Chapter 5: Landscape and Visual Amenity

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Chapter 5: Landscape and Visual Amenity

Contents

5 Landscape and Visual Amenity

5.1 Executive Summary

5.1.1 The Landscape and Visual Impact Assessment (LVIA) considers the potential effects of Appin Wind Farm (hereafter referred to as 'the Proposed Development') during construction, operation and decommissioning on the landscape and visual resources of the Site and the surrounding study area (45 km from the outermost turbines). The assessment focusses on locations where receptors are likely to be affected by the Proposed Development as predicted by a Zone of Theoretical Visibility (ZTV) map, which shows areas from where it will be theoretically visible.

5.1.2 Landscape character and resources are of importance in their own right. Effects on views and visual amenity as perceived by people are clearly distinguished from, although closely linked to, effects on landscape character and resources. Effects on views and visual amenity were assessed through the use of 20 representative daytime viewpoints (often places used for recreation etc.) and three dusk viewpoints (to consider effects in relation to visible aviation lighting which is required for structures above 150 m in height). As such, the assessments of effects on landscape and on visual receptors are separate, although linked, processes.

5.1.3 Landscape and visual considerations, including the appearance of the Proposed Development from key viewpoints, played a key role in the progression of the design. Consideration was given to the location and scale of the turbines, as well as all supporting ancillary infrastructure including the proposed substation. Best practice guidance, including SNH (2017) Siting and Designing Wind Farms in the Landscape (Version 3) was considered throughout the design process.

5.1.4 **Technical Appendix 5.1** sets out the methodology used for the assessment. Where effects are defined as Moderate or Major, these are considered to be significant in the context of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Landscape Effects

5.1.5 Significant effects are predicted on the landscape resource of the Site itself during construction (Major) and operation (Major). Landscape effects at the decommissioning stage will be similar in nature to those identified at the construction stage. Significant effects on landscape character are predicted for the following Landscape Character Types (LCT).

- LCT 178 - Southern Uplands with Forest in which the Proposed Development is located (the 'host' LCT): Moderate (Significant) landscape effects within 3 km;
- LCT 166 – Upland Glens: from areas with more open views in the Shinnel Water Valley, between Appin Lodge and north of Tynron (approximately 8 km radius) Moderate (Significant) landscape effects (but non-significant beyond that);
- LCT 177 – Southern Uplands: Moderate (Significant) landscape effects within 5 km (from the unit to the north of the Site); and
- LCT 175 – Foothills: Moderate (Significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water Valley).

5.1.6 These significant effects on landscape character are contained within approximately 8 km. Beyond this, no significant effects on landscape character are predicted.

Effects on Special Qualities of Designated Landscapes

5.1.7 The Proposed Development is located to the west of the Thornhill Uplands Regional Scenic Area (RSA). Effects on this locally designated landscape will be indirect. The landscape assessment recognises the potential for significant effects from parts of the following LCTs, to the west of the RSA:

- Uplands Glens – Dumfries and Galloway (LCT 116) from the Shinnel Water Valley, within approximately 8 km:
- Foothills – Dumfries and Galloway (LCT 175) from uplands to the east and south of the Site, within approximately 5 km; and
- Southern Uplands – Dumfries and Galloway (LCT 177) from uplands to the north of the Site, within approximately 5 km.

5.1.8 From the Foothills and Southern Uplands LCTs, the more elevated nature of these landscapes typically offers large scale views in which wind farms to the west of the RSA have influenced character. The indirect influence of wind farms is recognised in the RSA description, and the Proposed Development will be seen in this context.

5.1.9 From parts of the Shinnel Water Valley, the Proposed Development will introduce views of a wind farm, seen on horizons to the north-east of the valley (and outside of the RSA). This is likely to alter perceptual qualities such as 'isolation' and the 'intimate pastoral' character of the valley, as recognised in the RSA description. These effects, whilst significant, will be localised in the context of this large designation.

5.1.10 The Proposed Development is likely to alter certain perceptual aspects, as recognised in the RSA description, as experienced from parts of the Shinnel Water Valley. These effects will be very local in extent. From more upland and wider parts of the RSA, the Proposed Development is not judged to significantly alter the features which contribute to the RSA. From upland areas, outward views of wind farms to the west of the RSA already influence character and the Proposed Development will be seen in this context. Overall, the Proposed Development will not result in significant effects on the RSA designation.

5.1.11 No significant effects on any other nationally or locally designated landscape across the study area are predicted.

Visual Effects

5.1.12 Visibility is variable across the study area, with the landform and large areas of coniferous forestry providing screening from many locations. Major (significant) effects on views are predicted at five representative viewpoints and Moderate (significant) effects at a further six representative viewpoints. All of these effects are within approximately 11 km of the Site. These effects are predicted for local residents and recreational receptors, including hill walkers.

5.1.13 No significant visual effects are predicted from any settlements, as defined in the Local Development Plan (LDP).

5.1.14 Significant sequential effects are predicted from more open and upland sections of the Southern Upland Way (SUW), within approximately 10 km radius, and the Core Paths Network within 5 km.

5.1.15 For most commercial wind farms, having some residual significant landscape and visual effects is unavoidable. The level and distribution of assessed significant landscape and visual effects for the Proposed Development are considered to be as would be expected for a large commercial wind farm in this type of landscape.

Cumulative Effects

5.1.16 Additional cumulative effects associated with the Proposed Development, in a theoretical future baseline which includes consented and proposed wind farms, are judged to be similar or in some senses reduced (masked), given the increased number of wind farms with which the Proposed Development will be seen.

5.1.17 In an alternative future cumulative baseline, the influence of wind farms across the study area will increase. In this alternative theoretical future cumulative baseline, from a number of locations the Proposed Development will be seen behind, or closely within the context of a larger number of wind farms located in the Southern Uplands between Nithsdale and the Glenkens, and west of the Thornhill Uplands RSA. In this context, effects associated with the Proposed Development will be somewhat masked, and therefore reduced for a number of landscape and visual receptors. These findings are detailed in **Table 5.38**, at the end of this chapter, and will affect the following receptors:

- LCT 177 – Southern Uplands (when factoring in consented and proposed wind farms);
- VP4 – Shinnelhead (when factoring in proposed wind farms);
- VP6 - Benbrack, Striding Arch (when factoring in proposed wind farms);
- VP8 - Southern Upland Way near Cloud Hill (when factoring in consented and proposed wind farms);
- VP10 - Auchengibbert Hill (when factoring in proposed wind farms);
- VP11 - Cairnkinna Hill (when factoring in consented and proposed wind farms);
- VP12 - Blackcraig Hill (when factoring in consented and proposed wind farms); and
- SUW (when factoring in consented and proposed wind farms).

Aviation Lighting Assessment

5.1.18 An assessment of the effects in relation to permanent aviation lighting is included in **Technical Appendix 5.3.**

5.1.19 Four of the turbines are proposed to have permanent aviation lighting which consists of a medium intensity 2000 candela light mounted on the turbine hub (with the option to dim these lights to 200 candela (cd) in clear weather conditions). As set out in **Technical Appendix 4.6**, Met Office tables

indicate that visibility is below 5 km for an average of 2 % of the time at Prestwick Airport. This suggests that the lights of the Proposed Development will operate (i.e. be illuminated) at 2000 cd for approximately 2 % of the time (visibility below 5 km) and operate at the equivalent of not less than 10 % of the minimum peak intensity (i.e. 200 cd) when visibility is greater than 5 km for approximately 98 % of the time. When viewed from below the horizonal, the lights have mitigation which allows them to be seen at reduced intensities. Viewing distance will also affect the intensity of the lights. Significant effects are predicted to extend into the hours of darkness for the following landscape receptors:

- host Southern Uplands with Forest – Dumfries and Galloway LCT - Major (significant) landscape effects within the Site, and Moderate (significant) effects within 3 km.
- Southern Uplands – Dumfries and Galloway LCT - Moderate (significant) landscape effects within 5 km to the north of the Site (these effects will reduce to Minor under the Scenario 1 cumulative assessment).
- Foothills LCT - Moderate (Significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water valley).
- Upland Glens – Dumfries and Galloway LCT - Moderate (significant) landscape effects within the LCT between the north of Tynron and Appin Lodge.

5.1.20 Significant visual effects are predicted for Viewpoint 4: Shinnelhead, and Viewpoint 7: Shinnel Water valley near Craigencoon. This is due to the introduction of aviation lighting to a dark sky context, seen in relatively close proximity. Under a Scenario 1 cumulative baseline, it is predicted that these effects will reduce to not significant for Viewpoint 4: Shinnelhead, due to the influence of aviation lighting at Sanquhar II Wind Farm.

5.1.21 Outside the representative assessment viewpoints, significant visual effects are also anticipated from elevated viewpoints within approximately 8 km, including Viewpoint 1: Colt Hill, Striding Arch; Viewpoint 2: Bail Hill, Striding Arch; VP6: Benbrack, Striding Arch; VP8: Southern Upland Way near Cloud Hill; and VP10: Auchengibbert Hill. Under a Scenario 1 (and Scenario 2) cumulative baseline, it is predicted that these effects will reduce to not significant for VP8 and VP10, due to the influence of 19 lit turbines at Sanquhar II Wind Farm in baseline views.

5.2 Introduction

5.2.1 This chapter presents the findings of the assessment of likely significant effects of the Proposed Development on:

- landscape character and resources, including effects upon the physical elements, character and/or qualities of the landscape during construction, operation and decommissioning; and
- visual amenity, including effects upon potential receptors (people) and viewing groups caused by change in the appearance of the landscape during construction, operation and decommissioning.

5.2.2 Landscape character and resources are considered to be of importance in their own right and are valued regardless of whether they are seen by people. Effects on views and visual amenity as perceived by people are clearly distinguished from, although closely linked to, effects on landscape character and resources. Landscape and visual assessments are therefore separate, although linked, processes. This chapter deals with landscape and visual effects separately, including assessment of cumulative landscape and visual effects.

5.2.3 The assessment methodology for the Landscape and Visual Impact Assessment (LVIA) was developed in accordance with the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) 2013, and is detailed in **Technical Appendix 5.1: LVIA and Visualisation Methodology**. The assessment was undertaken by chartered Landscape Architects at LUC (see **Technical Appendix 1.1** for further details on qualifications).

5.2.4 The chapter should be read in conjunction with the following chapters:

- **Chapter 3**: **Site Description and Design Evolution**;
- **Chapter 4**: **Description of the Proposed Development**;
- **Chapter 9: Cultural Heritage**; and
- **Chapter 7**: **Ecology**.

5.2.5 This chapter is supported by **Figures 5.1 to 5.10** in **Volume 2** of the Environmental Impact Assessment (EIA) Report. **Figures 5.11 to 5.30** (which provide viewpoint visualisations) are included in **Volume 3** of the EIA Report. All figures are referenced throughout the text where necessary.

5.2.6 The following appendices are also referred to throughout the chapter, and are found in **Volume 4** of the EIA Report:

- Technical Appendix 5.1: LVIA and Visualisation Methodology;
- Technical Appendix 5.2: Aviation Lighting Assessment: and
- Technical Appendix 5.3: Residential Visual Amenity Assessment (RVAA).

5.2.7 The Proposed Development comprises up to nine turbines, each with a maximum tip height of 200 metres (m) (and a candidate hub height of 119 m, used for assessment purposes). The Proposed Development includes access tracks and associated ancillary development, as detailed further in **Chapter 4**.

