km have also been overlaid with the ZTV on **Figure 6.27**.

- 6.5.30. An initial filtering exercise has been undertaken to determine which LCTs would have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each LCT is proportionate to the likelihood of significant effects arising. The discussion below summarises the process followed in deciding which LCTs have the potential to experience significant effects as well as those LCTs that do not require any further consideration.



- 6.5.31. With reference to **Figure 6.4** and the blade tip ZTV at **Figure 6.11**, all LCTs located between 20km and 35km have been scoped out of further assessment, on account of the distance from the Proposed Development, the influence of other closer wind farm development and the relatively limited theoretical visibility. It is acknowledged that there may be very limited potential for effects on the character of available views from these LCTs but there would be no potential for significant effects to arise.
- 6.5.32. All LCTs present within the detailed 20km LVIA Study Area have been subject to an initial sieving exercise. The findings of this exercise are presented at **Table 6.3.1 of Appendix 6.3: Preliminary Assessment of LCTs Landscape Character Types and Designations**.
- 6.5.33. The LCTs assessed in detail in this chapter are:
- NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) - Proposed Development (including all turbines) is located within this LCT.
 - NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit) – part of the Site lies is located within this LCT, but none of the Proposed Development.
 - NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit).
 - NatureScot LCT 163: Middle Dale - Dumfries & Galloway / DGWLCS LCT 7 Middle Dale (Mid Annandale unit) and DGWLCS LCT 7a Middle Dale with Hills.
 - NatureScot LCT 162: Lower Dale - Dumfries & Galloway / DGWLCS LCT 6 Lower Dale (Lower Annandale unit).

Local Landscape Description and Character Appraisal

- 6.5.34. A plan illustrating the landscape features/elements within the Site and its immediate context (within a 2km radius of the proposed turbines) is presented on **Figure 6.7**. The following discussion provides an overview of the physical and perceptual characteristics of the Site and the immediately surrounding landscape without particular reference to published landscape character types.

Topography

- 6.5.35. Topography within 35km of the Proposed Development is illustrated on **Figure 6.8**.
- 6.5.36. The topography of the Site is characterised as being part of the upland foothills landscape; set above the lower-lying landscape of the Dryfe Water Valley to the west. The highest point in the Site is the top of Firtree Hill at 250m AOD, with the



lowest part of the Site at around 180m AOD on the track which runs towards Hallhills farm.

Watercourses and Drainage

- 6.5.37. A small waterbody known as Hallhills Loch lies in the northern part of the Site, with a small watercourse known as the Hewke Burn running into and out of the Loch. Other named watercourses within the Site include the Kirkcroft Burn and the Rockhillflat Burn, with further unnamed watercourses also passing through the Site.
- 6.5.38. In the wider surrounding landscape, the Dryfe Water forms a notable landscape feature to the west of the Site, which in turn flows into the river Annan. To the east of the Site runs the Corrie Burn.

Vegetation

- 6.5.39. The Site consists primarily of an area of predominantly open moorland, with some pastoral farmland towards its southern extent near Balgrayhill farm. A small area of woodland is also located alongside the Rockhillflat Burn.
- 6.5.40. The Site is located immediately adjacent to a large area of plantation woodland to the north-east, with a smaller area also adjacent to the south-east.
- 6.5.41. Within the wider Study Area, woodland and trees are a common feature of the Dryfe Water Valley to the west, with more extensive coniferous plantations and woodlands found in the upland landscapes to the east and across on the opposite side of the Annandale valley to the west. Managed grazed fields are frequently bound by hedgerows, and dotted with trees and riparian vegetation along watercourses, whilst occasional shelterbelts and small plantation woodlands appear across the agricultural landscape, often in the proximity of scattered residential properties or dispersed communities.

Built Infrastructure

- 6.5.42. The majority of the Site does not feature any built infrastructure, however the transmission overhead electricity power line which passes through the Site on a broadly north north-west to south south-east alignment is a notable feature. A farm access track from Hallhills farm also runs up into the Site from the west, with a forestry access track running from the north-east, which forms the proposed access route for the Proposed Development.
- 6.5.43. Within the wider landscape, there are numerous individual farmsteads and small groups of properties, villages, and occasional small towns, situated mainly within the more settled valley landscapes, with some properties located at slightly higher elevations along the main routes that pass through the area.
- 6.5.44. Within the detailed 20km LVIA study area, there are several main transport routes that include: the A709, which runs between Dumfries and Lockerbie; the A701



which runs between Dumfries and the A74(M) and the A75 that passes through the southern portion of the study area as it runs between Dumfries and Gretna. The West Coast mainline railway also runs to the west of the Site, as it passes between Lockerbie and Glasgow.

- 6.5.45. In addition to the primary routes, there is an extensive network of B-class roads and minor roads passing through the 20km study area. These include the B723 which runs through the Dryfe Water valley to the west of the Site.
- 6.5.46. There are also several operational wind farms in the landscape around 10km to the east and south-east of the Site. These include the Crossdykes, Ewe Hill, Craig, Minsca and Solway Bank developments. Other wind farms within 20km are illustrated on **Figure 6.10**. Other notable developments include the Steven's Croft Biomass Power Station to the north of Lockerbie and the former Chapelcross Nuclear Power station to the north of Annan.

Sensory and Perceptual Characteristics

- 6.5.47. The Site comprises a relatively broad, open, upland landscape. Parts of the Site allow for broad sweeping views in all directions, with views west extending across the lower-lying Annandale valley landscape. Views extend to upland areas, with the Lowther Hills providing the visual backdrop in views to the north-east.
- 6.5.48. In addition to the more settled, farmed landscapes surrounding the Site, the foothills landscape reflects the cultural importance of a landscape that has been shaped by human influences through its management and use for sport and recreation, as well as for upland grazing. The adjacent roads, forestry plantations, and nearby operational wind farms are further evidence of man's influence on the landscape, as is the transmission overhead electricity power line which passes through the Site.
- 6.5.49. Whilst aspects of the Site exhibit some perception of remoteness and tranquillity, it is strongly influenced by its proximity to these other moderating influences.

Forces for Future Change in the Landscape

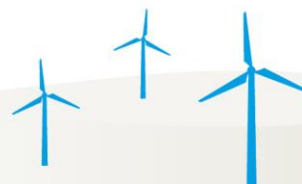
- 6.5.50. If the Site were not to be developed to accommodate the Proposed Development, the land may remain in its present condition over the short-term, although there is potential that the site may be brought into use as a forestry plantation, in line with much of the surrounding landscape.
- 6.5.51. Over the medium and longer term, the main foreseeable forces for change in the landscape surrounding the Site relate to changes to the forest plantations, with areas of felling and replanting in line with forest management plans. Further changes may also occur due to changes in agricultural land use and changes to traditional forms of moorland management, which may change over time, such as by introducing longer rotations between burning, or changes to vegetation resulting from re-wetting or rewilding to encourage greater habitat diversity.



- 6.5.52. Within the wider landscape, there are several commercial wind energy developments and several consented schemes which, if built, would also influence the existing nature of the wider landscape surrounding the Proposed Development as set out in the Cumulative Assessment (see **Assessment of Cumulative Effects** below). In relation to operational wind energy developments, it is recognised that some may be subject to applications for repowering, but that decommissioning would be the default.
- 6.5.53. In addition to the consented or proposed developments within the vicinity of the Site, it is widely recognised that climate change will have an impact on the future character of the Scottish landscape through changes to weather conditions that will in turn result in changes to vegetation that will affect the intrinsic character of the landscape.
- 6.5.54. Other pressures that may cause change in the baseline landscape and visual context in the future may include built development along infrastructure corridors and trunk roads, and potential settlement expansion.

Visual Receptors

- 6.5.55. With reference to the blade tip ZTV (see **Figure 6.11**), theoretical visibility is restricted to a principal area that extends to approximately 10km to the north and east, north and south, and to approximately 15km to the west and south. Whilst it is recognised that theoretical visibility is predicted at greater distances, it does become patchier and more intermittent and generally limited to the more elevated parts of the wider surrounding landscape.
- 6.5.56. As a result, it was determined that there was no potential for the Proposed Development to result in any significant visual effects at distances over 20km from the Site. Furthermore, with increasing distance from the Site, the likelihood of significant visual effects occurring incrementally decreases. Therefore, whilst the primary study area for this LVIA extends out to 35km and the various figures which accompany this report illustrate an initial 35km study area, the assessment has focused on visual receptors within the detailed 20km LVIA study area.
- 6.5.57. Interpretation of the ZTVs (see **Figures 6.11 – 6.23**) assisted in identifying potentially sensitive visual receptors of the Proposed Development. Principal visual receptors within the surrounding landscape are illustrated on **Figure 6.6**. The blade tip ZTV has been overlaid over those located within the detailed 20km LVIA study area on **Figure 6.24**. The principal visual receptors have been identified as follows.



Residential Receptors and Settlements

- 6.5.58. For the LVIA, consideration has been made to the settlements within the study area as listed in the Dumfries and Galloway Local Development Plan 2²⁷.
- 6.5.59. Residential visual receptors have been identified in bands of distance from the nearest turbine. Whilst a greater level of detail has been provided in relation to those properties located nearest to the Proposed Development, it is recognised that there may be views from individual properties and clusters of properties throughout the wider study area.
- 6.5.60. With reference to the ZTVs (see **Figures 6.11 – 6.24**) only those properties or settlements with theoretical visibility of the Proposed Development have been identified. Those settlements with no theoretical visibility have not been considered further within this chapter.
- 6.5.61. It is worth stating that this assessment considers the outlook/visual amenity at residential properties as a way of assessing if the effect would be significant or not on the settlement as a whole, with consideration given in relation to public views and public visual amenity.

Residential Properties within 2km

- 6.5.62. A number of residential properties were identified as being located within 2km of the Proposed Development from a combination of Ordnance Survey (OS) Address base data, OS 25,000 raster data, and aerial photography. Effects on these properties are considered further in the Residential Visual Amenity Assessment at **Appendix 6.6: Residential Visual Amenity Assessment (RVAA)**. Residential receptors within 2km of the Proposed Development are shown on **Figure 6.6.1: Residential Visual Amenity Study Properties** which accompanies **Appendix 6.6: Residential Visual Amenity Assessment (RVAA)**. The small settlement of Sibbaldbie also lies primarily within 2km of the Proposed Development and is also considered in addition to the individual residential properties.

Residential Properties within 2km to 5km

- 6.5.63. Between 2km and 5km of the proposed turbines, there are numerous residential properties scattered throughout the surrounding landscape comprised of individual farmsteads and small clusters of properties. Many of the properties are located along the B723, or minor roads in the local landscape. The village of Boreland is located around 3km to the north of the Site and Corrie Common lies around 4km to the south-east. There are however no primary towns within 5km of the Proposed Development.

²⁷ Dumfries and Galloway Council. Local Development Plan 2 (2019).



Settlements within 5km to 10km

6.5.64. Settlements within 5km to 10km from the Proposed Development experiencing theoretical visibility of the Proposed Development are:

- Lockerbie – around 6km to the south.
- Johnstonebridge – around 6km to the north-west.
- Millhousebridge – around 6km to the west.
- Newton – around 7km to the north-west.
- Templand – around 7km to the west.
- Lochmaben – around 9km to the south-west.

Larger Settlements within 10km to 20km

6.5.65. Larger settlements within 10km to 20km from the Proposed Development experiencing theoretical visibility of the Proposed Development are:

- Ecclefechan – around 13km to the south.
- Beattock – around 16km to the north.
- Moffat – around 18km to the north.
- Langholm – around 19km to the south-east.

6.5.66. An initial filtering exercise has been undertaken of settlements within the detailed 20km LVIA study area to determine which have the potential to experience significant effects and therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given is proportionate to the likelihood of significant effects arising. The findings of the initial filtering exercise are presented at **Table 6.4.1** of **Appendix 6.4: Preliminary Assessment of Visual Receptors**.

6.5.67. This filtering exercise identified that the following settlements have the potential to experience significant effects as a result of the Proposed Development and are taken forward for further assessment: Sibbaldie; Boreland; Corrie Common and Lochmaben.

Core Paths

6.5.68. There are numerous core paths located within the detailed 20km study area, as illustrated on **Figure 6.6**, with those located within 2km of the Proposed Development also shown on **Figure 6.7**.

6.5.69. According to **Figure 6.24**, which illustrates the blade tip ZTV overlaid over the visual receptors located within the detailed 20km LVIA study area, theoretical visibility from the core paths is more limited beyond 10km. As a result, the



assessment has focussed on core paths within 10km from the Proposed Development.

- 6.5.70. An initial filtering exercise has been undertaken to determine which of the core paths have the potential for significant effects to arise and would therefore require detailed consideration. The intention has been to ensure that the level of attention given to each core path is proportionate to the likelihood of significant effects arising. The findings of the initial sieving exercise are presented at **Table 6.4.2 of Appendix 6.4: Preliminary Assessment of Visual Receptors**. Core paths with no theoretical visibility have not been considered further within this chapter.
- 6.5.71. This filtering exercise identified that users of the following routes have the potential to be significantly affected by the Proposed Development:
- NORT/312 - Boreland to Southern Upland Way (SUW) – which runs around 3km to the north of the Site at its closest point.
 - NORT/309 - Corrie Common to Hart Fell Loop – which runs around 4km to the south-east of the Site at its closest point.
 - LOCW/285 - Mainshill to the Hass – which runs around 5km to the south of the Site at its closest point.
 - NORT/311 - Thundergarth to Hazelberry Hill; NORT/313 - Hazelberry to Burnswark; and HODD/259 - Burnswark Circular – which link together to form a route which runs around 7km to the south of the Site at its closest point.