5.3 Relevant Legislation, Policy and Guidance

5.3.1 The LVIA was carried out in accordance with, and with reference to information and principles contained in:

Legislation and Assessment Guidance

- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 – the EIA Regulations;
- Landscape Institute and the Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) and associated clarification notes;
- Landscape institute (2021) Technical Guidance Note 02-21 Assessing landscape value outside national designations;
- NatureScot (2021) Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments;
- SNH (2018) A Handbook on Environmental Impact Assessment, Appendix 2: Landscape and Visual Impact Assessment, Version 5;
- SNH (2017) Visual Representation of Wind Farms, Version 2.2.
- Landscape Institute (2019) Technical Guidance Note 06/19, Visual Representation of Development Proposals;
- Landscape Institute (2019) Technical Guidance Note 02/19, Residential Visual Amenity Assessment;
- NatureScot (2024) Pre-application guidance for onshore wind farms;
- NatureScot (2024) Guidance on Aviation Lighting Impact Assessment; and

  NatureScot (2025) Special Landscape Qualities - Guidance on assessing effects.

Design and Locational Guidance

- NatureScot (2024) Good Practice During Windfarm Construction, Version 3;
- SNH (2017) Siting and Designing Wind Farms in the Landscape, Version 3; and
- SNH (2015) Constructed Tracks in the Scottish Uplands, 2nd Edition.

Landscape Character, Landscape Capacity and Designated Landscapes

- NatureScot (2019) National Landscape Character Assessment;
- Dumfries and Galloway Council (DGC) (2025) Wind Energy Landscape Sensitivity Study, Assessment of Larger Turbines; and

  DCG (2018) Regional Scenic Areas Technical Paper.

Planning Policy, Local Development Plans and SPG

- Scottish Government (2023) National Planning Framework 4;
- DGC (2019) DGC Local Development Plan 2; and
- DGC (2020) Wind Energy Development; Development Management Considerations.

5.4 Consultation

5.4.1 In undertaking the assessment, consideration was given to the EIA Scoping responses and other consultation which was undertaken as detailed in **Table 5.1**.

Table 5.1 – Consultation

Consultee and Date	Scoping / Other Consultation	Consultation Response	Applicant Response
ECU	Scoping Responses (June 2022)	– *"…the study area in kilometres from the outer most turbines of the proposed development and the final list of viewpoints and visualisations, including those for Night Time Assessment, should be agreed following discussion between the Company, Dumfries and Galloway Council and NatureScot."* – *"…developments to be included in cumulative landscape impact assessments should be discussed and agreed by the Company and Dumfries & Galloway Council."*	– The LVIA study area (45km) reflects the study area as required in NatureScot visualisation standards. The final list of viewpoints (including night time assessment viewpoints) was agreed with DCG and NatureScot.
NatureScot	Scoping Responses (June 2022)	Additional viewpoint requests from: – Moniaive. – Thornhill.	– Moniaive is included as assessment viewpoint. – Thornhill - limited visibility due to woodland and buildings in settlement. Not included.
DGC	Scoping Responses (June 2022)	– Suggest East Mount Lowther as alternative viewpoint location to Lowther hill. – Suggest SUW near Cloud Hill as alternative viewpoint location to SUW near Whing Head. – Additional viewpoint request from Bail Hill. – Additional viewpoint request from Cairnkinna. – Additional viewpoint request from minor Ae / Thornhill Road. – Various additional wirelines requests, see page 27 onwards of scoping response.	– East Mount Lowther included as assessment viewpoint. – SUW near Cloud Hill included as assessment viewpoint. – Bail Hill included as assessment viewpoint. – Cairnkinna included as assessment viewpoint. – Minor Ae / Thornhill road not included due to sequential nature of distant views. – Various additional wireline requests included, refer to **Volume 3 Visualisations**.
East Ayrshire Council (EAC)	Scoping Responses (June 2022)	– Additional viewpoint request from Blackcraig Hill.	– Included.
Tynron Community Council (TCC)	Scoping Responses (June 2022)	Additional viewpoint requests from: – Properties in Shinnel Glen. – Hill above High Appin. – Cairnkinna/ Glenwhargen Crags. – Tynron Doon Iron Age Fort. – Auchengibbert Hill. – Polskeoch. – Allan's Cairn Covenanter's memorial. – Scaur Glen Road.	– The LVIA includes two representative viewpoints in Shinnel Glen, which (together with fieldwork) provide adequate coverage to understand visual effects from properties in this area. Wirelines for all properties within 3 km of the proposed turbines will also be provided, to accompany the RVA Assessment (see **Technical Appendix 5.3**). – High Appin included as assessment viewpoint. – Cairnkinna included as assessment viewpoint (Glenwhargen Crags is a similar view to Cairnkinna and therefore a separate assessment is not undertaken). – ZTV indicates no visibility from Tynron Doon Iron Age Fort. Not included. – Auchengibbert Hill included as assessment viewpoint. – Views from Polskeoch screened by the landform. No visibility so not included. – Alan's Cairn - a wireline visualisation will be provided with the cultural

Consultee and Date	Scoping / Other Consultation	Consultation Response	Applicant Response
			heritage assessment, to assess potential effects from this location, should forestry be removed in the future (refer to **Figure 9.30**). – Visibility from the low lying track through Scaur Glen is limited. Not included.
TCC	Post Scoping Viewpoint Consultation (June 2022)	Viewpoint request from: – High Appin	– High Appin included as assessment viewpoint.
NS	Post Scoping Viewpoint Consultation (August 2022)	Accepted the inclusion of viewpoint from Moniaive and exclusion of viewpoint from Thornhill	– Moniaive included as assessment viewpoint.
EAC	Post Scoping Cumulative/ Night-time Assessment Consultation (October 2023)	Night-time viewpoint requests from: – A713 Stroangassel; or – Cairnmore of Carsphairn	– Night time view from A713 Stroangassel not included – viewpoint is an oblique and sequential view at distance over 10 km. Limited visibility of the Proposed Development and unlikely significant night time effects at distance. – Night time view from Cairnmore of Carsphairn not included – viewpoint is a remote hilltop, less frequented during the hours of darkness.
DGC	Post Scoping Cumulative/ Night-time Assessment Consultation (October 2023)	Night-time viewpoint request from: – Shinnelhead	– Included.
DGC	Post Scoping Cumulative/ Night-time Assessment Consultation (March 2025)	No response.	– N/A
NS	Post Scoping Cumulative/ Night-time Assessment Consultation (March 2025)	No response.	– N/A

5.5 Methodology

Introduction

5.5.1 **Technical Appendix 5.1** sets out the detailed methodology used for the LVIA, including the cumulative assessment.

5.5.2 The methodology for the Residential Visual Amenity Assessment (RVAA) is set out in **Technical Appendix 5.3: Residential Visual Amenity Assessment**.

5.5.3 The methodology for producing the visualisations was based on current good practice guidance as set out by NatureScot (NS). Detailed information about the approach to viewpoint photography, ZTV and visualisation production is provided in **Technical Appendix 5.1**.

Guidance

5.5.4 This methodology was developed by Chartered Landscape Architects (Chartered Members of the Landscape Institute (CMLI)) at LUC, who have extensive experience in the assessment of landscape and visual effects arising from wind energy developments.

5.5.5 The methodology was developed primarily in accordance with the principles contained within GLVIA3. NatureScot cumulative guidance also informs the approach to the assessment of cumulative landscape and visual effects in relation to onshore wind energy development.

Scope of Assessment

5.5.6 LVIA considers direct physical changes to the landscape as well as direct and indirect changes in landscape character. It also considers changes to areas designated for their scenic or landscape qualities, and the visual impacts of the Proposed Development as perceived by people.

5.5.7 All potentially significant landscape and visual effects (including cumulative effects) are examined, including those relating to construction and operation.

5.5.8 Where it is judged that significant effects are unlikely to occur, the assessment of likely effects on some receptors may be 'scoped out'.

5.5.9 An assessment of the effects during the decommissioning phase is not undertaken in the EIA Report. Effects associated with decommissioning will be similar in nature to effects associated with construction, though in reverse.

Study Area

5.5.10 The study area for a LVIA is determined by the nature and scale of the Proposed Development and the nature of the study area. The study area for the assessment was defined as 45 km from the outermost turbines that form part of the Proposed Development, in all directions. This is recommended in current guidance for turbines over 150 m to blade tip.

5.5.11 To consider cumulative effects of the Proposed Development in relation to other schemes in the wider area, wind farms within 45 km of the Proposed Development are included for the purposes of modelling and assessment, in line with consultation described in **Table 5.1**. As recommended in relevant guidance, a review of patterns of wind farm development across the Study Area is also provided (see **Figure 5.7b**).

5.5.12 A ZTV map to blade tip height (200 m) was generated, illustrating areas from where the Proposed Development may be theoretically visible. The ZTV is based on bare earth topography and therefore does not take account of potential screening by vegetation or buildings. The ZTV is used as a tool for understanding where views of the wind farm may occur. Receptors which are outside the ZTV will not have any visibility of the Proposed Development and are not considered further in this LVIA.

5.5.13 The ZTV to blade tip height (200 m) is shown in **Figure 5.2**, and the ZTV to candidate hub height (119 m) is shown in **Figure 5.3**. A large A1 format tip height ZTV has also been prepared (**Figure 5.2c**).

Methodological Overview

5.5.14 The key steps in the methodology for assessing landscape and visual effects are as follows:

- the landscape of the study area is analysed, and landscape receptors identified, informed by desk and field-survey;
- the area over which the Proposed Development will potentially be visible is established through the creation of an initial ZTV plan [1];
- the visual baseline is recorded in terms of the different receptors (groups of people) who may experience views of the Proposed Development (informed by the initial ZTV) and the nature of their existing views and visual amenity;
- potential assessment viewpoints are selected, as advocated by GLVIA3 to represent a range of different receptors and views, in consultation with statutory consultees;
  - "***Representative viewpoints***, *selected to represent the experience of different types of visual receptor, where larger numbers of viewpoints cannot all be included individually and where the significant effects are unlikely to differ – for example, certain points may be chosen to represent the views of users of particular public footpaths and bridleways;*
  - ***Specific viewpoints***, *chosen because they are key and sometimes promoted viewpoints within the landscape, including for example specific local visitor attractions, viewpoints in areas of particularly noteworthy visual and/or recreational amenity such as landscapes with statutory landscape designations, or viewpoints with particular cultural landscape associations; and*
  - ***Illustrative viewpoints***, *chosen specifically to demonstrate a particular effect or specific issues, which might, for example, be the restricted visibility at certain locations*" (GLVIA3, Para 6.19, Page 109).
- likely significant effects on both the landscape as a resource and visual receptors are identified; and

[1] A bare ground ZTV indicates areas from where a development is theoretically visible, but does not account for screening or filtering from vegetation and/or buildings.

- the level (and significance) of landscape and visual effects are judged with reference to the nature of the receptor (commonly referred to as the sensitivity of the receptor), which considers both susceptibility and value, and the nature of the effect (commonly referred to as the magnitude of effect), which considers a combination of judgements including scale, geographical extent, duration and reversibility.

Assessing Significance

Sensitivity Criteria

5.5.15 Judgements regarding the sensitivity of landscape or visual receptors require consideration of both the susceptibility of the landscape or visual receptor to the type of development proposed and the value attached to the landscape or visual resource. Judgements are recorded as high, medium or low. Detailed information about the approach to assessment of sensitivity is provided in **Technical Appendix 5.1**.

Magnitude of Change

5.5.16 Judgements regarding the magnitude of landscape or visual change are recorded as high, medium or low and combine an assessment of the scale and geographical extent of the landscape or visual change, its duration and reversibility. Detailed information about the approach to assessment of magnitude is provided in **Technical Appendix 5.1**.

Significance Criteria

5.5.17 The predicted significance of the effect is determined through a standard method of assessment based on professional judgement and guidance, considering both sensitivity and magnitude of change. Major and moderate effects are considered significant in the context of the EIA Regulations.

Direction of Effects

5.5.18 As required by the EIA Regulations and GLVIA3, the assessment must identify the direction of effect as either being beneficial, adverse (also referred to as positive or negative) or neutral.

5.5.19 The direction of landscape and visual effects is determined in relation to the degree to which the proposal fits with the existing landscape character or views, and the contribution to the landscape or views that the Proposed Development makes, even if it is in contrast to the existing character of the landscape or views.

5.5.20 With regard to wind energy development, whilst there is a broad spectrum of response from the strongly positive to the strongly negative, an assessment is required to take an objective approach. Therefore, to cover the 'worst case' situation, likely landscape and visual effects, including cumulative effects, relating to commercial scale wind farms are generally assumed to be adverse.

Methodology for Assessment of Cumulative Effects

5.5.21 NatureScot (2021) Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments states that the purpose of cumulative assessment is to "*describe, visually represent and assess the ways in which a proposed wind farm would have additional impacts when considered with other consented or proposed wind farms*".

5.5.22 The cumulative assessment therefore focuses on the additional cumulative change which may result from the introduction of the Proposed Development (i.e. in addition to other development which may or may not be present).

5.5.23 Cumulative assessment for wind farm proposals focuses on potential interactions with other existing and proposed wind farms. It may also consider the potential interactions between different types of development (e.g. transmission infrastructure, other energy generation stations or other built development) if these are likely to result in significant cumulative landscape and visual impacts.

5.5.24 GLVIA3 also makes reference to 'combined cumulative effects' (also called in-combination), i.e. an assessment which considers the effects if all current, past and future proposals are deemed present, including the Proposed Development. GLVIA3 (paragraph 7.13) acknowledges that "*assessing combined effects involving a range of different proposals at different stages in the planning process can be very complex*". Therefore, this type of cumulative effect is only described where it is considered likely to be a relevant consideration in the determination of the Proposed Development.

Baseline Scenarios

5.5.25 The baseline for the LVIA is the current landscape at the time of writing the assessment. This is referred to as the 'primary assessment'. In the case of the present LVIA, the Proposed Development is being introduced into an area where wind farms and wind turbines are already a feature of the baseline. Wind farms that are under construction are also considered within the primary assessment. As such, many effects considered within the primary assessment are cumulative effects, or include a

cumulative component. Where this is the case, the cumulative elements are described within the primary assessment.

5.5.26 In considering potential future cumulative effects, it is also necessary to assess the effects of the addition of the Proposed Development into a speculative future landscape baseline. This includes wind farm proposals that are consented but not yet built, and/or undetermined planning applications. Two future baseline scenarios are defined, based on the level of certainty associated with the proposals. These scenarios are defined below.

- **Scenario 1** includes, in addition to the primary assessment, wind farms that are more likely to be built as they have received planning consent.
- **Scenario 2** includes, in addition to the primary assessment and scenario 1, wind farms that are less likely to be built as they are undetermined planning applications.

5.5.27 Wind farms at Scoping stage have even less certainty attached, and limited information may be available about these proposals or is highly likely to change. They are not generally included in scenario 2 unless there is a high likelihood of significant cumulative effects, or at the specific request of statutory consultees. No scoping stage schemes have been included in this assessment

5.5.28 A cut-off date of 24th Feb 2025 was applied for the inclusion of developments within the cumulative assessment.

Types of Cumulative Effects

5.5.29 The NatureScot (2021) cumulative guidance states that "*Cumulative landscape impacts can change either the physical fabric or character of the landscape, or any special values attached to it. For example:*

- *Cumulative impacts on the physical fabric of the landscape arise when two or more developments affect landscape components such as woodland, dykes, rural roads or hedgerows. Although this may not significantly affect the landscape character, the cumulative effect on these components may be significant – for example, where the last remnants of former shelterbelts are completely removed by two or more developments.*
- *Cumulative impacts on landscape character arise when two or more developments introduce new features into the landscape. In this way, they can change the landscape character to such an extent that they create a different landscape character type.*"

5.5.30 Three types of cumulative effects on visual amenity are considered in the assessment: combined, successive and sequential:

- Combined effects occur where a static viewer is able to view two or more wind farms from a viewpoint within the viewers' same arc of vision (assumed to be about 90 degrees for the purpose of the assessment);
- Successive effects occur where a static viewer is able to view two or more wind farms from a viewpoint, but needs to turn to see them; and
- Sequential effects occur when a viewer is moving through the landscape from one area to another, for instance when a person is travelling along a road or footpath, and is able to see two or more wind farms at the same, or at different times as they pass along the route. Frequently sequential effects occur where wind farms appear regularly, with short time lapses between points of visibility. Occasionally sequential effects occur where long periods of time lapse between views of wind farms, depending on speed of travel and distance between viewpoints.

Assessment of Cumulative Effects

5.5.31 For each of the three baseline scenarios (primary assessment, scenario one, and scenario two) a separate assessment of effects is made. The approach does not assess the 'difference' between scenarios, but treats each as a separate potential situation. It is important to note that in practice only one situation will arise at any one time, so effects as set out should be interpreted as an either/or situation, and should not be double counted.

5.5.32 Cumulative effects are assessed in accordance with the methodology presented in the preceding sections, and guided by the principles set out in **Diagram 1** of **Technical Appendix 5.1**. For the cumulative assessment, the following factors are considered as part of the scale of effect:

- The pattern and arrangement of wind farms in the landscape or view, e.g. developments seen in one direction or part of the view (combined views), or seen in different directions (successive views in which the viewer must turn) or developments seen sequentially along a route.
- The relationship between the scale of the wind farms, including turbine size and number, and if wind farms appear balanced in views in terms of their composition, or at odds with one another.

- The position of the wind farms in the landscape, e.g. in similar landscape or topographical context.
- The position of the wind farms in the view, e.g. on the skyline or against the backdrop of land; or how the Proposed Development will be seen in association with another development (separate, together, behind etc.).
- The distances between wind farms, and their distances from the viewer.

5.5.33 More significant cumulative landscape effects are likely where:

- the Proposed Development extends or intensifies a landscape effect;
- the Proposed Development 'fills' an area such that it alters the landscape resource; and / or
- the interaction between the Proposed Development and other wind farms means that the total effect on the landscape is greater than the sum of its parts.

5.5.34 GLVIA 3 states "*The most significant cumulative landscape effects are likely to be those that would give rise to changes in the landscape character of the study area of such an extent as to have major effects on its key characteristics and even, in some cases, to transform it into a different landscape type. This may be the case where the project being considered itself tips the balance through its additional effects. The emphasis must always remain on the main project being assessed and how or whether it adds to or combines with the others being considered to create a significant cumulative effect*" (GLVIA 3, Para 7.28).

5.5.35 More significant cumulative visual effects are likely where:

- the Proposed Development extends or intensifies a visual effect;
- the Proposed Development 'fills' an area such that it alters the view/ visual amenity;
- the interaction between the Proposed Development and other developments means that the total visual effect is greater than the sum of its parts; and/or
- the Proposed Development will lengthen the time over which effects are experienced (sequential effects).

5.6 Baseline Conditions

Landscape Baseline

5.6.1 This section provides an overview of the landscape baseline, including current landscape character, condition, and any designated landscapes. It draws on published studies, supplemented with project specific research and field work where relevant.

The Site and Context

5.6.2 The Proposed Development site is located within Dumfries and Galloway approximately 6.2km north-west of the settlement of Moniaive (from town centre to site boundary), in the Southern Uplands between Nithsdale and the Glenkens. The Site encompasses two parallel ridges of largely forested hills that lie around the head of Appin Burn, to the east of the Carsphairn Hill Range. The Southern Upland Way (SUW) runs approximately 1 km to the west of the Site as it traverses the peak of Black Hill.

5.6.3 Landform across the Site comprises of a series of rounded summits around a valley to the south-east. Summits around the edge of the Site include Colt Hill (598 m AOD) Blackcraig hill (555 m AOD), Mullwhanny Hill (535 m AOD), Lamgarroch (573 m AOD) and Bail Hill (517 m AOD). Elevation falls towards the east to around 225 m AOD from the valley floor to the east of the Site.

5.6.4 The landcover across the Site consists mainly of coniferous forestry blocks with areas of open heath and moorland along the higher ground. Forestry tacks incise the hillside with irregular patterns and are particularly evident in blocks which have been felled / areas of saplings. The Appin Burn and its associated tributaries run through the centre of the Site, from west to east, and flow towards the Shinnel Water.

5.6.5 The study area extends to a 45 km radius from the outermost turbines of the Proposed Development in all directions, as shown in **Figure 5.1**. The majority of the study area is within the Dumfries and Galloway local authority area with other parts covered by South Ayrshire, East Ayrshire, South Lanarkshire and the Scottish Borders.

5.6.6 The landscape character of the study area is varied and includes more remote uplands and settled valleys and coastal edges. Large areas of forestry and wind farm development have changed the character of some parts of the landscape. Operational wind farms across the study area are shown on **Figure 5.7**.

5.6.7 The settlement pattern across the study area is generally low density, confined to the narrow valley floors and wider straths and glens to the east, as well as coastal areas to the south and north-west. There is no residential development within the Site itself. Larger settlements across the study area include Dumfries to the south-east and Ayr to the north-west, both beyond 20 km from the Site.

5.6.8 The road network within the more immediate Site context is characterised by minor tracks and B-roads. Major roads within the study area include the A76 which runs north from Dumfries, through Nithsdale, to the east of the Site. The A702 runs west from this route, to the south of the Site and through the settlement of Moniaive. South of the Galloway Forest Park, within the study area, the A75 runs west from Dumfries to Newton Stewart. The A74(M) runs north from Lockerbie along the east of the study area.

Landscape Character Types (LCT) and Areas

5.6.9 The landscape character of the study area is described in the online Landscape Character Assessment for Scotland, published by NatureScot in 2019. LCTs across the study area are shown in **Figure 5.5a** and are shown overlaid with the ZTV in **Figure 5.5b**. The Site is located in the Southern Uplands with Forest LCT. The key characteristics of this LCT, and other LCT which are carried forward for detailed assessment, are provided in the landscape character assessment section of this chapter.

5.6.10 The theoretical visibility of the Proposed Development (as indicated by the ZTV coverage) is used as a means of identifying which LCTs require further assessment, and which LCTs can be scoped out because they are unlikely to experience significant effects as a result of the Proposed Development.

5.6.11 For LCT beyond 20 km from the proposed turbines and given the nature of the Proposed Development (which will be seen in the context of other operational wind farms in the Southern Uplands to the north and west of the Site, when visible) effects on landscape character are unlikely to be significant, and these are scoped out. Other LCT with limited theoretical visibility and/ or where the key characteristics are unlikely to be significantly altered by wind farm development at the Site, are also not considered further within the assessment, as shown in **Table 5.2**. LCTs included within the assessment are highlighted in grey in **Table 5.2**.