Recreational Routes

- 6.5.72. There are a number of long-distance recreational routes located within the detailed 20km study area, which are illustrated on **Figure 6.6**, with those located within 2km of the Proposed Development also shown on **Figure 6.7**.
- 6.5.73. According to **Figure 6.24**, which illustrates the blade tip ZTV overlaid over the visual receptors located within the detailed 20km LVIA study area, theoretical visibility from the recreational routes is more limited beyond 10km. As a result, the assessment has focussed on recreational routes within 10km from the Proposed Development.
- 6.5.74. An initial filtering exercise has been undertaken to determine which of the recreational routes have the potential for significant effects to arise and would therefore require detailed consideration. The intention has been to ensure that the level of attention given to each route is proportionate to the likelihood of significant effects arising. The findings of the initial sieving exercise are presented at **Table 6.4.3: Preliminary Assessment of Recreational Routes of Appendix 6.4: Preliminary Assessment of Visual Receptors**. Recreational routes with no theoretical visibility have not been considered further within this chapter.



6.5.75. This filtering exercise identified that users of the Annandale Way, which runs around 6km to the south-west of the Proposed Development at its closest point, are the only ones which have the potential to be significantly affected by the Proposed Development.

Roads and Railways

6.5.76. There are numerous roads located within the detailed 20km study area, as shown on **Figure 6.6**. The West Coast mainline railway also runs to the west of the Site, as it passes between Lockerbie and Glasgow

6.5.77. According to **Figure 6.24**, which illustrates the blade tip ZTV overlaid over the visual receptors located within the detailed 20km LVIA study area, theoretical visibility on primary, A-class, and B-class roads is more limited beyond 10km. As a result, the assessment has focussed on those roads within 10km from the Proposed Development.

6.5.78. An initial filtering exercise has been undertaken to determine which of the roads and railways have the potential for significant effects to arise and would therefore require detailed consideration. The intention has been to ensure that the level of attention given to each route is proportionate to the likelihood of significant effects arising. The findings of the initial sieving exercise are presented at **Table 6.4.4: Preliminary Assessment of Roads and Railways of Appendix 6.4: Preliminary Assessment of Visual Receptors**. Roads with no theoretical visibility have not been considered further within this chapter.

6.5.79. This filtering exercise identified that users of the following routes have the potential to be significantly affected by the Proposed Development:

- A74(M) - which runs around 5km to the west of the Site at its closest point.
- A709 - which runs around 7km to the south of the Site at its closest point.
- B723 - which runs around 2km to the west of the Site at its closest point.
- B7076- which runs around 5km to the west of the Site at its closest point.
- B7068 - which runs around 6km to the south of the Site at its closest point.
- B7020 - which runs around 8km to the west of the Site at its closest point.
- West Coast mainline railway – which runs around 5km to the south-west at its closest point

Assessment Viewpoints

6.5.80. The following table sets out the viewpoints considered as part of this assessment. These viewpoints have been derived through desk-based and on-site analysis, interpretation of ZTVs, and through consideration of the viewpoints used in the assessment of other nearby wind farms. The assessment viewpoints have also been consulted on as part of the EIA scoping process and amended following feedback received.



6.5.81. The viewpoints are representative of a range of views towards the Proposed Development. They are not intended to cover every single view but are representative of a range of distances from the Site and receptor types (e.g. residents, walkers, road users). They have been used to inform the assessment of effects on landscape character, the visual assessment, the cumulative assessment, and the assessment of visual receptor groups.

6.5.82. **Table 6.2: Assessment Viewpoints** below identifies the 17 assessment viewpoints. The locations of these viewpoints are illustrated on **Figure 6.23**.

Table 6.2: Assessment Viewpoints

Viewpoint	OS Grid Reference	Approximate Distance to Nearest Turbine
1 - B723, Croftfoot (N)	315496, 589919	1,691m
2 - Balgrayhill	315323, 586290	1,704m
3 - Minor road, Stobohill Cottage (N)	318703, 588521	1,659m
4 - B723, Sibbaldbie	314493, 587662	1,909m
5 - Boreland	317113, 591131	2,530m
6 -Corrie Common	320471, 586120	3,377m
7 - Rangecastle Hill	319005, 593665	5,555m
8 - Lockerbie	313136, 582984	5,630m
9 - B7068, Bankshill (N)	318981, 581867	5,857m
10 - Annandale Way, Lochbrow	309282, 588897	7,125m
11 - B7020, Annadale Way	308693, 584033	8,596m
12 - Burnswark Hill Fort	318545, 578639	8,940m
13 - A709 west of Lockerbie (bridge over River Annan)	310380, 580836	9,057m
14 - Romans & Reivers	317007, 604127	15,481m
15 - Southern Upland Way	306520, 601850	16,617m
*16 - B723, north-east of Boreland	318573, 591990	3,872m
*17 - Footpath, east of Lockerbie	314560, 581517	6,251m

* Additional LVIA Viewpoint added following feedback received at scoping.

(N) – Night-time visualisation produced from this viewpoint in addition to day-time visualisation.

6.5.83. **Appendix 6.5: Viewpoint Assessment** provides a baseline description of the view from each assessment viewpoint, followed by a detailed analysis and assessment of the effects.

6.5.84. In addition to the Assessment Viewpoints, a series of additional locations in the landscape highlighted through the EIA Scoping process have been illustrated with wireframe visualisations, included at **Appendix 6.8** and have also been used to aid the assessment.



6.6 Assessment of Potential Effects

- 6.6.1. Following a brief summary of the Proposed Development, this section of the LVIA considers the effects of the Proposed Development on the physical features of the Site (landscape fabric), landscape character, and visual amenity. It considers the effects during the construction and operational phases of the Proposed Development.
- 6.6.2. Effects during the construction phase are considered to be temporary and would have a short duration. Effects associated with the operational phase of the Proposed Development are considered to be long-term, reversible effects.

Effects during Construction on Existing Landscape Features

- 6.6.3. The construction phase would result in the temporary removal of some moorland vegetation and other such ground-level vegetation, through the construction of on-site access tracks, hardstanding areas, a substation and control room, BESS, on-site underground cabling, temporary borrow pit workings, construction compounds, and turbine foundations. Underground electricity cables would generally follow access tracks.
- 6.6.4. The areas of existing moorland vegetation which are required to facilitate the construction of the infrastructure listed above would be removed to allow construction of foundations for the various elements. Soils stripped as part of the establishment works would be stored in accordance with established soil handling best-practice for use during reinstatement works on completion of construction activities. This would be managed through the preparation and implementation of a Construction Environmental Management Plan details of which are discussed in **Chapter 3: Description of Development**.
- 6.6.5. As set out in **Chapter 3: Description of Development**, up to two borrow pit search areas would be required. The final location, number, and estimate of material won from each search area would be determined once full ground investigation works, and testing has been completed. Their excavation would be short-term and would result in the removal of moorland vegetation, soils, and subsurface rock. Borrow pit workings would be restored following construction to encourage re-vegetation; although, it is accepted that some regrading of the land profile would be expected.
- 6.6.6. Moorland vegetation is a frequently encountered feature of the wider surrounding upland landscape. Whilst it does not form part of the fabric of a site designated for its scenic value, it is a characteristic feature of the upland moorland landscape. The moorland vegetation is a human influenced landscape element that has evolved over time through land management practices and management of the moorland for sport. The ongoing change and modification resulting from moorland management practices, lowers its susceptibility. Combining its value and susceptibility results in the sensitivity of the moorland vegetation found on the Site being judged as low.



- 6.6.7. The moorland vegetation would experience a medium magnitude of change resulting from the construction of new access tracks, laydown areas, crane pads, and turbine foundations, which would affect a small portion of the overall moorland contained within the Site boundary extents. Large areas of moorland would subsequently remain unaffected, particularly parcels of land in the southern and western parts of the Site. The overall level of effect on the moorland vegetation found on Site as a landscape feature as a result of the Proposed Development is **Moderate/minor**, which is not considered to be significant.
- 6.6.8. Watercourse crossings would be required as part of the Proposed Development. Watercourses are considered to be of low value in landscape terms but highly susceptible to changes which affect their course or their quality. Combining their value and susceptibility results in the watercourse and drainage features found on Site as having a medium level of sensitivity as landscape features.
- 6.6.9. The proposed turbines and associated infrastructure have been located away from any watercourses/channels on the Site. It is therefore only in the location of the proposed watercourse crossings where there is potential for construction effects to occur. As effects would be limited and controlled through best-practice construction and environmental practices, the predicted change would result in no greater than a low magnitude change. As a result, effects are judged as being **Moderate/minor**, which is not considered to be significant.

Summary of Effects on Existing Landscape Features

- 6.6.10. The Proposed Development would result in a **Moderate/minor** effect to the moorland vegetation found on Site, and no greater than a **Moderate/minor** effect to watercourses and drainage channels. These effects are both considered to be not significant.

Assessment of Effects on Landscape Character

- 6.6.11. The LCTs covering the initial 35km LVIA study area are shown on **Figure 6.4**, and within the detailed 20km LVIA study Area at **Figure 6.5**. LCTs within 20km of the Proposed Development overlaid with the blade tip ZTV are illustrated at **Figure 6.27**.
- 6.6.12. As explained in the baseline section, an initial filtering process has been carried out on all LCTs within the detailed 20km LVIA study area which identified that, in addition to the two LCTs in which the Proposed Development is sited, a further three LCTs have the potential to be significantly affected by the Proposed Development. The LCTs assessed in detail in this chapter are:
- NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) - Proposed Development (including all turbines) is located within this LCT.



- NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit) – part of the Site is located within this LCT, but none of the Proposed Development.
- NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit).
- NatureScot LCT 163: Middle Dale - Dumfries & Galloway / DGWLCS LCT 7 Middle Dale (Mid Annandale unit) and DGWLCS LCT 7a Middle Dale with Hills.
- NatureScot LCT 162: Lower Dale - Dumfries & Galloway / DGWLCS LCT 6 Lower Dale (Lower Annandale unit).

Sensitivity of Landscape Character to Wind Energy Development

- 6.6.13. The first stage in assessing the effects of the Proposed Development on landscape character is to evaluate the sensitivity of the LCTs brought forward into detailed assessment, to the type of change proposed. As indicated within GLVIA3, sensitivity of landscape character should be determined through a consideration of both susceptibility to change and any values associated with the landscape.
- 6.6.14. The DGWLCS provides some guidance in assessing the sensitivity of those LCTs brought forward into detailed assessment. The document should however be read with caution as it does not necessarily just consider landscape sensitivity (value and susceptibility). NatureScot advise that such studies should not be referred to as ‘*capacity studies*’ as no local or regional targets are available on which to determine the ‘capacity’ for development. They advise that these studies “*should reflect their purpose, which is to provide a strategic assessment of relative landscape and visual sensitivity to certain defined forms of development*”²⁸.
- 6.6.15. Furthermore, the DGWLCS is four years old and is outdated to some extent as a result of wind farm developments which have been either consented or constructed in the intervening period and changes to the onshore wind energy planning policy context. It is therefore necessary to evaluate whether changes to the baseline (including in terms of recently consented or constructed wind farms) have altered sensitivity as reported in these studies.
- 6.6.16. It is also important to note that the judgements in the DGWLCS concern how sensitive each character type is to wind energy development being deployed within that specific unit. This is not necessarily the same as being of a particular sensitivity to wind farm development in an adjacent or distant character unit, which may only result in indirect effects on landscape character. The sensitivity of the character unit to wind energy development in an adjoining or distant character unit

²⁸ NatureScot Website. Landscape sensitivity studies. Available at:

<https://www.nature.scot/professional-advice/landscape/landscape-tools-and-techniques/landscape-sensitivity-studies>



would typically be lower. This is because at any given location in a landscape, whilst features of the wider landscape do help to characterise that area, even where views out of a character area are not specifically mentioned as an important characteristic, the physical features and perceptual characteristics of the landscape in the immediate vicinity have a far greater influence on character and one's sense of landscape character than distant features, no matter how tall they may be.

- 6.6.17. Therefore, whilst the DGWLCS is a useful tool to help inform the consideration of the value and susceptibility of the LCTs brought forward into detailed assessment, it should be noted that the findings have not necessarily been adopted verbatim. Rather the approach taken has been to seek to provide a sensitivity rating for each area in line with the approach advocated in GLVIA3, whilst taking the findings of these assessments into consideration. As part of this process consideration has been given to the emerging new Draft Wind Energy Landscape Sensitivity Study Supplementary Guidance document (dated October 2024) which was recently out for consultation, which closed in December 2024.

Table 6.3: Landscape Character Sensitivity

Landscape Character Type	Value	Susceptibility	Sensitivity
NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit)	High	High	High
NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit)	High	High	High
NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit)	High	High	High
NatureScot LCT 163: Middle Dale - Dumfries & Galloway / DGWLCS LCT 7 Middle Dale (Mid Annandale unit) and DGWLCS LCT 7a Middle Dale with Hills	High	High	High
NatureScot LCT 162: Lower Dale - Dumfries & Galloway / DGWLCS LCT 6 Lower Dale (Lower Annandale unit)	High	High	High

Effects on Landscape Character during Construction

- 6.6.18. The Proposed Development (including all turbines) is located within a tract of NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) which covers the landscape to the east of the Dryfe Water valley, extending south-eastwards across Corrie Common and beyond towards Grange Fell.