Table 5.2 – Landscape Character Types and Areas

Landscape Character Type / Area within 20km	Distance and Direction from nearest Turbine	Theoretical visibility of proposed wind turbines of the Development (ZTV coverage, refer to Figure 5.2) and other considerations to determine if LCT carried forward for detailed assessment
178 – Southern Uplands with Forest	Proposed turbines within	– Three units of this LCT within 20 km, to the north and south of Nithsdale and west of the Site around Carsphairn Forest. The proposed turbines are located within the unit of this LCT to the south of Nithsdale. Considered further.
166 – Upland Glens	Proposed turbines on edge	– Five units of this LCT within 20 km. The ZTV indicates more widespread visibility from the units of this LCT along the Shinnel Water and Dalwhat Water, in the glens to the north and south of the Site. Considered further.
177 – Southern Uplands	Within 5 km	– Four units of this LCT within 20 km, to the north and south of Nithsdale and west of the Site south of Carsphairn Forest. The ZTV indicates visibility from Site facing hill flanks from all four. Considered further.
175 - Foothills	Within 5 km	– Five units of this LCT within 20 km. No visibility from LCT to west, at head of the Glenkens. The ZTV indicates an intermittent pattern of visibility, from the units of this LCT to the south-east of the Site. Considered further.
176 – Foothills with Forest	Beyond 5 km	– Three units of this LCT within 20 km, to the east of the Site and south of the Site either side of the Glenkens. The pattern of visibility is more intermittent, and the characteristic forest cover will help to reduce actual visibility. From areas with theoretical visibility, these tend to be more upland in nature, where wider outwards views are more likely to be altered by operational wind farm development. Not considered further.
165 – Upper Dale	Beyond 7 km	– Two units of this LCT within 5 km, focused around Nithsdale and the Glenkens. The ZTV indicates an intermittent pattern of visibility from both, focused to higher valley sides. When visible, the Proposed

Landscape Character Type / Area within 20km	Distance and Direction from nearest Turbine	Theoretical visibility of proposed wind turbines of the Development (ZTV coverage, refer to Figure 5.2) and other considerations to determine if LCT carried forward for detailed assessment
		– Development is likely to be seen in the context of uplands beyond the valley, which are altered by wind farm development. As such, significant effects on landscape character not considered likely. Not considered further.
163 – Middle Dale	Beyond 7 km	– One unit of this LCT, in Nithsdale. The ZTV indicates an intermittent pattern of visibility focused to higher valley side. When visible, the Proposed Development is likely to be seen in the context of uplands beyond the valley, which are altered by wind farm development. Woodland and tree cover in the Middle Dale will also help to reduce actual visibility. As such, significant effects on landscape character not considered likely. Not considered further.
69 – Upland River Valleys	Beyond 15 km	– Very limited visibility. Not considered further.
172 – Upland Fringe	Beyond 10 km	– Four units of this LCT within 20 km, to the east and south of the Site. Visibility is not widespread across these LCT and due to viewing distance and existing operational wind farm context in views to west from this landscape, significant effects on landscape character are considered unlikely. Not considered further.
73 – Upland Glen (Ayrshire)	Beyond 5 km	– Very limited visibility. Not considered further.
81 – Southern Uplands (Ayrshire)	Beyond 5 km	– Limited visibility and closer proximity operational wind farms have altered context. Not considered further.
82 – Southern Uplands with Forest (Ayrshire)	Beyond 5 km	– Very limited visibility. Not considered further.
74 – Upland Basin (Ayrshire)	Beyond 10 km	– Very limited visibility. Not considered further.
78 – Plateau Moorlands (Ayrshire)	Beyond 15 km	– Very limited visibility. Not considered further.
180 – Rugged Uplands	Beyond 15 km.	– The ZTV indicates an intermittent pattern of visibility, focused to Site facing hill flanks. When visible, the Proposed Development is likely to be seen in the context of more open, longer distance (>15 km) and upland views, which are altered by wind farm development. As such, significant effects on landscape character not considered likely. Not considered further.
169 – Drumlin Pastures	Beyond 15 km.	– Very limited visibility within 20 km. Not considered further.
164 – Flooded Valley	Beyond 15 km.	– Very limited visibility within 20 km. Not considered further.
161 – Pastoral Valley	Beyond 5 km	– More widespread visibility between 5 km and 20 km. Considered further.
160 – Narrow Wooded River Valley	Within 5 km	– Two units of this LCT, to the west and south of the Site. From LCT to south, the ZTV indicates limited visibility which is beyond 15 km distant. – From LCT to west, focused around the Water of Ken, the ZTV indicates more widespread visibility, from western valley side beyond 5 km. The wooded character of the valley will help to further limit actual visibility. When visible, the Proposed Development is more likely to be seen from higher valley sides, and not in direct views looking along the valley floor. In this context, effects on landscape character are unlikely to be significant. Effects associated with the most westerly extents of the Site access track, just within this LCT, will also be very local in extent. Not considered further.

Landscape Sensitivity Studies

5.6.12 DGC (2025) Wind Energy Landscape Sensitivity Study, Assessment of Larger Turbines sets out sensitivity appraisals for the LCTs within Dumfries and Galloway, including the LCT in which the site is contained. The proposed turbines are located within assessment unit 22 - Southern Uplands with Forests, specifically within the 'Ken' unit.

5.6.13 For this area the study outlines the following constraints and opportunities:

Constraints

- *"The arc of hills which includes Benbrack, Cairn and Blackcraig which form a key focus at the head of the Upper Glen (10) of the Dalwhat Water within the Ken area. The presence of the SUW and the landmark sculptures of Striding Arches add to the sensitivities of this area.*
- *The rim of open-topped rugged higher hills extending from Loch Fell (688m) north-west of the Eskdalemuir area, which are prominent in views from the Corbetts of White Coombe and Hart Fell in the Moffat Hills.*
- *The proximity of the dramatic sculptural hill of Cairnsmore of Carsphairn to parts of the Ken and Carsphairn areas.*
- *The open hills of the West Langholm AU 21, lying on the eastern edge of the Ewe Hill area, which form prominent skylines and are important in providing a backdrop to Eskdale. The contrast between the settled valleys and backdrop of hills contribute to the scenic qualities of the Langholm Hills RSA.*
- *Occasional areas of more complex landform and deeply incised valleys which are often masked by extensive forest; and*
- *Potential for cumulative effects to arise with additional wind farm development sited within the Ken, Carsphairn and Ewe Hill landscape areas."*

Opportunities

- *"The expansive scale of this Assessment Unit and its predominantly simple, gently undulating landform.*
- *The sparsely settled nature of this Assessment Unit and its distance from more populated lowland areas.*
- *Extensive productive coniferous forestry which covers a large proportion of these uplands, and which precludes a strong sense of wildness; and*
- *The relatively lower landscape value associated with much of these uplands."*

5.6.14 The area is judged to be of high-medium sensitivity for wind turbines greater the 150 m high. In the context of this study this represents one of the areas within Dumfries and Galloway with greater scope for wind farm development. With the exception of this area (LCT 22) and LCT 20 (Foothills with Forest) all other LCT are assessed as being of High sensitivity to wind turbines over 150 m in height.

Designated Landscapes

5.6.15 Designated landscapes within the study area are listed in **Table 5.3** below and shown on **Figure 5.6a**. Theoretical visibility of the Proposed Development from each designation is shown in **Figure 5.6b** and described below. As with LCTs, this is used as a means of identifying which nationally and locally designated landscapes require further assessment, and which are unlikely to be significantly affected by the Proposed Development and therefore not considered further in the assessment.

Nationally Designated Landscapes and Wild Land

5.6.16 The Site is not within any nationally designated landscapes (National Parks or National Scenic Areas), or Wild Land Areas. There are a number of designated landscapes and Wild Land Areas within the 45 km study area, as shown on **Figure 5.6**.

5.6.17 The three National Scenic Areas (NSA) across the study area are coastal and located beyond 30 km distant. There are Wild Land Areas, to the north and south-west of the study area. All these areas are over 20 km from the Proposed Development. At these distances, and when visible in outward views (and seen in the context of other operational wind farms in distant views towards the Southern Uplands) effects on the special qualities/ key attributes are unlikely to be significant.

Locally Designated Landscapes

5.6.18 There are a number of Local Landscape Areas (LLA) within the study area. LLA are landscapes designated by Councils , called Regional Scenic Areas in Dumfries and Galloway and Local Landscape Areas in East Ayrshire, refer to **Table 5.3** below.

5.6.19 As with LCT, the theoretical visibility of the Proposed Development (indicated by the ZTV coverage) is used as a means of identifying which LLA require further assessment, and which LLA can be scoped out because they are unlikely to experience significant effects on special landscape qualities/ the reasons for designation.

5.6.20 For LLA beyond 20 km from the proposed turbines, and given the nature of the Proposed Development (which will be seen in the context of other operational wind farms in distant views to the Southern Uplands, when visible) effects on the special qualities/ reasons for designation are unlikely to be significant, and these are scoped out. For other LLAs with limited theoretical visibility and/ or where the special qualities are unlikely to be significantly altered by wind farm development at the Site, these are not considered further within the assessment. **Table 5.3** below provides further detail. LLAs included within the assessment are highlighted in grey in **Table 5.3**.

5.6.21 A number of Garden and Designated Landscapes (GDL) are located across the study area. Effects on the setting of the GDL are considered further in **Chapter 6: Cultural Heritage** and are not assessed within this chapter.

Table 5.3 – Locally Landscape Areas

Landscape Designation within 20 km	**Theoretical visibility of Development (ZTV coverage) and other considerations to determine if landscape is carried forward for detailed assessment**
Thornhill Uplands Regional Scenic Area (RSA)	The proposed turbines are located within 1 km to the west of this designated landscape. Considered further.
Galloway Hills RSA	The ZTV indicates visibility from Site facing hill flanks, within 20 km, either side of the Glenkens. This is a large scale designation, so theoretical visibility is limited in this context. When visible, the Proposed Development will typically be seen in large scale upland views/ outside the RSA (beyond 7 km distant)/ which are altered by wind farm development. This is unlikely to significantly alter the reasons for designation. Not considered further.
Terregles Ridge RSA	The ZTV indicates some visibility from Site facing hill flanks, beyond 15 km to the south-east of the Site. When visible the Proposed Development will typically be seen in large scale upland views/ outside the RSA (beyond 15 km distant)/ which are altered by wind farm development. Any wind farm development at the Site is unlikely to alter role the ridge plays in providing a setting to Dumfries. This is unlikely to significantly alter the reasons for designation. Not considered further.
Uplands and Moorlands Local Landscape Area (East Ayrshire)	Limited visibility within 20 km. Operational wind farms have also altered the landscape context. Not considered further.
Doon Valley Local Landscape Area (East Ayrshire)	No theoretical visibility within 20 km. Not considered further.

Visual Baseline

5.6.22 This section describes the extent of theoretical visibility of the Proposed Development within the study area and identifies the visual receptors that were assessed. This section also introduces the representative viewpoints that were used to assess effects on visual receptors, including the reasons for their selection.

Analysis of Visibility of the Proposed Development

5.6.23 **Figures 5.2 and 5.3** show the theoretical visibility of the Proposed Development to maximum blade tip height (200 m) and candidate hub height (119 m) respectively[2].

5.6.24 Within a 5 km radius of the proposed turbines, there will be fairly widespread theoretical visibility from the higher ground and Site facing slopes, of up to nine turbines. There will also be visibility from the upper extents of the Shinnel and Dalwhat Water valleys. Other valley landforms within 5 km of the Site provide screening.