- 6.6.19. During the construction phase, there would be the temporary presence of cranes on the Site and the movement of other construction traffic, consistent with the formation of access tracks, hardstandings, turbine foundations, other associated infrastructure, and the installation of the turbines.
- 6.6.20. Effects during construction on landscape character would increase incrementally through the construction phase as more turbines, foundations, hardstandings, and ancillary elements are constructed. Construction activities would move from turbine location to turbine location and, as activities increased in one location, they would be decreasing at locations where construction had finished.
- 6.6.21. Cranes would be involved in the erection of the turbines, but these would be onsite for a relatively short period during the overall construction phase. The cranes would form noticeable vertical features in the landscape for a short period of time but would be a relatively diminutive visual component given their slender form compared with the turbines being erected.
- 6.6.22. As previously discussed, there would be no significant effects on any existing landscape features. There would however be localised areas of high magnitude of change to landscape character upon part of NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) during the construction phase. This would result in a **major** temporary additional effect on part of the LCT where the Proposed Development is located, which would be significant. Construction activity would however occur in an elevated, upland part of the LCT which would serve to limit its influence on the surrounding slopes and lower-lying parts of the LCT. The wider extent of the LCT would therefore experience no greater than a **moderate/minor** temporary additional effect that would not be significant
- 6.6.23. In terms of indirect effects on the other landscape character types brought forward into detailed assessment, there would be no greater than a low magnitude of change. Some limited additional effects would be experienced as construction takes place on the Site. Views of activity taking place on the Site would however be largely restricted by the landform and vegetation, mainly limiting views to the cranes, rather than the ground level works, resulting in a **moderate/minor** temporary additional effect that would not be significant.
- 6.6.24. A summary of the effects on landscape character during construction is presented in **Table 6.4: Assessment of Effects on Landscape Character during Construction**. Note that for all character types stated within this table, the duration of the Proposed Development is considered to be temporary.



Table 6.4: Assessment of Effects on Landscape Character during Construction

Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit)	High	High	Major (within the area covered by the Site and its immediate surroundings) Moderate/minor for the remainder of the LCT	Yes (within the area covered by the Site and its immediate surroundings only)
NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit)	High	Low	moderate/minor	No
NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit)	High	Low	moderate/minor	No
NatureScot LCT 163: Middle Dale - Dumfries & Galloway / DGWLCS LCT 7 Middle Dale (Mid Annandale unit) and DGWLCS LCT 7a Middle Dale with Hills	High	Low	moderate/minor	No
NatureScot LCT 162: Lower Dale - Dumfries & Galloway / DGWLCS LCT 6 Lower Dale (Lower Annandale unit)	High	Low	moderate/minor	No

Effects on Landscape Character during Operation

6.6.25. The effects on landscape character are discussed below in relation to each of the landscape character types brought forward into detailed assessment (see **Technical Appendix 6.3**). The magnitude of change on landscape character as a result of the Proposed Development has been determined using professional judgement based on the following factors:

- The percentage of the character type from where the Site would theoretically and actually be visible;



- The distance between the character type and the Site;
- The likely prominence of the turbines from the character type taking account of existing locally dominant characteristics in the character type; and
- The degree to which the physical and perceptual characteristics of the landscape would change as a result of the Proposed Development.

- 6.6.26. To aid the consideration of the operational effects on landscape character, the landscape character types within the detailed 20km LVIA study area have been overlaid with the blade tip ZTV in **Figure 6.27**.
- 6.6.27. Beyond the immediate environs of the Site, the ground level components of the Proposed Development would not be discernible from lower-lying areas due to the elevated landform upon which the Proposed Development would be located. Therefore, effects on landscape character, as experienced in the wider landscape, for most locations arise largely in relation to the introduction of the proposed turbines into the landscape and the resultant changes to the experience of landscape character.
- 6.6.28. It is acknowledged that there may be more elevated areas where ground-level elements may be visible, and these are considered within the assessment where relevant.
- 6.6.29. It is noted that in general, the magnitude of change in landscape character would incrementally decrease with distance from the turbines as they become gradually less prominent.
- 6.6.30. A summary of the effects on landscape character during operation is presented in **Table 6.5: Assessment of Effects on Landscape Character during Operation**. Note that for all character types stated within this table, the duration of the Proposed Development is considered to be long-term and reversible.

NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit)

- 6.6.31. There are several tracts of this LCT within the 20km detailed study area. These include an area which covers the landscape to the east of the Dryfe Water valley, extending south-eastwards across Corrie Common and beyond towards Grange Fell.
- 6.6.32. The Proposed Development (including all turbines) is located within this tract of the LCT. Views from this LCT are broadly represented by Viewpoints 3 – Minor road, Stobohill Cottage; 6 – Corrie Common; 7 – Rangecastle Hill and 16 – B723, north-east of Boreland (see **Volume 3b**).
- 6.6.33. With reference to **Figure 6.27**, which shows landscape character types within 20km overlaid with the blade tip ZTV, there is extensive theoretical visibility of up to all 6no. turbines across the majority of the upland where the Proposed



Development would be located. Actual visibility would however be reduced slightly due to the woodland which covers sections of the landscape, particular to the north-east of the turbines.

- 6.6.34. The Proposed Development would introduce direct effects on the LCT in the immediate vicinity of the Site and indirect effects on the remaining parts of the LCT. The 6no. turbines would introduce tall vertical structures that would extend up to 200m to blade tip. The turbines would however be introduced into a large-scale, open upland landscape, the characteristics of which, such as its smooth, gently rounded profile and simple land cover, are often considered suitable for wind farm development.
- 6.6.35. Referring to the representative viewpoints (Viewpoints 3, 6, 17 and 16) it is inevitable that the turbines have a characterising effect, in particular in the immediate environs of the Site, but the effect is not so great that the turbines become the single-most dominant characteristic, and the distinctive underlying upland landscape remains as the most important defining characteristic element.
- 6.6.36. The Proposed Development would introduce a notable change to the character of the Site and its immediate surroundings up to 4km, resulting in a high magnitude of change and a **major**, therefore, **significant effect**. Beyond 4km, and up to around 6km, the influence of the turbines would decrease, and the magnitude of change would reduce to medium and result in a **major/moderate**, therefore, **significant effect**. Beyond 6km, the influence would further reduce, down to no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.
- 6.6.37. On the opposite side of the Dryfe Water valley lies another tract of the LCT, which covers an area of the landscape encompassing Broomhillbank Hill up towards Fingland Fell. With reference to **Figure 6.27**, which shows landscape character types within 20km overlaid with the blade tip ZTV, there is much less theoretical visibility of the 6no. turbines across this tract of the LCT, particularly beyond around 6km from the Proposed Development, with much of Blaze Hill and Fingland Fell also covered by woodland which would further restrict the potential for impacts to landscape character.
- 6.6.38. Nonetheless, as with the tract of the LCT in which the Proposed Development is located on the opposite side of the valley, the Proposed Development would introduce a notable change to the character of this part of the LCT up to 4km, resulting in a high magnitude of change and a **major**, therefore, **significant effect**. Beyond 4km, and up to around 6km, the influence of the turbines would decrease, and the magnitude of change would reduce to medium and result in a **major/moderate**, therefore, **significant effect**. Beyond 6km, the influence would further reduce, down to no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.
- 6.6.39. A further tract of the LCT lies further to the north-west, beyond the A701, close to the Minnygap Wind Farm. The area lies over 10km from the Proposed



Development and at this distance there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.

NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit)

- 6.6.40. There are several tracts of this LCT within the 20km detailed study area. These include an area which covers the landscape to the south of the tract of the Foothills LCT in which the Proposed Development is located and to the east of the Dryfe Water valley, extending southwards across Newfield Moor and beyond to include The Hass, to the east of Lockerbie, and further south towards Burnswark Hill.
- 6.6.41. Views from this tract of the LCT are represented by Viewpoints 2 – Balgrayhill; 9 - B7068, Bankshill; 12 - Burnswark Hill Fort and 17 - Footpath, east of Lockerbie (see **Volume 3b**).
- 6.6.42. With reference to **Figure 6.27**, which illustrates landscape character types within 20km overlaid with the blade tip ZTV, the majority of this tract of the LCT would experience theoretical visibility of up to all 6no. turbines up to around 10km. The exception being parts of the Water of Milk valley to the east of Lockerbie, and an area close to Lockerbie where potential visibility is screened by the higher ground around The Hass and Crofthead Hill.
- 6.6.43. The Proposed Development would introduce a notable change to the character of this tract of the LCT up to 4km, resulting in a high magnitude of change and a **major**, therefore, **significant effect**. Beyond 4km, and up to around 6km, the influence of the turbines would decrease, and the magnitude of change would reduce to medium and result in a **major/moderate**, therefore, **significant effect**. Beyond 6km, the influence would further reduce, down to no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.
- 6.6.44. A further tract of the LCT lies further to the south-west, beyond the Annandale valley, close to Torthowald. The area lies over 12km from the Proposed Development and at this distance there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.

NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit)

- 6.6.45. This LCT is situated to the west and north of the tract of the Foothills LCT where the Proposed Development is located. Views from this LCT are represented by View Points (VP) 1 – B723, Croftfoot; 4 – B723, Sibbaldbie and 5 – Boreland (see **Volume 3b**).
- 6.6.46. With reference to **Figure 6.27**, which illustrates landscape character types within 20km overlaid with the blade tip ZTV, parts of the LCT would experience theoretical visibility of up to all 6no. turbines, however the visibility would be reduced for the lowest lying parts of the LCT, including much of the area around Berryscaur and Boreland, as well as part of the landscape around Sibbaldbie. This



is further illustrated with regard to the hub height ZTV at **Figure 6.22**, which shows the limited extent of turbine hub visibility from much of the Dryfe Water valley.

- 6.6.47. The Proposed Development would introduce a notable change to a limited part of the LCT, such as in the vicinity of VP 1, where all 6no. turbines would be visible to some degree on the hillside that forms the visual backdrop to the LCT in views to the south-east. In these areas there would be a high magnitude of change and a **major**, therefore, **significant effect**. However, for much of the LCT the impact would be much less, with turbines screened to a greater degree by topography and vegetation, as illustrated by VPs 4 and 5. In these areas there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.

NatureScot LCT 163: Middle Dale - Dumfries & Galloway / DGWLCS LCT 7 Middle Dale (Mid Annandale unit) and DGWLCS LCT 7a Middle Dale with Hills

- 6.6.48. There are two tracts of this LCT or its 'with Hills' sub-type within the 20km detailed study area. These include a large tract of the Annandale landscape to the west of the Proposed Development, which extends from just to the north of Lochmaben as far as Moffat. Views from this tract of the LCT are represented by Viewpoints 10 - Annandale Way, Lochbrow; and 11 - B7020, Annadale Way (see **Volume 3b**).
- 6.6.49. With reference to **Figure 6.27**, which illustrates landscape character types within 20km overlaid with the blade tip ZTV, the majority of the LCT would experience theoretical visibility of up to all 6no. turbines, however parts of the tract of the LCT extend to over 20km from the Proposed Development which would serve to limit the potential for any impacts. The closest point of the tract of the LCT lies around 4km away, however, this part of the landscape is immediately adjacent to the Steven's Croft Power Station and the A74(M) which serves to reduce its sensitivity. VPs 10 and 11, which are located around 7-8km from the Proposed Development are more typical of the landscape of the LCT and illustrate the extent to which the Proposed Development would be seen on the elevated ground in views to the east.
- 6.6.50. Overall, there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect, reducing to a low magnitude and a minor effect towards the more distant extents of the LCT.
- 6.6.51. The 'with Hills' sub-type of the LCT, identified by the DGWLCS, is located around 8-14km to the south-southwest of the Site and covers the area around Birkshaw Forest, Kettleholm and Castlemillk. With reference to **Figure 6.27**, which illustrates landscape character types within 20km overlaid with the blade tip ZTV, the majority of the LCT would experience theoretical visibility of up to all 6no. turbines, however much of the area is covered by woodland which would limit the potential for impacts to landscape character. Overall, there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.

NatureScot LCT 162: Lower Dale - Dumfries & Galloway / DGWLCS LCT 6 Lower Dale (Lower Annandale unit)



- 6.6.52. This LCT covers the lower part of the Annandale valley landscape to the west of Lockerbie, including the area around Lochmaben. Views from this tract of the LCT are represented by VPs 8 - Lockerbie and 13 - A709 west of Lockerbie (bridge over River Annan). With reference to **Figure 6.27**, which illustrates landscape character types within 20km overlaid with the blade tip ZTV, the majority of the LCT would experience theoretical visibility of up to all 6no. turbines, however, the closest part of the LCT to the Proposed Development is over 5km and it extends to over 12km. The closest part of the LCT to the Proposed Development is the area to the immediate west of Lockerbie, which is influenced by built development and the A74(M) which serves to reduce its sensitivity. This area also has the potential for limited visibility of the Proposed Development due to screening by topography and vegetation, as illustrated by VP8. VP13, which is located around 9km from the Proposed Development is more typical of the landscape of the LCT and illustrates the extent to which the Proposed Development would be seen on the elevated ground in views to the north-east.
- 6.6.53. Overall, there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect, reducing to a low magnitude and a minor effect towards the more distant extents of the LCT.
- 6.6.54. A summary table of the effects on landscape character types during operation is provided below at **Table 6.5: Assessment of Effects on Landscape Character during Operation**.

Table 6.5: Assessment of Effects on Landscape Character during Operation

Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit)	High	High (up to 4km) Medium (between 4km and 6km) Low (beyond 6km)	Major (up to 4km) Major/ Moderate (between 4km and 6km) Moderate (beyond 6km)	Yes (up to 6km)
NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit)	High	High (up to 4km) Medium (between 4km and 6km) Low (beyond 6km)	Major (up to 4km) Major/ Moderate (between 4km and 6km) Moderate (beyond 6km)	Yes (up to 6km)



Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit)	High	High (small tracts of the LCT) Medium/ Low (the majority of the LCT)	Major (small tracts of the LCT) Moderate (the majority of the LCT)	Yes (small tracts of the LCT)
NatureScot LCT 163: Middle Dale - Dumfries & Galloway / DGWLCS LCT 7 Middle Dale (Mid Annandale unit) and DGWLCS LCT 7a Middle Dale with Hills	High	Medium /Low	Moderate	No
NatureScot LCT 162: Lower Dale - Dumfries & Galloway / DGWLCS LCT 6 Lower Dale (Lower Annandale unit)	High	Medium /Low	Moderate	No

Assessment of Visual Effects

6.6.55. Effects on visual amenity arise from changes to views resulting from the introduction of the Proposed Development. It comprises:

- An assessment of visual effects from the representative viewpoints brought forward into detailed assessment; and
- An assessment of visual effects on receptor groups such as settlements, roads and railways, recreational routes, core paths, and recreational and tourism locations brought forward into detailed assessment.

6.6.56. The assessment of visual effects has been carried out through a combination of site visits and desk study using the ZTVs, wirelines, and photomontages.

6.6.57. In accordance with Civil Aviation Authority (CAA) CAP 764²⁹, turbines taller than 150m require visible aviation lighting. A final visible aviation lighting design has yet to be prepared for the Proposed Development. However, it is assumed for the purpose of this assessment that as a worst-case all six of the would be fitted with visible red 2000/200cd lights on the nacelle of each turbine. These would operate in the reduced 200cd intensity where meteorological visibility is greater than 5km. It is important to highlight that, when not obscured by cloud, the visibility in the area of the turbines can be expected to exceed 5km for the majority of the time and as such, the lights would be dimmed to 200cd. Narrow beam lighting is also to be used to ensure that light is directed towards approaching aircraft and not

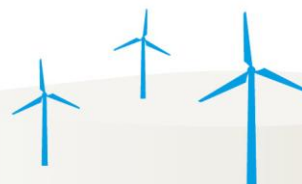
²⁹ Civil Aviation Authority. Civil Aviation Publication (CAP) 764 Policy and Guidance on Wind Turbines Version 6 (2016).



towards receptors at higher or lower elevations. It is also proposed that there would be no requirement for intermediate lighting to be installed halfway between the nacelle and the ground-level.

6.6.58. In order to carry out an assessment of the effects of visible aviation lighting the following assumptions have been made and applied in the figures and visualisations that have informed the assessment:

- Steady state visible aviation lighting is shown on all six turbines.
- No intermediate lighting is illustrated halfway between the nacelle and the ground-level.
- As the photography was taken in clear weather conditions, when visibility was greater than 5km, the visualisations illustrate the reduced 200cd intensity to reflect the lighting that would arise in those conditions as a result of the mitigation proposed. It is understood that these images nonetheless represent the worst-case situation as should visibility be less than 5km such that the 2000cd lighting was active, then these poor conditions would of themselves be such as to restrict the visibility of the lighting to no more than that of the 200cd lighting seen in clear conditions.
- The reduction in the intensity of lights above and below the horizontal has been illustrated on **Figure 6.7.1, in Appendix 6.7**. This ZTV shows the theoretical reduction in the candela intensity of the lights at vertical angles above and below the horizontal to illustrate the reduction in the intensity of the lights at elevations below the level of the turbine lights.
- Whilst the lighting would reduce in intensity above and below the horizontal, this reduction has not been illustrated in the night-time visualisations. As such the visualisations are worst-case. This matter has however been considered within the assessment judgements.
- The visualisations illustrate the period after the commencement of Evening Civil Twilight, when sufficient ambient light remains for the landform of the landscape on which the wind farm is proposed, to remain partially visible. The assessment also focuses on this period, which represents a 'worst-case'.
- It is noted that the matter of darkness adaption is also a relevant consideration, with some receptors, in particular car drivers, not perceiving the lighting in the same manner as if they were in a fully dark environment, due to their vision being influenced by lighting sources in their proximity (i.e. car headlights). The same would apply to residents of residential properties who were viewing the aviation lighting from a location with existing lighting present (i.e. it is unlikely that residents would themselves be in a fully dark environment and their eyes



therefore adapted to take in the full extent of the light from the turbines). This serves to further reduce the effects compared to how they are set out in the assessment, which again can be considered to represent a 'worst-case' position compared to what would be experienced by many of the receptors in practice.

- The frequency in which a viewpoint is likely to be visited during the hours of darkness is not a factor which is considered within the assessment of magnitude or sensitivity. It should be noted however that viewpoints at hills summits and on long-distance footpaths would be unlikely to be visited after daylight hours. Any assessment of these receptors should therefore be considered a 'worst-case' scenario as in many cases the actual numbers of individuals who would be likely to experience the view would be very limited; although, it is recognised that there would be a few individuals such as landscape photographers who may visit hilltops to take photographs at sunset or sunrise or people star gazing.

6.6.59. Further details about the approach and the methodology to the assessment of visible aviation lighting are set out in **Appendix 6.7: Assessment of Night-time Lighting: Assessment Criteria and Methodology**.

Construction Effects

- 6.6.60. Construction activities associated with the Proposed Development would be screened from large portions of the study area. Activities would however be visible from elevated locations that allow views towards where the Proposed Development is located. In the majority of locations however, the additional visual effects, over and above those addressed under the heading of Operational Effects, would principally relate to views of the cranes erecting the turbines.
- 6.6.61. The cranes would be visible for a relatively short period and would be incidental when considered in the context of the turbines being erected. Any views of these works are assessed as resulting in a low magnitude of additional change at most and no greater than a **Moderate**, temporary effect which would be not significant.
- 6.6.62. From a limited number of more elevated locations within relative proximity of the Proposed Development there may be views of construction activities and vehicular movements, in addition to the views of the cranes used to install the turbines. In these locations, there would be a medium magnitude of additional change which would similarly result in a **Moderate**, temporary effect during the construction phase which would be not significant.



Operational Effects

- 6.6.63. A detailed viewpoint assessment of the operational effects is presented at **Appendix 6.5: Viewpoint Assessment**, and this considers the long-term visual effects during the operational phase of the Proposed Development for each of the 17no. viewpoint locations.
- 6.6.64. For each of the assessment viewpoints, a short description is given of the baseline view, and a judgement is provided regarding the sensitivity of the key receptors likely to experience the view.
- 6.6.65. This is followed by a description of the features of the Proposed Development that would be visible from that viewpoint. This includes a description of how many turbine hubs and blades would be visible and also, where relevant, whether any ground-level components of the Proposed Development would be visible. For each viewpoint, there is a comment on how vegetation or topography would affect actual visibility of the proposed turbines.
- 6.6.66. A judgement is then provided of the magnitude of change that would be experienced at each viewpoint, the level of the effect on the view, with a statement provided to clarify whether the additional effect resulting from the Proposed Development would be significant or not.
- 6.6.67. A summary of the sensitivity of the view, magnitude of change in the view, the level of effect and its significance is given in **Table 6.6: Assessment of Effects on Viewpoints during Operation**. A copy of the table is also included in **Appendix 6.5: Viewpoint Assessment**.
- 6.6.68. Where a viewpoint is representative of more than one type of visual receptor, the assessment carried forward into the table represents the most sensitive receptor group represented by the viewpoint.
- 6.6.69. With reference to the Viewpoint Assessment at **Appendix 6.5**, when considered against the existing baseline, it has been assessed that there would be a significant visual effect at 6no. of the 17no. representative viewpoints during daylight hours. These are as follows:
- Viewpoint 1: B723, Croftfoot.
 - Viewpoint 2: Balgrayhill.
 - Viewpoint 3: Minor road, Stobohill Cottage.
 - Viewpoint 6: Corrie Common.
 - Viewpoint 7: Rangecastle Hill
 - Viewpoint 16: B723, north-east of Boreland.



6.6.70. It was further assessed that during the hours of darkness there would be a significant visual effect at 5no. of the 17no. representative viewpoints. These are as follows:

- Viewpoint 1: B723, Croftfoot.
- Viewpoint 2: Balgrayhill.
- Viewpoint 3: Minor road, Stobohill Cottage.
- Viewpoint 6: Corrie Common.
- Viewpoint 16: B723, north-east of Boreland.



Table 6.6: Assessment of Effects on Viewpoints during Operation

		Daylight Hours			Darkness Hours		
Viewpoints	Sensitivity	Magnitude of Change	Level of Effect	Significant	Magnitude of Change	Level of Effect	Significant
1 - B723, Croftfoot	High	High	Major	Yes	Medium	Moderate	Yes
2 - Balgrayhill	Medium	High	Major	Yes	Medium	Moderate	Yes
3 - Minor road, Stobohill Cottage	High	High	Major	Yes	Medium	Moderate	Yes
4 - B723, Sibbaldbie	High	Low	Moderate/ minor	No	None	No Effect	No
5 - Boreland	High	Low	Moderate/ minor	No	None	No Effect	No
6 – Corrie Common	High	High- Medium	Moderate	Yes	Medium	Moderate	Yes
7 - Rangecastle Hill	High	Medium	Moderate	Yes	Medium - low	Moderate - minor	No
8 - Lockerbie	Medium	Low	Minor	No	Very low	Minor/ negligible	No
9 - B7068, Bankshill	High	Medium	Moderate	No	Medium - low	Moderate - minor	No
10 - Annandale Way, Lochbrow	High	Medium - low	Moderate/ minor	No	Low	Minor	No
11 - B7020, Annadale Way	High	Medium - low	Moderate/ minor	No	Low	Minor	No
12 - Burnswark Hill Fort	High	Medium - low	Moderate/ minor	No	Low	Minor	No
13 - A709 west of Lockerbie (bridge over River Annan)	Medium	Medium - low	Moderate/ minor	No	Low	Minor	No
14 - Romans & Reivers	High	Low	Minor	No	Very low	Minor/ negligible	No
15 - Southern Upland Way	High	Low	Minor	No	Very low	Minor/ negligible	No
16 - B723, north-east of Boreland	Medium	High- Medium	Moderate	Yes	Medium	Moderate	Yes
17 - Footpath, east of Lockerbie	High	Medium - low	Moderate/ minor	No	Very low	Minor/ negligible	No

Assessment of Effects on Principal Visual Receptor Groups

- 6.6.71. This section considers the effects of the Proposed Development on the visual receptor groups brought forward into detailed assessment (see **Appendix 6.4: Preliminary Assessment of Visual Receptors** for details). Principal visual receptors are illustrated on **Figure 6.6**, with **Figure 6.24** illustrating the blade tip ZTV overlaid over the visual receptors located within the detailed 20km LVIA study area.

Construction Effects on Visual Receptor Groups

- 6.6.72. It is recognised that there would be some additional temporary visual effects during the construction phase of the Proposed Development over and above those assessed under the operational phase.
- 6.6.73. The vast majority of noteworthy visual effects would be experienced within the local environs of the Site, with views from wider distances being commonly constrained by intervening landform and vegetation including plantation forestry and woodland.
- 6.6.74. The construction works would be visible from a number of properties within the local landscape; however, views of the construction phase would largely be restricted to views of cranes appearing above intervening landform and vegetation. Ground-level components and activities would primarily be screened from view. These views would only be experienced for a relatively short duration during the construction phase, and within the context of the proposed turbines being constructed.
- 6.6.75. The cranes would be visible for a relatively short period and would be incidental when considered in the context of the turbines being erected. Overall, it is assessed that there would be a low magnitude of additional effect at most during construction over and above the operational phase effects assessed below. This would result in a **Moderate**, temporary effect which would be not significant, and these effects need to be considered in conjunction with the operational effects identified below.

Operational Effects on Visual Receptor Groups

- 6.6.76. Views of ground-level components and activities associated with the Proposed Development would be limited to a relatively short radius around the Site and/or experienced from receptors at elevated locations which allow views onto the upland where the Proposed Development is located. Except where indicated, the discussion below therefore relates primarily to views of the proposed turbines.

Residential Receptors

- *Residential Properties within 2km*

- 6.6.77. All properties located within a 2km distance of a proposed turbine have been assessed in detail within the Residential Visual Amenity Study at **Appendix 6.6: Residential Visual Amenity Assessment (RVAA)** and illustrated on **Figure 6.6.1: Residential Visual Amenity Study Properties**.
- 6.6.78. In summary, of the properties within 2km assessed in detail, 15 would experience a significant visual effect from either a part of their house, garden, or principal access route. For the majority of properties within 2km however the effect would not be significant.
- 6.6.79. It is concluded that when the experience from each property is considered in the round, none of the residents of any property would experience such an overbearing or overwhelming effect on their visual amenity that their properties would become unattractive places in which to live.
- 6.6.80. The settlement of Sibbaldbie also lies primarily within 2km of the Proposed Development. Views from the settlement are represented by VP4, taken from the B723, where only two blade tips would be theoretically visible, however it is acknowledged that the visibility of the Proposed Development does vary across the settlement, with some areas having no visibility at all. Viewpoint 4 does give a useful indication of the extent to which the turbines would be set back into the upland landscape above the settlement, such that the potential for visual impacts is notably reduced. This is also illustrated with regard to the hub height ZTV at **Figure 6.22**, which shows the limited extent of turbine hub visibility from the settlement. The properties with the greatest potential for impacts within the settlement have been addressed in detail as part of the RVAA and with regard to the findings set out above, there would be no greater than a moderate - minor effect on visual amenity within Sibbaldbie, either from within individual residential properties, or as people move around the settlement on foot or by vehicle.