5.6.25 Within 5 km to 10 km radius the pattern of visibility is intermittent in nature, focused to the higher and Site facing slopes. This includes high ground in the Southern Uplands to the north and west and higher ground to the west of Nithsdale, to the south-east of the Site. Larger areas of coniferous forest will reduce actual visibility, where these occur.

5.6.26 Beyond 10 km, the pattern of visibility will become more intermittent. There will be more widespread areas of visibility from the higher ground to the east of Nithsdale, to the north-east and east of the Site; higher ground either side of the Glenkens to the south-west, and from the uplands between these two large valleys, to the south of the Site.

[2] Note that at the time of writing the procurement of turbines has not been undertaken and therefore the hub height of the installed turbine may change but the tip height will be no greater than 200 m.

Key Visual Receptors

5.6.27 Potential visual receptors include:

- residents at their homes or in their communities, including views from isolated properties, scattered communities or defined settlements;
- those engaged in recreational activities (e.g. hill walkers and cyclists);
- road users (including those travelling on recognised tourist routes); and
- people at their place of work, including agricultural workers.

5.6.28 People at work are generally regarded to be of lower sensitivity to changes in their view, and are not considered further in this LVIA.

Selection of Viewpoints for Assessment

5.6.29 This section sets out the viewpoints within the 45 km study area which were selected to represent and assess the visual effects of the Proposed Development. The viewpoint list is a representative selection of locations agreed with DGC and NatureScot. It is not an exhaustive list of locations from where the Proposed Development will be visible.

5.6.30 A total of 20 LVIA assessment viewpoints were selected through desk study, site work and discussions with statutory consultees. The viewpoints are all publicly accessible as advocated by GLVIA3 [3] and include:

- locations selected to represent the experience of different types of receptor;
- locations at different distances to provide a representative range of viewing angles and distances (i.e. short, medium and long distance views);
- locations which illustrate key cumulative interactions with other existing, consented and/or proposed wind farms (i.e. either in combined or successive views[4]);
- locations which represent a range of viewing experiences (i.e. static views and points along sequential routes);
- specific viewpoints selected because they represent promoted views or viewpoints within the landscape; and
- illustrative viewpoints chosen specifically to demonstrate a particular visual effect or specific issue (which could include restricted visibility in particular locations).

5.6.31 The viewpoints used to assess the visual effects are listed in **Table 5.4** below and their locations are shown on **Figure 5.2**.

Table 5.4 – LVIA Viewpoint Locations

No.	Location	Grid Reference	Approx. Distance (km) [5]	Reason for Selection
1	Colt Hill	269856, 599004	0.5	Represents views experienced from local hill summit and site of Striding Arch sculpture.
2	Bail Hill, Striding Arch	272098, 595725	0.93	Represents views experienced from local hill summit and site of Striding Arch sculpture. Viewpoint requested by DCG.
3	Cairnhead, Striding Arch	270141, 597176	1.16	Represents views experienced by recreational receptors likely to be visiting the first of the series of Striding Arch sculptures. There is parking and interpretation signage near this viewpoint.
4	Shinnelhead	272894, 599213	1.64	Represents views experienced by nearby residential receptors and recreational receptors using the forest track to the north of the site.
5	High Appin	274405, 597580	2.03	Represents recreational views from forest track and minor summit to the south-east of site. Viewpoint requested by TCC.

[3] The selection of viewpoints for LVIA should take account of the factors listed in Paragraph 6.20 of GLVIA3.

[4] Combined effects occur where the observer is able to see two or more developments from one viewpoint and successive views occur when the observer has to move to another viewpoint to see different developments.

[5] Distance between viewpoint and the nearest wind turbine of the Proposed Development.

No.	Location	Grid Reference	Approx. Distance (km) [5]	Reason for Selection
6	Benbrack, Striding Arch	268057, 597061	2.89	Represents views experienced by recreational receptors from local hill summit on the SUW and site of Striding Arch sculpture.
7	Shinnel Water Valley near Craigencoon	276201, 596727	3.45	Represents views experienced by road users and nearby residential receptors dispersed along the Shinnel Water Valley.
8	SUW near Cloud Hill	273984, 604906	6.73	Represents views experienced by recreational receptors from SUW, to south of Nithsdale.
9	Moniaive	277817, 590646	7.64	Represents views experienced by residents and recreational receptors in this settlement. Viewpoint requested by NS.
10	Auchengibbert Hill	280623, 594425	8.1	Represents views experienced by recreational receptors from minor summit within Thornhill Uplands RSA, with views to north-west looking up Shinnel Water Valley. Viewpoint requested by TCC.
11	Cairnkinna Hill	279128, 601870	8.36	Represents recreational views from minor summit north of Scaur Glen. Viewpoint requested by DCG and TCC.
12	Blackcraig Hill	264775, 606400	9.35	Represents views experienced by recreational receptors from summit. Viewpoint requested by EAC.
13	A702 Shinnel Water Valley	282685, 591957	10.86	Represents oblique views experienced by road users, as they cross the Shinnel Water Valley.
14	Cairnsmore of Carsphairn	259466, 598009	10.91	Represents views experienced by recreational receptors from popular summit within Galloway Hills RSA.
15	Crawick Multiverse	277638, 611786	14.5	Represents views experienced by recreational receptors from high point in landscape sculpture visitor attraction created by Charles Jenks, in Nithsdale near Sanquhar.
16	A713, near Stroangassel	260330, 587294	15.07	Represents views experienced by road users and recreational receptors on tourist route through the Glenkens.
17	A76, south of Closeburn	289835, 592011	17.62	Represents views experienced by road users and recreational receptors on tourist route through Nithsdale.
18	Durisdeer Rig	289721, 603703	18.47	Represents views experienced by residents and recreational receptors from small settlement on eastern valley side of Nithsdale, and within Thornhill Uplands RSA.
19	East Mount Lowther	287857, 609991	20	Represents views experienced by recreational receptors from popular summit in Lowther Hills. The summit is a promoted OS viewpoint.
20	Cairn Table	272553, 624243	25.45	Represents views experienced from summit on the eastern fringes of the Uplands and Moorlands LLA (East Ayrshire). There is a popular walking route between the summit and the settlement of Muirkirk, to the north.

Settlements

5.6.32 Settlements considered in the assessment are detailed in **Table 5.5** below. Settlements are those defined as such within the LDP. To focus on potentially significant visual effects, settlements from which there is no theoretical visibility are not considered further in this assessment (see **Figure 5.2**). In addition, settlements with limited visibility over a longer distance; where views of the surrounding landscape (including the Site) are not important to setting; and / or where it is unlikely that significant effects could occur are not considered further in the assessment.

5.6.33 Whilst not listed as a 'settlement' within the LDP, the village of Tynron (approximately 8.7 km to nearest turbine) is on the edge of the ZTV. Fieldwork has confirmed that woodland to the west of the village will screen views for most residents, looking west up the Shinnel Water Valley towards the Site.

5.6.34 The ZTV does not take account of any screening or filtering of views by buildings or vegetation, which will substantially reduce visibility from the majority of settlements. Settlements over 20 km from the Proposed Development are also scoped out of the LVIA. Beyond 20 km, and due to viewing distance, visual effects from settlements are unlikely to be significant.

Table 5.5 – Settlements within 20km Scoped In/Out of LVIA

Settlement [6] (approximate distance to nearest turbine)	Theoretical Visibility of the Proposed Development (indicated by ZTV Coverage)
Kirkconnel/ Kelloholm (13.4km)	Northern parts of the settlement on the edge of the ZTV. Limited visibility from the core of the settlement. From areas with limited visibility the Proposed Development will be seen beyond horizons which are altered by wind farm development, to the south of Nithsdale. Not considered further.
Sanquhar (12.9km)	Northern parts of the settlement on the edge of the ZTV. Limited visibility from the core of the settlement. From areas with limited visibility the Proposed Development will be seen beyond horizons which are altered by wind farm development, to the south of Nithsdale. Not considered further.
Penpont (10.9km)	The ZTV indicates very limited visibility from the settlement, with high ground to the north-west screening views towards the Site. Not considered further.
Thornhill (15.2km)	The ZTV indicates widespread visibility across the settlement. However, buildings within the settlement and mature woodland to the west, along the banks of the River Nith, will limit potential for any longer distance views west from the settlement. Not considered further.
Moniaive (7.5km)	The ZTV indicates widespread visibility from the settlement. Considered further.
St Johns Town of Dalry (18.5km)	The ZTV indicates very limited visibility from the settlement, with high ground to the north-east (east of the Glenkens) screening views towards the Site. Not considered further.
Carsphairn (15.4km)	Southern parts of the settlement on the edge of the ZTV. Limited visibility from the centre of the settlement. Not considered further.
New Cumnock (16.6km)	No theoretical visibility. Not considered further.
Brunside/ Bank Glen/ Leggate/ Connel Park (16.8km)	No theoretical visibility. Not considered further.

Residential Visual Amenity Assessment

5.6.35 Views from residential properties within 3 km of the nearest wind turbines of the Proposed Development are assessed as part of the RVAA. The RVAA is presented in **Technical Appendix 5.3**.

Routes

5.6.36 Visibility from a route is not uniform along its entire length. This is because views of the surrounding landscape change as one moves along the route depending on the direction of travel, surrounding topography, buildings, structures, tree cover and vegetation pattern alongside the route. Theoretical visibility of the Proposed Development from key routes across the 45 km study area is illustrated in **Figure 5.2 and 5.3**. They include a hierarchy of roads, railways and recreational routes (promoted long distance footpaths, Core Paths and cycle routes). Road and rail routes tend to use low lying areas or valleys and passes, but walking routes are more variable and can pass over hills and along ridges.

5.6.37 Based on an analysis of theoretical visibility and potential views, **Table 5.6** below provides information on which routes were carried forward for detailed assessment. Where there is limited theoretical visibility; or where actual visibility from a route is likely to be limited due to localised screening, these routes are not considered further in this LVIA, as the likelihood for significant sequential effects is limited. Beyond 20 km, and due to viewing distance, visual effects from routes are unlikely to be significant.

Table 5.6 – Routes within 20 km Scoped In/Out of LVIA

Route	Theoretical Visibility of the Proposed Development (indicated by ZTV coverage)
Roads	
A76 (This road follows a similar route to the Kilmarnock to Dumfries Railway Line).	This route passes through areas of theoretical visibility, particularly to the south of Thornhill as represented by Viewpoint 17. This is beyond 10 km from the Proposed Development. Long sections of the route are outside the ZTV, as rising ground to the west of Nithsdale will largely screen views. As such, significant sequential effects on the route as a whole are considered unlikely. Not considered further.
A702	The ZTV indicates some sections of the route, within 10 km, are within the ZTV Considered further.
A712	Very limited theoretical visibility at well beyond 15 km distant. As such, significant sequential effects on the route as a whole are considered unlikely. Not considered further.

[6] Settlements as defined in LDP.

Route	Theoretical Visibility of the Proposed Development (indicated by ZTV coverage)
A713	This route passes through areas of theoretical visibility, particularly to the south of Carsphain as represented by Viewpoint 16. This is approximately 14 km from the Proposed Development. Long sections of the route are outside the ZTV, as rising ground to the east of the Glenkens will largely screen views. As such, significant sequential effects on the route as a whole are considered unlikely. Not considered further.
Recreational Routes	
Southern Upland Way	Visibility within 5 km Considered further
Core Paths within 5 km	
Core Paths within 5 km are mapped on **Figure 5.2b and c**.	Visibility within 5 km Considered further

Identification of Developments to be included in the Cumulative Assessment

5.6.38 In line with NS guidance, the scope for the assessment of cumulative landscape and visual effects included a review of wind farms within an initial 60 km radius search area from the Proposed Development, to identify the distribution of wind energy development in the wider area.