- *Residential Properties within 2km to 5km*

- 6.6.81. Between 2km and 5km of the proposed turbines, there are numerous residential properties scattered throughout the surrounding landscape comprised of individual farmsteads and small clusters of properties. Many of the properties are located along the B723, or minor roads in the local landscape. The village of Boreland is located around 3km to the north of the Site and Corrie Common lies around 4km to the south-east.
- 6.6.82. Views from Boreland are illustrated by VP5, which demonstrates that whilst there is theoretical visibility from the village on the ZTVs in reality any potential for views would be notably limited by intervening topography and vegetation. Indeed, from much of the settlement there would be no potential for views of the Proposed Development. Where visibility is possible, this would be of no



more than glimpses of the turbine blades, which would give rise to no greater than a Low magnitude of change and a Moderate/ minor effect.

- 6.6.83. Views from Corrie Common are illustrated by VP6, which illustrates the potential for visibility of all 6 of the turbines at a distance of around 3.5km. The Proposed Development would be seen as part of a wide panoramic view to the north-west, across the upland foothills landscape. The turbines would be a noticeable element of the view, which would result in a medium-high magnitude of change and a **moderate, significant**, visual effect.
- 6.6.84. Many of the properties which are located along the B723, as it passes through the Dryfe Water valley, would have no potential visibility of the turbines due to their low lying nature within the valley. There are however several individual properties, located outside of the settlements discussed above, both in the Dryfe Water valley and the wider landscape up to 5km, which would have potential visibility of the turbines. Whilst intervening landform and vegetation, including forestry and woodland, and property boundary walls, gardens with associated vegetation, and surrounding agricultural buildings, trees, and woodland, may obscure or limit actual visibility of the proposed turbines, the default expectation is that the proposed turbines would be visible.
- 6.6.85. Due to the proximity of the Proposed Development to the properties, the magnitude of change is assessed as medium at most, resulting in a **moderate** level of effect on the visual amenity experienced, which is considered to be significant for those relatively limited number of properties which would have a clear open view towards the turbines.

- *Settlements beyond 5km*

- 6.6.86. The following assessment focuses on Lochmaben which was the only settlement beyond 5km of the Proposed Development identified in the filtering exercise at **Appendix 6.4: Preliminary Assessment of Visual Receptors** as having the potential to experience significant effects.
- 6.6.87. Lochmaben is located around 9km to the south-west of the Proposed Development. The hub height ZTV at **Figure 6.22**, shows the potential for turbine hub visibility from the majority settlement, albeit that in reality for most properties' views would be screened by other intervening buildings or vegetation, with one a small number of properties on the eastern extent of the settlement having the potential for views. VPs 11 and 13 are broadly representative of the scale and nature of the views from Lochmaben and illustrate that the turbines would be seen within the upland landscape above the Annandale valley. In the context of the overall scale and nature of the views there would be no greater than a Medium – low magnitude on views from Lochmaben and a moderate/minor effect.



Effects on Core Paths

- 6.6.88. The following assessment focuses on those core paths and routes identified in the filtering exercise at **Appendix 6.4: Preliminary Assessment of Visual Receptors** as having the potential to experience significant effects.
- 6.6.89. In accordance with the methodology set out in **Appendix 6.1: Landscape and Visual Impact Assessment Criteria**, the sensitivity of users of public rights of way can vary between medium and very high depending on the reason for which they are using the route.
- *NORT/312 - Boreland to SUW*
- 6.6.90. This route runs to the north of the Proposed Development. It extends between Boreland, where at its closest point it runs around 3km from the Proposed Development to the Southern Upland Way, around 11km to the north. There would be no potential for visual effects on users of the route travelling northwards, as the Proposed Development would be behind them.
- 6.6.91. The potential for effects is therefore limited to those travelling southwards, towards Boreland. However, with reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that much of the route would lie outside of the area with potential visibility of the Proposed Development, due to the screening effect of intervening topography. Furthermore, for those areas where potential visibility is illustrated, in reality this would be notably reduced by vegetation in the landscape, in particular for the southernmost section of the route, as it runs along a minor road in the Dryfe Water valley. Overall, there would be no potential for more than limited glimpses of the turbines and no greater than a low magnitude of change and a Moderate/minor effect.
- *NORT/309 - Corrie Common to Hart Fell Loop*
- 6.6.92. This route runs to the east of the Proposed Development. It extends between Corrie Common, where at its closest point it runs around 4km from the Proposed Development to the lower slopes of Hart Fell to the north-east, covering a distance of around 4km. There would be no potential for visual effects on users of the majority of the route as it runs within commercial forestry plantations, albeit these are subject to a rotational felling pattern that may have the potential to open up views across the lifetime of the Proposed Development.
- 6.6.93. Where the route runs out with the plantations, primarily as it first leaves Corrie Common, the slightly lower lying ground would initially serve to screen views of the Proposed Development, however visibility would be possible after a few hundred metres, at which point the Proposed Development would be seen as part of a wide panoramic view to the north-west, across the upland foothills landscape. The turbines would be a noticeable element of the view, which would result in a medium-high magnitude of change and a **moderate**,



significant, visual effect over a short section before the route enters the plantation.

- *LOCW/285 - Mainshill to the Hass*

- 6.6.94. This route runs to the south of the Proposed Development. It extends between the Hass, where at its closest point it runs around 5km from the Proposed Development, to the B7068, around 1.5km to its south, passing over Lamb Hill and Mounthoolie. There would be no potential for visual effects on users of the route travelling southwards, as the Proposed Development would be behind them. Furthermore, with reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that much of the route would lie outside of the area with potential visibility of the Proposed Development due to the screening effect of the nearby Quhytewoollen Hill.
- 6.6.95. Some limited visibility would be available to northbound users of the route however, as illustrated by VP17. From this short section of the route in the vicinity of Mounthoolie there would be no greater than a medium magnitude of change and a moderate, non-significant visual effect.

- *NORT/311 - Thundergarth to Hazelberry Hill / NORT/313 - Hazelberry to Burnswark / HODD/259 - Burnswark Circular*

- 6.6.96. These routes link with one another to comprise a network which runs from the B7068 around the lower slopes of Burnswark Hill. At their closest point, where they leave the B7068, they run around 7km to the south of the Proposed Development, extending to around 11km from the Proposed Development. The majority of the routes would have potential for visibility of the Proposed Development, but only in northwards views, such that those travelling southwards from the B7068 towards Burnswark Hill would have no view of the Proposed Development.
- 6.6.97. VP12 illustrates the view from Burnswark Hill and whilst is from a more elevated point in the landscape than the footpath network, which does not go to the summit, provides a good representation of the visibility of the Proposed Development in views looking northwards from the routes. There would be no greater than a medium-low magnitude and a moderate-minor visual effect on users of the routes.

6.6.1.1 Effects on Recreational Routes

- 6.6.98. The following assessment focuses on the Annandale Way, which was the only recreational route identified in the filtering exercise at **Appendix 6.4: Preliminary Assessment of Visual Receptors** as having the potential to experience significant effects.
- 6.6.99. In accordance with the methodology set out in **Appendix 6.1: Landscape and Visual Impact Assessment Criteria**, the sensitivity of users of long distance or recreational trails is considered to be high.



- 6.6.100. The Annandale Way, follows the river Annan from source to sea, running for around 40 miles between the Devil's Beef Tub, to the north of Moffat, to the Solway Firth at the Barnkirk headland. It has two potential routes, passing through either Lochmaben (the western option) or Lockerbie (the eastern option). At its closest point, the eastern option of the route runs around 6km to the south-west of the Proposed Development.
- 6.6.101. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that much of the route would have the potential for visibility of the Proposed Development, albeit much of the route runs at a distance of over 10km. VPs 10 and 11 do however illustrate the section of the route within 10km which has the greatest potential for visibility of the Proposed Development as the route passes through the lower lying landscape to the west of the foothill landscape in which the turbines would be located. Here the Proposed Development would be a noticeable element of the view at a distance between around 7km and 9km, but in the context of the broad open views would give rise to no greater than a medium to low magnitude and a moderate-minor visual effect.
- 6.6.102. As the route runs at distances of over 10km from the Proposed Development, such as at VP15, where the Annandale Way briefly follows the same route as the Southern Upland Way, the magnitude would further decrease to low, with no more than a minor visual effect.

6.6.1.2 Effects on Roads and Railways

- 6.6.103. The following assessment focuses on those roads and railways identified in the filtering exercise at **Appendix 6.4: Preliminary Assessment of Visual Receptors** as having the potential to experience significant effects.
- 6.6.104. In accordance with the methodology set out in **Appendix 6.1: Landscape and Visual Impact Assessment Criteria**, the sensitivity of users of roads and railways can vary between medium and very high depending on the reason for which they are using the route. In this case the roads and railways were considered to be of medium sensitivity.

- A74(M)

- 6.6.105. The A74(M) passes around 5km to the west of the Site at its closest point. It runs on a broadly north-south alignment between Lockerbie and Glasgow and a north-west to south-east alignment between Lockerbie and the English border. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that parts of the route would have the potential for theoretical visibility of the Proposed Development, including the section closest to the Proposed Development as the route runs to the north of Lockerbie. Along this section any potential views would be primarily applicable to northbound users of the route, more so than southbound users, who would generally only experience longer distance views of the Proposed Development



from a section north of Junction 16, beyond 10km from the Proposed Development.

- 6.6.106. From the section to the north of Lockerbie, northbound users would have some potential for views of the Proposed Development, seen to the east of the road, as part of the high ground of the foothills. However, extensive roadside vegetation and embankments would serve to limit the potential visibility to much less than is indicated on the ZTV. Overall, there would be no greater than a low magnitude of change and a minor visual effect on users of this section of the A74(M), or users travelling southbound with longer distance views from around 10km to the north of the Proposed Development.

- **A709**

- 6.6.107. The A709 runs around 7km to the south of the Site at its closest point as it runs between Lockerbie and Dumfries. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that the majority of the route would have the potential for theoretical visibility of the Proposed Development. There would however be no potential for visual effects on users of the route travelling westwards from Lockerbie towards Dumfries, as the Proposed Development would be behind them.

- 6.6.108. VP13 is located on this section of the A709, at a distance of around 9km, and provides a good illustration of the potential views for eastbound users of the route as they look north-eastwards across the Annandale valley towards the foothills beyond. There would be no more than a medium-low magnitude and a moderate-minor effect on eastbound users of the A709.

- **B723**

- 6.6.109. The B723 runs between Annan and Lockerbie and then on to Eskdalemuir. At its closest point it runs around 2km to the west of the Site as it passes through the Dryfe Water Valley near Sibbaldie. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that the majority of the route between Lockerbie and Fenton Yet would have the potential for theoretical visibility of the Proposed Development. However, the visibility would be reduced for parts of the road, including as it passes through Berryscaur and Boreland, as well as around Sibbaldie. This is further illustrated with regard to the hub height ZTV at **Figure 6.22**, which shows the limited extent of turbine hub visibility from much of the Dryfe Water valley.

- 6.6.110. The Proposed Development would however introduce a notable change to views from a limited section of this part of the B723, such as in the vicinity of VP1, where for southbound users only, all 6no. turbines would be visible to some degree on the hillside that forms the visual backdrop to the route in views to the south-east. Similarly, in the vicinity of VP17, where again for southbound users only, all 6no. turbines would be visible.



- 6.6.111. In these sections there would be a high (near VP1) or medium-high (near VP16) magnitude of change and a **major-moderate**, therefore, **significant effect**. However, for much of this section of the route the impact would be much less, with turbines screened to a greater degree by topography and vegetation, as illustrated by VPs 4 and 5. In these sections there would be no more than a medium to low magnitude, resulting in no more than a **moderate**, but non-significant effect.
- 6.6.112. Between Fenton Yet and Eskdalemuir theoretical visibility is notably reduced by intervening landform, and this would be further limited by plantation forestry in this area. There would be no greater than a low magnitude and a minor effect on this section of the route, which would apply only to southbound users.
- 6.6.113. Between Annan and Lockerbie visibility of the Proposed Development would only be available to northbound users. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that large parts of this section of the route would have no theoretical visibility, including the section closest to Lockerbie, once the route crosses over the A74(M). Furthermore, actual visibility would from those sections of the route which lie within the ZTV would be notably limited due to extensive roadside vegetation, which combined with the distance from the Proposed Development of around 10km or greater would result in no more than a low magnitude and a minor effect.
- [B7076](#)
- 6.6.114. The B7076 runs around 5km to the west of the Site at its closest point. For much of its length the route runs immediately adjacent to the A74(M) and would experience the same screening of potential views by the extensive vegetation as the motorway, such as where the route passes the Steven's Croft Power Station. VP8 is located along the B7076 and further illustrates the largely limited potential for visibility of the Proposed Development from the route. Overall, there would be no greater than a low magnitude of change and a minor visual effect on users of the B7076.
- [B7068](#)
- 6.6.115. The B7068 runs around 6km to the south of the Site at its closest point as it runs between Lockerbie and Langholm. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that the majority of the route between Lockerbie and Paddockhole would have theoretical visibility of the Proposed Development, with limited potential visibility between Paddockhole and Langholm. VP9 is located on the section of the B7068 with potential visibility of the Proposed Development, near Bankshill, and illustrates there would be no greater than a medium magnitude of change and a moderate, non-significant effect on users of the route, where open views are available to the north. However, for parts of the route these views would be unavailable due to screening by intervening roadside vegetation.



- *B7020*

6.6.116. The B7020 runs around 8km to the west of the Site at its closest point as it runs between Lochmaben and the A701, south of Beattock. A further section of the route also runs southwards from Lochmaben to Annan. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that the majority of the route would have theoretical visibility of the Proposed Development. VP11 is located on the section of the route, just to the north of Lochmaben, at around 8km from the Proposed Development and provides a good illustration the potential visibility from the route. There would be no greater than a medium to low magnitude and a moderate-minor effect on users of the B7020 on its section through the Annandale valley between Lochmaben and the point at which it lies beyond 10km from the Proposed Development. For the section beyond 10km from the Proposed Development to the point where the route joins the A701, and the section between Lochmaben and Annan, there would be no greater than a low magnitude and a minor visual effect.

- *West Coast mainline railway – which runs around 5km to the south-west at its closest point*

6.6.117. The West Coast mainline railway runs around 5km to the south-west at its closest point as it passes between Lockerbie and Glasgow. With reference to **Figure 6.24** the Blade tip ZTV up to 20km with Principal Visual Receptors, it can be seen that some sections of the route would have theoretical visibility of the Proposed Development. This is however likely to be further restricted in reality by vegetation which lines the railway along much of its route. Any potential views would also be primarily applicable to northbound users of the route, more so than southbound users, who would generally only experience longer distance views of the Proposed Development from a section, beyond 10km from the Proposed Development.

6.6.118. From the section to the north of Lockerbie, northbound users would have some potential for views of the Proposed Development for a very brief period, seen to the east of the railway, as part of the high ground of the foothills. Overall, there would be no greater than a low magnitude of change and a minor visual effect on users of this section of the railway, or users travelling southbound with longer distance views from around 10km to the north of the Proposed Development.

Effects on Designated Landscapes

6.6.119. The following assessment focuses on the Torthorwald Ridge RSA, which was the only designated landscape identified in the filtering exercise at **Appendix 6.3: Preliminary Assessment of LCTs Landscape Character Types and Designations** as having the potential to experience significant effects.



6.6.120. The closest point of the Torthorwald Ridge RSA to the Proposed Development is located around 12km to the south-west, with the furthest point being around 18km from the Proposed Development. The RSA covers an area of higher ground which extends for around 20km in a broadly north-west to south-east alignment between Dumfries and Lochmaben. High points in the area include Hightown Hill, Beacon Hill, Hazelshaw Hill and Almagill Hill. With reference to **Figure 6.26**, which shows landscape designations within 20km of the Proposed Development overlaid with the blade tip ZTV, there is theoretical visibility from the north-eastern section of the RSA, with potential visibility from the remaining area screened by topography.

6.6.121. In order to consider the likely effects of the Proposed Development upon the RSA, an understanding of adopted policy context in relation to the designated landscape is necessary. Dumfries and Galloway Local Development Plan 2 Policy NE2: Regional Scenic Areas states:

“The siting and design of development within a Regional Scenic Area should respect the special qualities of the area. Development within, or which affects Regional Scenic Areas, may be supported where the Council is satisfied that:

- *the factors taken into account in designating the area would not be significantly adversely affected; or*
- *there is a specific need for the development at that location”.*

6.6.122. The matter of RSAs is considered within the adopted Local Development Plan 2 Regional Scenic Areas Technical Paper (2018). Policy NE2 sets out that development should respect the special qualities of the RSA; however, the RSA Technical Paper does not set out a definitive list of special qualities in relation to any of the RSAs within Dumfries and Galloway, and further research has also proven unsuccessful in determining both the reasoning behind the original designation of the Torthorwald Ridge, and the special qualities that the landscape affords.

6.6.123. It has therefore been necessary to look to the description of the Galloway Hills as set out within the Regional Scenic Area Technical Paper and derive the special qualities and reason for designation from the prose stated on page 31.

6.6.124. It is understood that the following factors form the relevant considerations for the purposes of this LVIA in relation to the Proposed Development and its location:

- *‘a predominantly open feel, particularly towards the north and west’.*
- *‘a sense of upland exposure’.*
- *‘interesting local views’.*



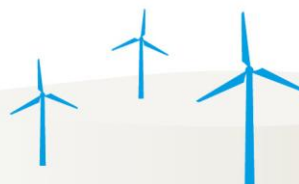
- 6.6.125. The LVIA has already considered effects upon landscape character and visual amenity within the Torthorwald Ridge RSA and a brief summary of the effects is provided below.
- 6.6.126. With regard to visual amenity, at distances of 12km or greater, the Proposed Development would form no more than a minor element of the overall broad panorama of north-easterly views from the RSA. There would be no greater than a medium to low magnitude of change and a moderate-minor effect on visual receptors within the RSA.
- 6.6.127. With regards to landscape character, the RSA is covered by a tract of the NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit). Noting the distance of at least 12km from the Proposed Development a medium to low magnitude of change was identified to the character of the area, resulting in no more than a **moderate**, but non-significant effect.
- 6.6.128. Whilst it is acknowledged that there would be some limited, non-significant effects upon landscape character and visual amenity experienced from part of the RSA, there would be no significant effects upon the special qualities of the Torthorwald Ridge RSA, nor its reason for designation. There would continue to be *“a predominantly open feel, particularly towards the north and west”* and *“a sense of upland exposure”*. The *“interesting local views”* would also be retained, noting that views looking southwards from the RSA towards the Solway Firth would be in the opposite direction to that of the Proposed Development.

6.7 Mitigation

- 6.7.1. As discussed in best practice guidance for EIA, mitigation measures may include:
- Avoidance of effects.
 - Reduction in magnitude of effects; and
 - Compensation for effects (which may include enhancements to offset any adverse effects).
- 6.7.2. The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. This is sometimes referred to as ‘mitigation by design.’ A detailed discussion of the design evolution and the iterative process underpinning it is provided in **Chapter 2: Site Selection and Design Evolution**. Design evolution is summarised below, in so far, as landscape and visual matters have influenced the Proposed Development.



- 6.7.3. The EIA Scoping layout was based on 7. turbines with blade tip heights up to 230m. The layout then progressed through a series of iterations based upon landscape and visual and other technical and environmental considerations. Further reducing potential impacts to visual amenity and landscape character was a key consideration as part of this process, with a turbine removed and turbines reduced in height.
- 6.7.4. Consideration was also given to the Proposed Development in this location, its relationship with other constructed and consented wind farms in the locality, and the capacity of the receiving landscape to accommodate further wind farm development.
- 6.7.5. Based on general good practice design principles (as set out in NatureScot guidelines) and an analysis of site-specific opportunities and constraints, the wind farm layout has evolved to take into consideration a number of landscape and visual constraints whilst maintaining an optimal development, resulting in the 6turbine layout, 200m to blade tip, which has been taken forward to the EIA phase.
- 6.7.6. A design rationale has been adopted to avoid inconsistent turbine spacing, turbine outliers, or excessive overlapping of turbines, to minimise visual confusion and ensure a balanced/compact array from key views in the local landscape.
- 6.7.7. The above principles have been applied as a number of iterations to the design were made. Taking all other engineering and environmental constraints into account, the final layout of the turbines was specifically designed to achieve a balanced array of turbines when viewed from the surrounding landscape.
- 6.7.8. In considering the layout of other structures and ancillary features of the Proposed Development, the position of the substation, construction compound, battery storage area, and borrow pits are located so as to minimise their influence on the surrounding area.
- 6.7.9. The turbines themselves will be painted an off-white colour with a low reflectivity semi-matt finish (or similar as agreed with Dumfries and Galloway Council). Such a finish is widely regarded to be the least intrusive in the landscape when seen against the sky in a host of weather conditions typically experienced within the UK.
- 6.7.10. Mitigation of visible turbine aviation lighting has been designed into the Proposed Development by avoiding the need for additional visible tower lighting in addition to the hub lighting that is assumed as a worst-case to be fitted to each of the turbines. Visibility sensors would be installed on the turbines to measure the prevailing atmospheric conditions and visibility range. Should atmospheric conditions mean that visibility from the turbines within the Site is greater than 5km from the Proposed Development, CAA policy permits lights to operate in a lower intensity mode, being a minimum of 10% of their capable



illumination. Therefore, the 2000cd steady state lights would operate at 200cd. If visibility is however restricted to 5km or less, the lights would operate at 2,000cd.

- 6.7.11. Additionally, the inherent directional intensity of 2,000cd lights can be used to reduce vertical downwards lighting impacts at elevations less than -1° degree vertical angle from the horizontal plane from the aviation light. By ensuring the lights installed comply with the international Civil Aviation Organization (ICAO) recommendations, it is possible to attenuate the vertical downwards light to a level that reduces the visual impact from receptors at ground levels below the lights. Implementing the ICAO recommendations, at -1 degrees the aviation lights should only be 1,125cd and at -10 degrees should only be 75cd, when visibility is greater than 5km.
- 6.7.12. These measures are proposed as embedded mitigation. They are likely to reduce the magnitude of visual effects particularly for distant receptors; however, this feature would not remove visibility of aviation lighting completely for any nearby receptors.
- 6.7.13. In the long term, when the Proposed Development is decommissioned, the turbines would be removed from the Site, and the hardstanding would be restored in accordance with a restoration plan to be approved by Dumfries and Galloway Council.

6.8 Assessment of Residual Effects

- 6.8.1. In general terms, best practice for EIA, requires that the significance of potential effects be assessed, with mitigation proposals identified, and the residual effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed.
- 6.8.2. In the case of LVIA for wind farms this presents two interrelated problems:
 - Potential effects cannot be meaningfully assessed in the absence of an assumed layout; and
 - Landscape and visual mitigation is principally focussed on the refinement of the Site layout ('mitigation by design').
- 6.8.3. The residual landscape and visual effects have been assessed as a result of the primary mitigation embedded within the design of the Proposed Development, relating to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. Therefore, the residual landscape and visual effects are considered the same as those assessed in the main part of the LVIA.



6.9 Assessment of Cumulative Effects

- 6.9.1. For the cumulative assessment, consideration was initially given to a 60km radius from the Site, as recommended by NatureScot best practice guidance. Following this, all other wind energy developments that are operational, under construction, consented, subject to a valid full planning application, or a valid Scoping Request within 35km of the Proposed Development were identified and reviewed as part of the cumulative baseline. It is acknowledged that this list is constantly evolving and therefore, the 1st of October 2024 was used as an effective 'cut-off' date after which no further research was undertaken on the evolving status of wind energy development in the study area, and the cumulative Landscape and visual Assessment (CLVIA) reflects the status of each wind farm at the time of this date.
- 6.9.2. In order that the assessment remains focused on those developments which have the greatest potential to give rise to significant cumulative effects with the Proposed Development, it was deemed appropriate to focus the assessment on a detailed 20km area from the Proposed Development. It was also deemed appropriate to scope out any turbines under 50m to tip, or any turbines between 50m and 80m to tip which lie over 10km from the nearest proposed turbine. Developments that are at the scoping or pre-scoping stage are considered separately due to the uncertainty that these developments will come forward and the lack of adequate information about project details. This is in accordance with the approach advocated in GLVIA3.
- 6.9.3. The cumulative sites within the 20km detailed study area are illustrated on **Figure 6.10: Other Wind Farms within 20km Study Area**. For reference, those within 35km of the Proposed Development are shown on **Figure 6.9: Other Wind Farms within 35km Study Area**.
- 6.9.4. At the time of preparing this LVIA, there were 14no. other wind farms within the detailed 20km cumulative study area which were either operational, under construction, or in planning (see **Table 6.7: Other Wind Farms within 20km of the Proposed Development**).

Table 6.7: Other Wind Farms within 20km of the Proposed Development

Site	Blade Tip Height	Number of Turbines	Distance and Direction
Operational			
Crossdykes	176.5m	10	8km east
Minsca	120m	16	8km south-east
Ewe Hill	111.5m	22	9km east
Solway Bank	127m	15	13km south-east
Craig	99.5m – 140m	6	15km east
Minnogap	125m	10	15km north-west
Harestanes	125m	68	15km north-west



Site	Blade Tip Height	Number of Turbines	Distance and Direction
Consented			
Little Hartfell	160m	12	5km east
Hopsrig	140m	12	10km east
Loganhead	200m	8	11km east
In Planning			
Scoop Hill	180m – 250m	60	7km north
Hopsrig (revised)	200m	12	10km east
Callisterhall	200m	7	11km south-east
Bloch	180m – 230m	21	15km south-east

6.9.5. For the avoidance of doubt, and to reiterate the methodology adopted in **Appendix 6.1: Landscape and Visual Impact Assessment Criteria**, the baseline against which the solus effects of the Proposed Development has been assessed includes all operational wind farms. An assessment of the Proposed Development with consideration of other operational wind farms has already therefore been presented in the main section of this LVIA.

6.9.6. The primary purpose of the cumulative impact assessment is therefore to consider the additional effects that might arise as a result of the Proposed Development if the other consented and in planning (awaiting determination) developments were also operational. In addition, this cumulative assessment also includes a further consideration of the overall totality of the effect, when the Proposed Development is considered alongside the other operational or proposed developments across the study area.