5.6.39 The assessment of cumulative effects focuses on developments that are likely to give rise to significant cumulative effects and concentrates on the relationship between the Proposed Development and other operational[7], under construction, consented and proposed developments (i.e. developments with a valid application or awaiting determination following appeal/public inquiry).

5.6.40 The detail of the assessment focuses on schemes within 20 km of the Proposed Development because of the limited scope for significant cumulative effects beyond this distance, based on professional judgement. Other wind farms within 45 km are listed in **Table 5.7** below and shown on **Figure 5.7a** and the wirelines in **Figures 5.11 to 5.31** to illustrate the wider cumulative context. Other wind farms within 20 km are shown on **Figure 5.7c**.

5.6.41 Wind energy developments included in the cumulative assessment were selected as follows:

- single wind turbines of ≥50 m blade tip height within a 5 km radius of the proposed turbines; and
- wind farms (e.g. clusters of 2 or more wind turbines) with wind turbines of ≥50 m blade tip height within a 45 km radius of the proposed turbines.

5.6.42 Proposals that had not yet progressed beyond Scoping stage are mapped for context (see **Figure 5.7a** and **Figure 5.7c**), though were not considered within the assessment. This is because of the level of uncertainty associated with projects at this stage.

5.6.43 A cut-off date of 24th Feb 2025 was applied for the inclusion of developments within the cumulative assessment. These developments are listed in **Table 5.7** below and shown on **Figure 5.7a** and **Figure 5.7c.**

Table 5.7 – Other Wind Farm Developments included within Cumulative Assessment[8]

Name	Status	Tip Height (m)	No. of turbines	Distance (km) [9]
Euchanhead	Application Submitted	230	21	0.5
Lorg	Application Submitted	200	10	1.6
Sanquhar II	Consented	200	44	1.9
Manquhill	Consented	200	8	3.4
Cornharrow	Consented	200	7	3.5
Wether Hill	Operational	93	14	3.5
Whiteside Hill	Operational	121.2	10	5.8
Knockaughlie Hill	Design/Scoping	150	2	5.9
Cloud Hill	Application Submitted	180	11	6.2
Troston Loch	Consented	149.9	14	6.9
Sanquhar Six	Consented	130	6	7.5
Afton	Operational	120	27	7.7
Windy Rig	Operational	125	12	7.8
Hare Hill Repowering	Design/Scoping	250	27	8.1
Sanquhar Community Windfarm	Operational	130	9	8.2

[7] Operational wind farms are part of the current baseline, and are considered in the primary assessment as well.

[8] Scoping stage schemes have been mapped, but have not been considered in the detail of the cumulative assessment.

[9] This is an approximate distance taken between the closest turbine in each development.

Name	Status	Tip Height (m)	No. of turbines	Distance (km) [9]
Twentyshilling Hill	Operational	140	9	8.3
Windy Standard I	Operational	53.3	36	8.4
Rowancraig	Application Submitted	180	6	8.7
Windy Standard I Repowering	Application Submitted	200	8	8.8
Margree	Consented	200	9	8.8
Shepherds Rig	Design/Scoping	200	13	8.8
Hare Hill Phase 2	Operational	91	35	9.7
Herds Hill	Application Submitted	149	3	9.7
Divot Hill	Consented	200	9	9.9
Glenshimmeroch	Application Submitted (Previously Consented)	200	10	10.0
Windy Standard II	Operational	120	30	10.1
Quantans Hill	Application Submitted	200	14	10.3
Sandy Knowe	Operational	125	24	10.8
Fell	Consented	200	9	11.2
Pencloe	Under Construction	149.9	19	11.2
Hare Hill Phase 1	Operational	63.5	20	11.6
Blackcraig Hill	Operational	110	23	11.6
Sandy Knowe Extension	Application Submitted	149.9	6	11.8
Windy Standard III	Consented	180	20	12.0
South Kyle	Operational	149.5	50	13.2
Knockman Hill	Consented	81	5	13.8
Enoch Hill 2	Consented	149.9	2	14.1
Blackwood (East Ayrshire)	Design/Scoping	200	7	14.1
Monquhill	Design/Scoping	145	4	14.1
Pencloe Extension	Design/Scoping	180	5	14.2
Enoch Hill	Under Construction	149.9	16	15.2
Collieston	Design/Scoping	230	8	15.5
Garcrogo	Design/Scoping	200	9	15.7
Benbrack Variation	Under Construction	149.9	18	16.3
Glenmuckloch	Consented	149.9	8	16.5
Glenmuckloch	Design/Scoping (Previously Consented)	250	6	16.5
Knocknalling	Design/Scoping	150	14	16.7
Lethans	Consented	220	22	17.2
South Kyle 2	Design/Scoping	220	17	17.7
Lethans Extension	Consented	251	10	18.4
Lanehead	Design/Scoping	149.9	3	19.9
Mochrum Fell	Operational	149.9	7	20.4
North Kyle Energy Project	Under Construction	149.9	49	20.7
Greenburn Wind Park	Application Submitted (Previously Consented)	180	14	21.0
Overhill	Appeal/Public Inquiry	180	10	22.1
Dalswinton	Operational	120	15	22.1
Kennoxhead Extension II	Consented	220	8	22.6
Harestanes West	Application Submitted	220	12	23.1
Drum	Design/Scoping	180	8	23.1
Watchman Energy Park	Design/Scoping	240	16	23.2
Kennoxhead Extension	Consented	180	8	24.3
Kennoxhead	Operational	180	19	24.6
Breezy Hill	Design/Scoping	149.9	26	25.5
Daer	Application Submitted	180	17	25.8
Harestanes	Operational	125	68	26.2
Rigmuir	Application Submitted	149.9	3	26.4
West Andershaw	Design/Scoping	250	11	26.8
Polquhairn	Consented	145	9	27.3
Knockkippen	Application Submitted	180	12	27.7
Harestanes South	Application Submitted	200	8	27.7
Dersalloch	Operational	125	23	27.8
Rivox	Application Submitted	230	29	28.4
Lion Hill	Consented	126.5	4	28.7
Andershaw	Operational	140	11	28.7
Middle Muir	Operational	149.9	15	28.7
Sclenteuch	Application Submitted	200	9	29.0
Crookedstane	Consented	126.5	4	29.0
Clyde	Operational	125	152	29.2
Minnygap	Operational	125	10	29.4
Hagshaw Energy Cluster Western Expansion	Design/Scoping	230	72	30.5
Knockshinnoch	Consented	126.5	2	30.6
Bodinglee	Application Submitted	250	37	30.9

Name	Status	Tip Height (m)	No. of turbines	Distance (km) [9]
Galawhistle (Section 36)	Operational	121	22	31.2
Carrick	Appeal/Public Inquiry	200	13	31.7
Hagshaw Hill Repowering	Under Construction	200	14	31.7
Hare Craig	Consented	230	8	32.0
Hagshaw Hill Extension	Operational	80	20	32.1
Knockcronal	Appeal/Public Inquiry	200	9	32.1
M74 West Renewable Energy Park	Application Submitted	200	22	32.3
Cumberhead	Under Construction	180	14	33.3
Back Fell	Design/Scoping	200	14	33.5
Douglas West Extension	Consented	200	13	33.6
Cumberhead West	Consented	200	21	33.8
Bankend Rig III	Application Submitted	250	10	33.8
Nutberry	Operational	115	6	34.1
Douglas West	Operational	149.9	13	34.3
Bankend Rig	Operational	76	11	34.4
Dalquhandy	Operational	149.9	10	34.5
Lairdmannoch	Design/Scoping	180	9	34.5
Bankend Rig Extension	Application Submitted	250	3	34.8
Priestgill	Consented	200	7	35.5
Mill Rig	Consented	250	6	36.2
Dungavel	Operational	120	13	36.5
Clyde Extension	Operational	142	54	37.0
Kype Muir Extension	Under Construction	200	15	37.0
Blair Hill (formerly Cairnsmore)	Design/Scoping	250	22	37.1
Craiginmoddie	Application Submitted	200	14	37.4
Hallsburn Farm	Application Submitted	149.9	3	38.0
Little Gala	Appeal/Public Inquiry	149.9	6	38.2
Auchrobert	Operational	132	12	38.8
Kype Muir	Operational	132	26	38.9
Grayside	Application Submitted	200	15	39.3
Birkhill	Consented	99.9	2	39.6
Broken Cross	Operational	149.9	10	40.0
Hadyard Hill	Operational	110	51	40.5
Whitelaw Brae	Under Construction	133.5	14	40.8
Scoop Hill Community	Appeal/Public Inquiry	250	60	41.0
Low Drumclog	Application Submitted	180	3	42.3
Mossmulloch	Application Submitted	200	5	42.9
Calder Water	Operational	145	13	43.0
Glenvernoch	Application Submitted	200	13	43.4
Oliver Forest	Application Submitted	200	7	43.8
Kirk Hill - Kirkoswald	Operational	115.5	8	44.1
Balgray	Design/Scoping	230	7	44.1
West Browncastle	Operational	126.5	12	44.3

Current and Future Baseline

5.6.44 There are a number of operational wind farms located across the study area, as listed in **Table 5.7** and shown on **Figure 5.7a** and **Figure 5.7c**. Operational wind farms are part of the current baseline, and cumulative interactions with these wind farms are therefore considered as part of the 'primary' assessment as described in the methodology (**Technical Appendix 5.1**).

5.6.45 To consider potential future cumulative effects, it is also necessary to assess the effects of the addition of the Proposed Development into a speculative future baseline. Given the varied status, and therefore certainty, associated with un-built wind farms across the study area, the LVIA also reports on two future baseline scenarios:

- **Scenario 1**: higher level of certainty: the addition of the Proposed Development to a landscape with operational, under construction and consented wind farms; and
- **Scenario 2**: lower level of certainty: the addition of the Proposed Development to a landscape with operational, under construction, consented, undetermined valid planning applications and appeal stage schemes.

5.6.46 It should be noted that this baseline situation is constantly changing, and there may be changes to the wind energy developments listed in **Table 5.7** between carrying out the assessment, the submission and determination of the application. Unless there are substantial changes to proposals that will materially alter the pattern of cumulative development it is considered that the cumulative assessment undertaken will remain relevant.

5.6.47 Although all these wind farms are considered in the cumulative assessment, the assessment focuses on the relationship of the Proposed Development with the closest wind farms or groups of wind farms. For the cumulative assessment, these include:

- North Wind Farm Group – refer to **Figure 5.8a** for scenario 1 comparative ZTV and **Figure 5.8b** for scenario 2 comparative ZTV;
- West Wind Farm Group – refer to **Figure 5.9a** for scenario 1 comparative ZTV and **Figure 5.9b** for scenario 2 comparative ZTV; and
- South Wind Farm Group – refer to **Figure 5.10a** for scenario 1 comparative ZTV.[10]

5.7 Implications of Climate Change

5.7.1 The summary of the relevant climate change projections using the UK Climate Change Projections 2018 (UKCP18) are):

- temperatures are projected to increase, particularly in summer;
- winter rainfall is projected to increase and summer rainfall is most likely to decrease;
- heavy rain days (rainfall greater than 25 mm) are projected to increase, particularly in winter;
- near surface wind speeds are expected to increase in the second half of the 21st century with winter months experiencing more significant effects of winds; however, the increase in wind speeds is projected to be modest; and
- an increase in frequency of winter storms over the UK.