6.9.7. The baseline in the cumulative impact assessment is therefore extended to consider other developments that are not yet present in the landscape but are at various stages in the planning process. Two scenarios are generally considered which reflect the different degrees of certainty that these developments will be constructed:

- Scenario 1 assumes that other consented (but as yet unbuilt) wind farms are operational; and
- Scenario 2 extends this further to assume that all developments in planning are also operational. In reality, it is possible that other developments that are in planning may not be approved and constructed but this scenario assumes planning developments are operational as this presents the 'worst case'.

Cumulative ZTVs and Wireframes

6.9.8. Cumulative ZTVs (CZTVs) have been produced to illustrate the theoretical visibility of various other wind farms and combinations of wind farms with the Proposed Development.



6.9.9. It should be reiterated that ZTVs imply a much greater geographical extent of influence on the landscape and views of it than would actually be the case. It therefore follows that the cumulative ZTVs also exaggerate the actual impacts of the turbines on landscape character and visual amenity as they do not take account of vegetation or buildings in the landscape, which may restrict the nature and extent of views.

6.9.10. Cumulative ZTVs have been produced for the following combinations of existing, consented, and other wind farm sites in planning:

- Operational: Crossdykes, Minsca, Ewe Hill, Solway Bank and Craig (see **Figure 6.29**).
 - Operational: Minnygap and Harestanes (see **Figure 6.30**).
 - Consented: Little Hartfell, Hopsrig and Loganhead (see **Figure 6.31**).
 - Proposed: Hopsrig (revised), Callisterhall and Bloch (see **Figure 6.32**).
- Proposed: Scoop Hill (see **Figure 6.33**).

Cumulative Effects on Landscape Character

6.9.11. It is acknowledged that wherever more than one wind farm is visible at any given location in the landscape, there will be a greater overall or cumulative effect on landscape character than if just one wind farm was visible in the landscape.

6.9.12. It is also noted however that in any given landscape where turbines are already present, the additional effect on landscape character of introducing further turbines may not be as significant as the initial introduction of turbines. Furthermore, in general, the greater the number of turbines in the baseline landscape the less significant the addition of further turbines may be in landscape character terms as the landscape will be more heavily characterised by turbines in the baseline situation.

6.9.13. It has been assessed in the assessment of the solus effects of the Proposed Development set out earlier in this chapter that there would be some limited significant effects on landscape character as a result of the Proposed Development. The purpose of this section of the cumulative assessment is therefore to identify whether there would be any change to the assessments of significance previously set out in relation to the Proposed Development, once the other wind turbines which are not already operational, are considered to form part of the baseline landscape.

6.9.14. Generally speaking, such additional cumulative effects would arise when the addition of the Proposed Development to the baseline results in an increase in effects, when viewed in combination with the other wind turbines forming part of the baseline landscape.



Cumulative Scenario One – Other Consented Developments are also considered to be Operational

- 6.9.15. In this cumulative scenario (where other consented developments are also considered to be operational) there would be three additional developments: Little Hartfell, Hopsrig and Loganhead. Each of the developments are located to the east of the Site between 5km and 15km.
- 6.9.16. Little Hartfell is the closest of the other consented developments and lies around 5km to the east of the Site, in the adjacent Foothills with Forest LCT. The Hopsrig development lies slightly further to the east at around 10km, beyond the operational Crossdykes wind farm and to the north of the operational Ewe Hill wind farm, within the Southern Uplands with Forest LCT. The Loganhead development is then slightly further to the east again, at around 15km from the Proposed Development, adjacent to the operational Craig wind farm, again located within the Southern Uplands with Forest LCT.
- 6.9.17. The cumulative ZTV prepared for the consented developments (see **Figure 6.31**) illustrates the potential for visibility of the Proposed Development with one or other of the developments from much of the landscape, primarily from more elevated areas. The cumulative wirelines included with the visualisations (see **Volume 3b**) illustrate the relationship between the sites and show that in reality much of the theoretical visibility shown on the CZTV would be no more than blade tips, with greater visibility seen in only a small number of viewpoints (e.g. Viewpoint 12).
- 6.9.18. There would nonetheless be potential for cumulative effects to arise within LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) in that part of the landscape which lies between the Proposed Development and the various consented sites. Due to the proximity of the Hopsrig and Loganhead sites to the existing operational wind energy development, which has already been considered in the main assessment, there would be no additional significant cumulative effects as a result of the Proposed Development and these two consented sites, noting both of the two sites also lie at least 10km away from the Proposed Development.
- 6.9.19. Any cumulative landscape character effects on the Foothills LCT would therefore relate primarily to the Little Hartfell development. It has already been identified in the main assessment that the Proposed Development would give rise to a significant effect on the landscape character of the Foothills LCT up to a distance of around 6km to the east. The addition of the Little Hartfell development to the baseline would reduce the potential for significant effects to arise from the Proposed Development to the east, as wind energy would already form a characterising element of the landscape in this direction. However, it is acknowledged that collectively the two developments would result in a greater overall combined effect in this area. Nonetheless, the actual extent of any significant effects would be no different from that set out in the main assessment.



Cumulative Scenario Two – Other In-Planning Developments are also considered to be Operational

- 6.9.20. In this cumulative scenario (where other developments in planning are also considered to be consented and operational) there would be four additional developments: the revised Hopsrig development, Callisterhall, Bloch and Scoop Hill.
- 6.9.21. The revised Hopsrig development, Callisterhall and Bloch would all be located between 10km and 20km to the east and south-east of the Site. The revised Hopsrig development would lie beyond the operational Crossdykes wind farm and to the north of the operational Ewe Hill wind farm, at a distance of around 10km, within the Southern Uplands with Forest LCT. Callisterhall would lie around 11km to the south-east, in the same tract of the Foothills LCT as the Proposed Development. Bloch would then lie at around 15km, again in the Foothills LCT, adjacent to the existing Solway Bank wind farm.
- 6.9.22. The cumulative ZTV prepared for these three proposed developments (see **Figure 6.32**) illustrates the potential for visibility of the Proposed Development with one or other of the developments from much of the landscape, primarily from more elevated areas. The cumulative wirelines included with the visualisations (see **Volume 3b**) illustrate the relationship between the sites and show that in reality much of the theoretical visibility shown on the CZTV would be no more than blade tips, with greater visibility seen in only a small number of viewpoints (e.g. VP 12).
- 6.9.23. There would nonetheless be potential for cumulative effects to arise within LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) in that part of the landscape which lies between the Proposed Development and these proposed sites. However, due to the proximity of the revised Hopsrig, Callisterhall and Bloch sites to the existing operational wind energy development, which has already been considered in the main assessment, there would be no additional significant cumulative effects as a result of the Proposed Development and these proposed sites, noting each of the three sites also lies at least 10km away from the Proposed Development.
- 6.9.24. Scoop Hill is located around 7km to the north of the Proposed Development, primarily in the Southern Uplands with Forest LCT, but with its southernmost turbines extending into the Foothills and Pastoral Valley LCTs.
- 6.9.25. The cumulative ZTV prepared for the Scoop Hill development (see **Figure 6.33**) illustrates the potential for visibility of the Proposed Development with Scoop Hill from much of the landscape, primarily from more elevated areas. The cumulative wirelines included with the visualisations (see **Volume 3b**) illustrate the relationship between the sites and show that for some areas of the theoretical visibility shown on the CZTV there would be noticeable combined visibility, as illustrated in number of viewpoints (e.g. Viewpoints 2, 11, 12, 13 and 14).



- 6.9.26. There would therefore be potential for cumulative effects to arise within LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit) in that part of the landscape which lies between the Proposed Development and the Scoop Hill site. There would also be potential for cumulative effects to arise within NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit). It has already been identified in the main assessment that the Proposed Development would give rise to a significant effect on the landscape character of the Foothills LCT up to a distance of around 6km to the north, along with a limited part of the Intimate Pastoral Valley LCT.
- 6.9.27. The addition of the Scoop Hill development to the baseline would reduce the potential for significant effects to arise from the Proposed Development to the north, as wind energy would already form a characterising element of the landscape in this direction. It is acknowledged that collectively the two developments would result in a greater overall combined effect in this area. However, the actual extent of any significant effects would be no different from that set out in the main assessment.

Totality of the Combined Effect of All Developments, including the other Operational Developments

- 6.9.28. Consideration has also been given to the overall totality of the effect, when the Proposed Development is considered alongside the other operational, consented, and proposed developments.
- 6.9.29. The closest operational developments to the Proposed Development are the Crossdykes development that comprises 10. turbines, the Minsca development that comprises 16. turbines and the Ewe Hill development that comprises 22. turbines, that all lie between around 8km and 11km to the east of the Proposed Development. Slightly further beyond these lie the operational developments at Solway Bank and Craig between around 13km and 15km. The cumulative ZTV prepared for these operational developments (see **Figure 6.29**) illustrates the potential for visibility of the Proposed Development with one or other of the developments from much of the landscape, in particular from higher ground. Further to the north-west, at around 15km away, lie the larger operational Harestanes wind farm of 68 turbines with the 10 turbine Minnygap wind farm alongside. The cumulative ZTV prepared for these operational developments (see **Figure 6.30**) again illustrates the potential for visibility of the Proposed Development with one or other of the developments from parts of the landscape, primarily to the west of the Site.
- 6.9.30. Overall, collectively the operational developments serve to result in wind energy being seen as a noticeable feature in the landscape of the wider study area. In particular within the tract of the Foothills with Forest LCT to the north-west of the Site where there is an existing significant effect on landscape character across a notable area from the existing Harestanes and Minnygap developments. Similarly, to the east and south east of the Site where there is



an existing significant effect on landscape character across a notable area, covering parts of the Foothills, Foothills with Forest and Southern Uplands with Forest LCTs, from the existing Crossdykes, Minsca, Ewe Hill, Solway Bank and Craig developments.

- 6.9.31. The addition of the Proposed Development would serve to reinforce the pattern of wind energy within LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit), albeit extending the significant effects into a separate area further to the north-west within the character type. Overall, it would represent a further six turbines into a wider landscape context in which wind energy is commonplace and wind farms of many more turbines are either already operational or are proposed. The Proposed Development is therefore a modest addition to this overall pattern of development.

Cumulative Effects on Views and Visual Amenity

- 6.9.32. As with cumulative landscape character effects, it is acknowledged that the addition of the Proposed Development to the baseline has the potential to result in an increase in effects, when viewed in combination with other wind turbines forming part of the visual baseline.
- 6.9.33. It is also noted however that in any given view where turbines are already present, the additional effect on visual amenity of introducing further turbines may not have as great an effect as the initial introduction of turbines. Furthermore, in general the greater the number of turbines in the baseline view, the less significant the addition of further turbines may be. It is also recognised however that a slight additional effect on top of an existing effect, which at present is not quite significant, could in theory tip the balance such that the overall effect is deemed to be significant.
- 6.9.34. Again, generally speaking, such additional cumulative effects would arise where a visual receptor would now lie between a cumulative wind farm in one direction and the Proposed Development in a different direction, such that the visibility of turbines as a result of the addition of the Proposed Development would become notable in multiple, usually directly opposite, directions.

Cumulative 'in combination' Visual Effects

- 6.9.35. An 'in combination' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms, in addition to the Proposed Development, whilst standing in the one location. These effects are either 'simultaneous', where the viewer can see the additional turbines in the same angle of view, or 'successive', where the view can see the additional turbines in a different angle of view by turning their head.
- 6.9.36. As set out in the main assessment, there are many locations where other existing wind turbines are seen in views from the landscape in and around the Proposed Development. In particular, the more elevated viewpoints have views



of several existing developments at various more distant locations across the upland landscape.

Cumulative Scenario One – Other In Planning Developments are also considered to be Operational

- 6.9.37. In this cumulative scenario (where other consented developments are also considered to be operational) there would be three additional developments: Little Hartfell, Hopsrig and Loganhead. Each of the developments are located to the east of the Site between 5km and 15km.
- 6.9.38. Little Hartfell is the closest of the other consented developments and lies around 5km to the east of the Site. The Hopsrig development lies slightly further to the east at around 10km, beyond the operational Crossdykes wind farm and to the north of the operational Ewe Hill wind farm. The Loganhead development is then slightly further to the east again, at around 15km from the Proposed Development, adjacent to the operational Craig wind farm.
- 6.9.39. The cumulative ZTV prepared for the consented developments (see **Figure 6.31**) illustrates the potential for visibility of the Proposed Development with one or other of the developments from much of the landscape, primarily from more elevated areas. The cumulative wirelines included with the visualisations (see **Volume 3b**) illustrate the relationship between the sites and show that in reality much of the theoretical visibility shown on the CZTV would be no more than blade tips, with greater visibility seen in only a small number of viewpoints (e.g. Viewpoint 12).
- 6.9.40. There would nonetheless be potential for cumulative effects on visual receptors within that part of the landscape which lies between the Proposed Development and the various consented sites. However, due to the proximity of the Hopsrig and Loganhead sites to the existing operational wind energy development, which has already been considered in the main assessment, there would be no additional significant cumulative effects as a result of the Proposed Development and these two consented sites, noting both of the two sites also lie at least 10km away from the Proposed Development.
- 6.9.41. Any cumulative visual effects would therefore relate primarily to the Little Hartfell development. There is however a very limited number of visual receptors in the landscape between the Proposed Development and the Little Hartfell development, largely restricted to a small number of farmsteads and a minor road. Many of these farmsteads lie within the lower lying landscape of the Corrie Water, Cown Burn and Beck Burn valleys, where visibility of the Proposed Development is reduced due to screening by topography. Indeed, generally speaking any properties which have the potential for clear, open views towards the Little Hartfell development would not have clear, open views towards the Proposed Development and vice versa. The actual extent of any significant visual effects would therefore be no different from that set out in the main assessment.



Cumulative Scenario Two – Other In Planning Developments are also considered to be Operational

- 6.9.42. In this cumulative scenario (where other developments in planning are also considered to be consented and operational) there would be four additional developments: the revised Hopsrig development, Callisterhall, Bloch and Scoop Hill.
- 6.9.43. The revised Hopsrig development, Callisterhall and Bloch would all be located between 10km and 20km to the east and south-east of the Site. The revised Hopsrig development would lie beyond the operational Crossdykes wind farm and to the north of the operational Ewe Hill wind farm, at a distance of around 10km. Callisterhall would lie around 11km to the south-east. Bloch would then lie at around 15km, adjacent to the existing Solway Bank wind farm.
- 6.9.44. The cumulative ZTV prepared for these three proposed developments (see **Figure 6.32**) illustrates the potential for visibility of the Proposed Development with one or other of the developments from much of the landscape, primarily from more elevated areas. The cumulative wirelines included with the visualisations (see **Volume 3b**) illustrate the relationship between the sites and show that in reality much of the theoretical visibility shown on the CZTV would be no more than blade tips, with greater visibility seen in only a small number of viewpoints (e.g. Viewpoint 12).
- 6.9.45. There would nonetheless be potential for cumulative effects to arise on visual receptors in that part of the landscape which lies between the Proposed Development and these proposed sites. However, due to the proximity of the revised Hopsrig, Callisterhall and Bloch sites to the existing operational wind energy development, which has already been considered in the main assessment, there would be no additional significant cumulative effects as a result of the Proposed Development and these proposed sites, noting each of the three sites also lies at least 10km away from the Proposed Development.
- 6.9.46. Scoop Hill is located around 7km to the north of the Proposed Development. The cumulative ZTV prepared for the Scoop Hill development (see **Figure 6.33**) illustrates the potential for visibility of the Proposed Development with Scoop Hill from much of the landscape, primarily from more elevated areas. The cumulative wirelines included with the visualisations (see **Volume 3b**) illustrate the relationship between the sites and show that for some areas of the theoretical visibility shown on the CZTV there would be noticeable combined visibility, as illustrated in number of viewpoints (e.g. Viewpoints 2, 11, 12, 13 and 14).
- 6.9.47. There would nonetheless be potential for cumulative effects to arise on visual receptors in that part of the landscape which lies between the Proposed Development and the Scoop Hill site. Visual receptors in this area include users of the B723, the village of Boreland and various individual properties and farmsteads.



- 6.9.48. However, for the majority of these receptors, where there is the potential for clear, open views towards the Scoop Hill development, there would not be any clear, open views towards the Proposed Development and vice versa. The actual extent of any significant visual effects would therefore be no different from that set out in the main assessment.

Cumulative 'Sequential' Effects

- 6.9.49. A 'sequential' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms in addition to the Proposed Development, whilst travelling along a linear route. This could be either on foot, whilst walking on a footpath, or by bicycle or car along the public highway. The main assessment focussed on the following routes which were identified as having the greatest potential to experience significant effects as a result of the Proposed Development and these were also used as the basis for the cumulative assessment:

- Annandale Way;
- Core Path NORT/312 - Boreland to SUW;
- Core Path NORT/309 - Corrie Common to Hart Fell Loop;
- Core Path LOCW/285 - Mainshill to the Hass;
- Core Paths NORT/311 - Thundergarth to Hazelberry Hill / NORT/313 - Hazelberry to Burnswalk / HODD/259 - Burnswark Circular;
- A74(M);
- A709;
- B723;
- B7076;
- B7068; and
- B7020.

- 6.9.50. The main assessment identified a significant effect on users of short sections of the B723 and Core Path NORT/309 - Corrie Common to Hart Fell Loop. For the remainder of the routes set out above the main assessment identified no more than moderate, non-significant effects, but primarily effects of moderate-minor or less. The potential for the effects of the Proposed Development to result in significant cumulative effects once the other consented and in planning schemes are also included has been considered and no further significant cumulative effects have been identified.

- 6.9.51. The majority of the routes have some periodic visibility of existing or proposed wind energy, but the relatively limited additional impact of the Proposed Development would in no instance lead to an overall significant effect alongside



the other developments, where such a significant effect does not already arise from the other development in isolation.

Totality of the Combined Effects of all Developments

- 6.9.52. Consideration has also been given to the overall totality of the cumulative visual effect when the Proposed Development is considered alongside the other operational, consented and proposed developments.
- 6.9.53. The closest operational developments to the Proposed Development are the Crossdykes development that comprises 10no. turbines, the Minsca development that comprises 16no. turbines and the Ewe Hill development that comprises 22no. turbines, that all lie between around 8km and 11km to the east of the Proposed Development. Slightly further beyond these lie the operational developments at Solway Bank and Craig between around 13km and 15km. The cumulative ZTV prepared for these operational developments (see **Figure 6.29**) illustrates the potential for visibility of the Proposed Development with one or other of the developments from much of the landscape, in particular from higher ground. Further to the north-west, at around 15km away, lie the larger operational Harestanes wind farm of 68 turbines with the 10 turbine Minnygap wind farm alongside. The cumulative ZTV prepared for these operational developments (see **Figure 6.30**) again illustrates the potential for visibility of the Proposed Development with one or other of the developments from parts of the landscape, primarily to the west of the Site.
- 6.9.54. Overall, collectively the operational developments serve to result in wind energy being seen as a noticeable feature in the landscape of the wider study area. In particular, around 15km to the north-west of the Site where there is an existing significant effect on visual amenity across a notable area from the existing Harestanes and Minnygap developments. Similarly, to the east and south east of the Site where there is an existing significant effect on visual amenity across a notable area from the existing Crossdykes, Minsca, Ewe Hill, Solway Bank and Craig developments.
- 6.9.55. The addition of the Proposed Development would serve to reinforce the pattern of wind energy within the Foothills landscape, albeit extending the significant visual effects into a separate area further to the north-west of the existing Crossdykes, Minsca, Ewe Hill, Solway Bank and Craig developments and to the south-east of the Harestanes and Minnygap developments.

6.10 Summary

- 6.10.1. This chapter presents the findings of the LVIA and identifies the likely significant effects arising from the Proposed Development on landscape character and visual amenity. It has been informed by field visits and by consultation undertaken with statutory consultees including Dumfries & Galloway Council and NatureScot.



- 6.10.2. The existing landscape and visual baseline has been documented, and the assessment has been supported by figures (see **Volume 3a**) as well as visualisations produced to NatureScot Visualisation Standards that show representative views from locations consulted on at Scoping that illustrate existing and proposed views during daylight hours from all 17no. LVIA viewpoints and views during darkness hours from a select number of viewpoint locations (presented in **Volume 3b**).
- 6.10.3. As with almost any onshore wind farm development, it is recognised that the Proposed Development would give rise to some localised significant effects on landscape character and visual amenity.
- 6.10.4. The Proposed Development would result in direct and significant effects on a localised part of the 'host' landscape character type within which it is located, NatureScot LCT 175: Foothills - Dumfries & Galloway / DGWLCS LCT 18 Foothills (Annandale unit), extending to approximately 6km from the Proposed Development. Indirect and significant effects would also extend to approximately 6km from the Proposed Development on NatureScot LCT 172: Upland Fringe - Dumfries & Galloway / DGWLCS LCT 16 Upland Fringe (Annandale unit) and also across a small part of NatureScot LCT 161: Pastoral Valley - Dumfries & Galloway / DGWLCS LCT 5 Intimate Pastoral Valley (Dryfe unit).
- 6.10.5. In relation to visual effects, the Proposed Development would be visible from various nearby properties and settlements, as well as parts of the surrounding road, rail, footpath, and cycle networks.
- 6.10.6. It has been assessed that there would be significant visual effects experienced at 6no. of the 17 representative viewpoints during daylight hours and at 5no. during hours of darkness.
- 6.10.7. In terms of the effects on residential properties, a small number of the nearest properties would experience a significant visual effect from either a part of their house, garden, or principal access route. Appropriate offsets from all properties have however been maintained to ensure that no property would experience an overbearing visual impact.
- 6.10.8. In relation to settlements, the assessment found that the only settlement in the study area that would experience significant visual effects during daylight and/or darkness hours was Corrie Common.
- 6.10.9. There are also a small number of individual properties, both in the Dryfe Water valley and the wider landscape up to 5km, which would have a clear open view towards the turbines and a potential moderate significant effect.
- 6.10.10. The assessment of Core Paths and Recreational Routes found that receptors would experience significant effects from parts of: Core Path NORT/309 - Corrie Common to Hart Fell Loop. Significant effects were also identified for limited sections of the B723.



- 6.10.11. Regarding designated landscapes, whilst it is acknowledged that there would be some limited, non-significant effects upon landscape character and visual amenity experienced from part of the RSA, there would be no significant effects upon the special qualities of the Torthorwald Ridge RSA, nor its reason for designation.
- 6.10.12. Regarding cumulative effects, it is acknowledged that wherever more than one wind farm is visible at any given location in the landscape, there will be a greater overall or cumulative effect on landscape character than if just one wind farm was visible in the landscape. Likewise, it is acknowledged that the more wind turbines that are constructed in any given landscape, the greater the magnitude of overall (or combined) change to the landscape character.
- 6.10.13. At the time of preparing this LVIA, there were 14no. other wind farms within the detailed 20km cumulative study area which were either operational, under construction, or in planning.
- 6.10.14. In the first cumulative scenario considered (where other consented wind farms are also considered to be operational), there would be three additional developments: Little Hartfell, Hopsrig and Loganhead. Each of the developments are located to the east of the Site between 5km and 15km. It is not considered that the inclusion of these developments within the baseline would result in any cumulative landscape or visual effects that would lead to a change to the effects in relation to the Proposed Development which are already set out in the main assessment.
- 6.10.15. In the second cumulative scenario (where other developments in planning are also considered to be consented and operational) there would be four additional developments: the revised Hopsrig development, Callisterhall, Bloch and Scoop Hill.
- 6.10.16. The revised Hopsrig development, Callisterhall and Bloch would all be located between 10km and 20km to the east and south-east of the site. The revised Hopsrig development would lie beyond the operational Crossdykes wind farm and to the north of the operational Ewe Hill wind farm, at a distance of around 10km. Callisterhall would lie around 11km to the south-east. Bloch would then lie at around 15km, adjacent to the existing Solway Bank wind farm. Again, it is not considered that the inclusion of these developments within the baseline would result in any cumulative landscape or visual effects that would lead to a change to the effects in relation to the Proposed Development which are already set out in the main assessment.
- 6.10.17. Consideration has also been given to the overall totality of the effect, when the Proposed Development is considered alongside the other operational, consented, and proposed developments.
- 6.10.18. The closest operational developments to the Proposed Development are the Crossdykes development that comprises 10no. turbines, the Minsca



development that comprises 16no. turbines and the Ewe Hill development that comprises 22no. turbines, that all lie between around 8km and 11km to the east of the Proposed Development. Slightly further beyond these lie the operational developments at Solway Bank and Craig between around 13km and 15km. Further to the north-west, at around 15km away, lie the larger operational Harestanes wind farm of 68 turbines with the 10 turbine Minnygap wind farm alongside.

- 6.10.19. Overall, collectively the operational developments serve to result in wind energy being seen as a noticeable feature in the landscape of the wider study area. The addition of the Proposed Development would serve to reinforce the pattern of wind energy within LCT 175: Foothills - Dumfries & Galloway / DGWLCs LCT 18 Foothills (Annandale unit), albeit extending the significant effects into a separate area further to the north-west within the character type. Overall, it would represent a further six turbines into a wider landscape context in which wind energy is commonplace and wind farms of many more turbines are either already operational or are proposed. The Proposed Development is therefore a modest addition to this overall pattern of development.
- 6.10.20. It is important to acknowledge that localised significant effects on landscape character and visual amenity are inevitable as a result of commercial wind energy development anywhere in the UK and this is acknowledged by Policy 11(e)(ii) of NPF4. Whilst the LVIA identified some significant landscape and visual effects, it is considered that these effects would be localised in the manner envisaged by this Policy, with appropriate design mitigation to reduce the effects having been undertaken, and that the landscape has the capacity to accommodate the effects identified.
- 6.10.21. Wind turbines give rise to a wide spectrum of opinions, ranging from strongly adverse to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures, and a positive response to climate change. In the case of the Proposed Development, the turbines and associated ancillary development may be viewed by some as a symbol of continued progress by society towards a low carbon future.
- 6.10.22. In considering the effects of the Proposed Development, a precautionary approach has however been adopted, and it is therefore assumed that the effects identified would be adverse in nature even though it is recognised that for some people the impacts could be perceived to be beneficial.
- 6.10.23. There are no definitive quantifiable thresholds of acceptability in landscape and visual impact assessment. The identified effects on landscape character and visual amenity therefore need to be balanced against the other benefits of the Proposed Development in the overall planning balance.





Fred. Olsen Renewables Ltd
Ochil House, Springkerse Business Park
Stirling FK7 7XE

www.fredolsenrenewables.com