5.7.2 In summary, the projections highlight that summer and winter temperatures are likely to be greater than the current baseline (greater for summer), with winter rainfall increasing and summer rainfall decreasing. The Landscape Institute's Position Statement on Climate Change acknowledges that changes in average temperatures, precipitation and extreme weather events will have an effect on the landscape. However, whilst a change in rainfall and rising temperatures are anticipated, it is not considered that this will appreciably change the baseline landscape conditions. Mitigation associated with reducing climate change is likely to be a more noticeable change in the landscape.

5.8 Future Baseline in the Absence of the Proposed Development

5.8.1 In the absence of the Proposed Development, it is likely that the land will continue under the same land use, and the character of the Site is unlikely to significantly change. However, the landscape and visual amenity of the study area is likely to be influenced by a number of 'forces for change' including further wind energy development in the surrounding context.

5.8.2 Forces for change are those factors affecting the evolution of the landscape and which may affect the perception of the study area in the near or distant future. Although prediction of these is necessarily speculative, those of particular relevance are discussed below.

5.8.3 Wind farm development (including the repowering of existing schemes) is a clear force for change and is likely to continue. **Figure 5.7a** illustrates the location and extent of operational, consented and proposed wind farms within the study area. In addition, there are an increasing number of operational, consented and proposed domestic wind turbines of varying heights and rotor diameters, located within the surrounding landscape. As farmers and landowners diversify income and seek opportunities to generate energy for domestic and commercial use, interest in this type of development may continue.

5.8.4 Agriculture and forestry within the study area, including land management practices, pastoral grazing and commercial forestry are likely to remain important land uses. Other land uses may include settlement expansion and reinforcements to the electricity grid.

5.9 Embedded Mitigation

5.9.1 During construction, mitigation measures such as arrangements for vegetation and soil removal, storage and replacement and the restoration of disturbed areas after construction will be detailed in a Construction Environmental Management Plan (CEMP). The CEMP will be produced in accordance with the standard planning conditions. An Outline Construction Environmental Management (CEMP) has also been prepared and is included in **Technical Appendix 4.1**.

[10] No proposed wind farms are located within the South Wind Farm Group.

5.9.2 During operation, landscape and visual mitigation measures are largely embedded in the design process, as described in **Chapter 3**. All effects in the following operational landscape and visual assessment are therefore considered to be residual.

5.10 Assessment of Effects

5.10.1 The assessment of effects is based on the project description as outlined in **Chapter 4**.

Construction Effects

Sources of Effects during Construction

5.10.2 During the estimated 18 month construction phase, there will be short-term landscape and visual effects arising from the presence of partially constructed infrastructure and the undertaking of construction activities on the Site, including the establishment of the Site access track. Effects occurring during the construction phase are reversible unless otherwise stated, as construction works will cease on completion. Some effects may be longer lasting e.g. creation of new landform such as turbine platforms, or borrow pits which will remain as permanent features.

5.10.3 The changes arising from the construction of the Proposed Development will be primarily associated with:

- the introduction of construction activity and vehicular/personnel movements around the Site the Site access track and local roads;
- the potential need for lighting during construction if work extends into hours of darkness;
- changes to the landform and disturbance to surface vegetation (including areas of forestry felling) at borrow pit locations, construction compounds, substations, turbine bases, and along new and upgraded access track roads;
- the excavation of trenches for cables adjacent to Site tracks;
- the construction and use of construction compounds; and,
- the introduction of tall structures including turbines, and the use of cranes.

5.10.4 Most of the effects which will occur during the construction phase will be short-term and largely reversible, limited to the Site, along the Site access track and the immediate surroundings from which construction activity may be perceptible. The main exceptions to this are the permanent changes to landform, for example through excavation of borrow pits and creation of development platforms, and the construction and erection of the turbines. The landscape and visual effects arising from the presence of partially constructed turbines, and the cranes used to do this, will be comparable to the operational effects.

Potential Landscape Effects during Construction

5.10.5 Potential effects on the landscape character and resources of the Site are considered in **Table 5.8** below. Landscape effects during construction will be largely limited to the host LCT (Southern Uplands with Forest) in which the proposed turbines and the majority of the Site access track are located. A short section of the most westerly extents of the Site access track is located in the Narrow Wooded River Valley LCT.

5.10.6 Effects beyond the extents of the Site will be indirect and largely related to the construction of the partially erected turbines. As such, effects on the wider LCT are not considered to be any greater than operational effects, and therefore have not been assessed here.

Table 5.8 – Construction Effects on the Site

The Site
The Site is located approximately 6.2 km to the north-west of Moniaive. It incorporates two ridgelines centred on the valley of Appin Burn. A patchwork of managed coniferous forestry covers large portions of the Site, with other landcover comprising moorland at Colt Hill and the along the higher ridges to the north and south of the Site. Some small areas of improved grassland populate the valley floor adjacent to Appin Burn, transitioning to larger pastoral fields as the valley opens towards Auchenbrack further east. With regard to hydrology, Appin Burn and its associated small tributaries generally flow south-east towards the Shinnel Water Valley and the River Nith. The settlement pattern around the Site is relatively low density. There is a property to the north at Shinnelhead and two properties at High Appin and Appin Lodge are located adjacent to the eastern site boundary, while farms and properties are dispersed along the minor road network to the east at Auchenbrack and towards Tynron. The Site will be accessed via existing forest tracks, and new sections of track, to the west, linking into the Water of Ken Valley.
Sensitivity: Given the type of landcover (coniferous forestry) and larger-scale landform and upland character of the Site, the susceptibility to change is judged to be medium. The site is not designated, indicating a lower landscape value. **The overall sensitivity is judged to be Medium.**

The Site
Magnitude of Change and Significance of Landscape Effects: Construction activities will result in direct landscape effects on the Site and along the proposed access track to the west. Changes primarily relate to excavations and track construction; disturbance to land cover (coniferous forest and moorland); the presence of tall cranes and partially built towers whilst turbines are being erected; and construction activity including the movement of construction vehicles and plant and construction compounds and storage areas. There will therefore be large scale changes to the Site relating to construction activity including the removal/ clearance of features and disturbance to landcover (mainly coniferous forestry and moorland); introduction of new features (turbines and ancillary infrastructure); additional movement and activity through construction vehicles and plant; as well as a perceived change from an area of coniferous forest/ upland moorland to an active construction site. Site access will be taken via forest tracks to the west of the Site. There will be some localised disturbance associated with vegetation clearance, earthworks, new sections of track and water crossings to provide suitable access to the Site. The scale of change on the Site is therefore judged to be large. The geographic extent of these changes will be at the Site level and is therefore judged to be small. The construction works are expected to last approximately 18 months, so will be temporary and short term. The level of reversibility will be varied, from fully reversible changes associated with ground disturbances (albeit that vegetation will take some time to recover) to irreversible changes associated with infrastructure that forms part of the operational scheme. **Given the large scale of change, small geographical extent, short-term and reversible to irreversible nature of effects, overall the magnitude of change is judged to be high. Taking account of the medium sensitivity, this will result in a Major (significant) landscape and temporary effect.**

Potential Visual Effects during Construction

5.10.7 In terms of visual effects during the construction phase, beyond those experienced at the Site level where low-level construction activity will be apparent in certain views, these will largely relate to views of tall cranes (potentially with lights if present at night) and turbine construction experienced from the wider study area. These effects will be transient and change throughout the construction period as wind turbines are gradually constructed in sections. As such, visual effects during the construction phase are unlikely to exceed the level of effect associated with operational visual effects and are not assessed separately.

Residual Construction Landscape and Visual Effects

5.10.8 The assessment of effects above assumes all construction-related, best practice, mitigation measures are implemented, therefore the residual effects arising from construction will remain as identified in the section above, a temporary effect of major significance on landscape.

5.10.9 The re-establishment of ground level vegetation will take approximately three to five years, depending on the vegetation and soils, and levels of effect will decline over this period.

Operational Effects

5.10.10 The main likely effects of the operational Proposed Development on the landscape will be the permanent changes to the landform/ landcover, and those associated with the presence of the wind turbines and ancillary infrastructure including access tracks.

Operational Effects on the Fabric of the Site

5.10.11 This section describes the operational effects resulting from the Proposed Development on the landscape fabric of the Site and the LCTs which were identified as requiring detailed consideration in **Table 5.9**. Further information on key characteristics is provided in the tables below.

5.10.12 All operational effects are considered to be long-term, reversible, and adverse unless stated otherwise.

Table 5.9 – Operational Effects on the Site

The Site
Location and Baseline Description The Site is described in **Table 5.8** above.
Sensitivity: **The overall sensitivity is judged to be Medium.**
Magnitude of Change and Significance of Landscape Effects: The Site is largely contained within the Southern Uplands with Forest LCT (178), around a forested valley at the head of the Appin Burn. The Site access track will partially follow existing forest tracks to the west of the Appin Burn Valley, with a short section of the most westerly extents of the access track within the Narrow Wooded Valley LCT (160), in the Water of Ken Valley. Direct operational effects on the landscape of the Site will be introduced through the presence of nine turbines (with a maximum tip height of 200 m) and associated infrastructure, including access tracks and a substation, as well as the permanent changes associated with borrow pits. The Site will change in character from a forested valley to a forested valley with a wind farm. Operational access along the Site access tracks will be similar in nature to operational access along a forestry track (the majority of which follow existing forest tracks). Landscape mitigation and habitat enhancement including ditch blocking, riparian tree planting, pond creation, and restoration of native woodland will enhance the existing characteristics of the Site. At the operational phase there will be a large scale change to the Site relating to the introduction of new features including turbines and associated infrastructure (including access tracks, borrow pits, hard standings and a substation). The geographic extent of these changes will be at the Site level and is therefore judged to be small.

The Site
Taking account of the medium sensitivity, this will result in a Major (significant) landscape effect.

Operational Effects on Landscape Character

5.10.13 LCTs within 45 km of the Proposed Development are illustrated on **Figure 5.5a**, with theoretical visibility from those LCTs illustrated on **Figure 5.5b**. The tables below describe the potential effects on landscape character resulting from the Proposed Development during the operational phase. Consideration is also given to potential cumulative effects on the landscape, arising in conjunction with other existing, consented, and/or proposed wind farms.

5.10.14 The assessments set out below are focussed on those LCTs where potentially significant effects are considered likely, as detailed in **Table 5.2**. Operational effects are considered long-term, reversible, and adverse unless otherwise stated.

Table 5.10 – Operational Effects on LCT 178 – Southern Uplands with Forest

178 - Southern Uplands with Forest
Location and Baseline Description: The proposed turbines and the majority of the proposed Site access (which links to the Water of Ken Valley to the west) are located in this LCT unit. The key characteristics, as identified in the NatureScot LCT description, are as follows: – *"Large, smooth dome-shaped hills with large scale dark green forests on slopes and over lower summits.* – *Predominantly simple, gently rolling landform.* – *Some areas of more complex and smaller-scale landscapes, with steep slopes enclosing heads of valleys and/or where uplands remain open.* – *Changing landscapes with large scale forestry operations and wind farm development.* – *Forested areas dominated by Sitka Spruce, interspersed with mixed conifers and broadleaf planting, and undergoing felling and replanting in large coupes.* – *Wind farms are a key characteristic in some areas.* – *Expansive scale."* This LCT Unit contains Wether Hill and Hare Hill Wind Farms (to the south and north respectively - refer to **Figure 5.7c**).
Sensitivity: The large scale landform, characteristic coniferous commercial forest cover and influence of wind farms indicate a lower susceptibility to the type of development proposed. In terms of value, the LCT is largely located outside of any designated landscapes, indicating a lower value. **The overall sensitivity is judged to be low.**
Magnitude of Change and Significance of Landscape Effects: There are two units of this LCT within 20 km of the Proposed Development, to the south of Nithsdale, and west of the Site around Carsphairn Forest. The proposed turbines are located within the unit of this LCT to the south of Nithsdale. The ZTV indicates limited visibility from the unit to the west, around Carsphairn Forest, which is scoped out of the following assessment. The following assessment focuses on the unit in which the development is proposed (the 'host' LCT unit). The Proposed Development will introduce nine turbines and associated access tracks and ancillary infrastructure (including a substation) into this unit. There will also be direct effects associated with the proposed Site access track, which links the Site to the Water of Ken Valley to the west. The proposed Site access will use sections of existing forest track (which will require upgrading and widening in places) plus some new sections of track. This will result in direct changes to the landscape fabric, including changes to the landcover (mainly through the loss of areas managed for coniferous forest) and changes to the terrain. The topography across the Site is very steep in places, which will require a level of cut and fill to accommodate access tracks and turbine hardstandings. Operational landscape effects on the Site are discussed in further detail in **Table 5.9**, and will result in a large scale, but local in extent level of landscape change. In terms of wider effects on the landscape character of the host LCT unit, the ZTV indicates widespread visibility from this unit, within approximately 3 km. This is a large scale unit, which extends beyond 10 km to the north and south of the Site. The wider pattern of theoretical visibility is more intermittent, focused to higher areas of Site facing hill flanks. Coniferous forest cover is a key landscape characteristic of this LCT, and large areas cover the unit. Where this is quite mature it will provide screening/filtering and limit views from within the unit towards the Proposed Development (subject to the management regimes of this land cover). Where there are breaks in forest cover, and from the open higher ground, operational wind farm development within the LCT is apparent, in close to longer distance views in multiple viewing directions. This includes the operational Wether Hill Wind Farm, to the south of the host unit, and Hare Hill Wind Farm, to the north of the host unit. As such, wind farms have altered the character of the host unit and this is recognised in the LCT description. In summary, there will be a large scale change at the Site level and from more open (and upland) areas within approximately 3 km of the Site. Beyond this distance, the scale of change will reduce along with the extent of open areas with visibility. **The overall magnitude of change will be high, within the Site and more open areas within 3 km, reducing to medium and lower with distance from the Site. Taking account of the low sensitivity, this will result in Moderate (significant) landscape effects within 3 km, reducing to Minor and below (not significant) beyond.**
Scenario 1 (including consented) assessment: Under this scenario, consented wind farms will increase the influence of wind farms across the host LCT to the north and south. In the more immediate context this will include Sanquhar II, to the north of the Site; and Manquhill and Cornharrow, which will read as a larger wind farm cluster with the operational Wether Hill, to the south-west. Coniferous forest cover and the undulating terrain, which are characteristic of this LCT, will help to locally screen or filter views and break up the more widespread influence of wind farms across this landscape. The Proposed Development will further increase the influence of wind farms across the Site and within the more immediate surrounding context (more open

178 - Southern Uplands with Forest
and upland areas within 3 km). Beyond approximately 2 km to the north the consented Sanquhar II will exert the stronger influence over the landscape. Similarly, beyond approximately 3 km to the south the consented Manquhill and Cornharrow Wind Farms will exert the stronger influence over the landscape. **As such, effects under this scenario will be similar to those identified in the primary assessment. The overall magnitude of change will be high, from the Site and more open areas within 3 km, reducing to medium and lower with distance from the Site. Taking account of the low sensitivity this will result in Moderate (significant) landscape effects within 3 km, reducing to Minor and below (not significant) beyond.**
Scenario 2 (including consented and proposed) assessment: The key change under this scenario will be through the application stage Euchanhead and Lorg, which will introduce wind farms in close proximity to the north and north-west of the Site respectively. These schemes will exert a direct and stronger influence over the landscape to the immediate north-west of the site. Nevertheless, and from the open and higher ground within 3 km of the Site the Proposed Development will continue to result in direct effects on landscape character and contribute to the increased influence of wind farms across this landscape. **As such, effects under this scenario will be similar to those identified in the primary assessment. The overall magnitude of change will be high, from the Site and more open areas within 3 km, reducing to medium and lower with distance from the Site. Taking account of the low sensitivity this will result in Moderate (significant) landscape effects within 3 km, reducing to Minor and below (not significant) beyond. To the immediate north-west of the Site, it is recognised that Lorg and Euchanhead Wind Farms are likely to exert a stronger influence over the landscape.**

Table 5.11 – Operational Effects on LCT 166 – Upland Glens

LCT 166 – Upland Glens
Location and Baseline Description: There are no turbines or ancillary features within this LCT. The proposed turbines are located to the west of the Shinnel Valley unit of this LCT. The key characteristics, as identified in the NatureScot description, are as follows: – *"Deep u-shaped (and partially v-shaped) valleys with steep sides and narrow flat valley floors.* – *Enclosed and often narrow, contained by steep sides which rise to form irregular ridgelines.* – *Features of traditional upland farming, with isolated farmsteads surrounded by trees, small to medium sized fields and enclosures with drystone dykes, fanks, stells and shelterbelts.* – *Rough grassland and moor above improved pastures.* – *Medium scale conifer forests (or parts of larger forests) on the glen sides.* – *Single track road access."* In terms of operational wind farms, there are no operational wind farms in this LCT, however the detailed landscape description notes "*large scale wind farms are occasional features on the upland backdrops and skylines of some of the glens, although set back in a neighbouring Landscape Character Type*."
Sensitivity: The terrain and isolated nature of this LCT indicates a higher susceptibility to the type of development proposed. The upland nature of this landscape is altered in places by wind farm development in neighbouring LCTs, which somewhat lowers susceptibility. In terms of value, large parts of the LCT are within the Thornhill Uplands RSA, indicating a higher value. **The overall sensitivity is judged to be medium-high.**
Magnitude of Change and Significance of Landscape Effects: There are five units of this LCT within 20 km of the Proposed Development. None of the proposed turbines are located in this LCT, so any effects will be indirect. The ZTV indicates more widespread visibility from the units of this LCT along the Shinnel Water and Dalwhat/ Castlefairn Water, in the glens to the north and south of the Site. Landscape effects on both these units are considered in more detail below. From the Scaur Water unit, to the north-east, visibility is very limited to the upper northern valley sides, so landscape effects are unlikely to be significant. From the two units to the north of Nithsdale, visibility is also focused to upper valley sides. Both of these units are beyond 10 km with intervening operational wind farms between. As such, effects on landscape character from these units is unlikely to be significant. From the Dalwhat/ Castlefairn Water unit, theoretical visibility is focused to the southern upper valley sides. Smaller blocks of coniferous forest may reduce actual visibility in places, but the glen is quite open in character, so actual visibility will be similar. When visible, the Proposed Development will generally be seen behind enclosing horizons in more oblique views to the north, rather than in direct views along the valley. The operational Wether Hill Wind Farm is visible in direct views from parts of the Dalwhat Water valley, in views to the north-west. As such, and in terms of effects on landscape character, further and somewhat limited (and oblique) views of wind farms, behind enclosing horizons to the north of this unit, will result in a scale of change no greater than small. The geographical extent of these changes will also be small. From the Shinnel Water Valley, the ZTV indicates more widespread visibility, particularly from the north-western extents of the unit between Appin Lodge and north of Tynron. Actual visibility will be somewhat reduced by areas of mixed and deciduous woodland, along the floor of the valley. When visible, the Proposed Development will be seen in more direct views, at the head of the glen, as demonstrated by Viewpoint 7: Shinnel Water Valley near Craigencoon. North of Appin Lodge, areas of coniferous forest and the ridge to the north of the Site, will limit views of the Proposed Development (refer to Viewpoint 4: Shinnelhead). As noted in the detailed description of the LCT "*large scale wind farms are occasional features on the upland backdrops and skylines of some of the glens, although set back in a neighbouring Landscape Character Type*." The Proposed Development will introduce views of a wind farm into the Shinnel Water Valley, which will be a notable change.

LCT 166 – Upland Glens
From the Shinnel Water Valley, between Appin Lodge and north of Tynron (approximately 8 km radius), and when factoring in screening/filtering provided by characteristic woodland cover, a medium magnitude of landscape change is predicted. Taking account of the medium-high sensitivity this will result in Moderate (significant) landscape effects. From other areas of the LCT, an overall magnitude of change no greater than small is predicted, resulting in Minor (Not Significant) effects. There will be no significant landscape effects on any other Upland Glen LCT units.
Scenario 1 (including consented) assessment: Under scenario 1 the key change will relate to the consented Sanquhar II. This wind farm is located to the north of the Site, to the north (and extending north-west) of the Shinnel Water Valley. In certain views along this valley, the Proposed Development will be seen in the context of this scheme, and horizons looking north-west up the valley which are altered by wind farms. The Proposed Development will extend the influence of wind farms seen at the head of the Shinnel Water Valley, bringing turbines closer to the LCT from certain locations, with associated indirect effects on landscape character. From the Dalwhat Water Valley, the consented Manquhill and Cornharrow will read as a larger wind farm cluster with the operational Wether Hill, when visible in views looking north-west up this valley. When visible, the Proposed Development will read as a separate scheme seen in more northerly views, with associated indirect effects on landscape character. However, the rising landform to the north of this valley will limit visibility of the Proposed Development, so the opportunity for combined views is more limited. **From the Shinnel Water Valley, between Appin Lodge and north of Tynron, a medium magnitude of landscape change is predicted. Taking account of the medium-high sensitivity this will result in Moderate (significant) landscape effects. Beyond this, effects on the Upland Glen LCT will fall below the threshold of significance (Minor or below).**
Scenario 2 (including consented and proposed) assessment: The key change under this scenario will be through the application stage Euchanhead and Lorg, which will introduce wind farms in close proximity to the north-west of the Site. From the Shinnel Water Valley the Proposed Development will be seen in front of these schemes, when visible. As the Proposed Development will bring turbines closer to the LCT and intensify the influence of wind farms (with associated indirect effects on landscape character) a similar scale of landscape change is predicated as assessed in the primary and scenario 1 assessment. From the Dalwhat Water Valley, and when visible, the Proposed Development is likely to read as an extension (seen alongside) the application stage Lorg Wind Farm. However, the rising landform to the north of this valley will limit visibility of the Proposed Development, and the opportunity for combined views of these schemes. **From the Shinnel Water Valley, between Appin Lodge and north of Tynron, a medium magnitude of landscape change is predicted. Taking account of the medium-high sensitivity this will result in Moderate (significant) landscape effects. Beyond this, effects on the Upland Glen LCT will fall below the threshold of significance.**

Table 5.12 – LCT 177 - Southern Uplands

LCT 177 – Southern Uplands
Location and Baseline Description: No features of the Proposed Development are located in this LCT. The key characteristics, as identified in the NatureScot description, are as follows: – *"Large, smooth dome/conical shaped hills, predominantly grass-covered.* – *Open and exposed character except within incised valleys.* – *Dramatically sculpted landforms and awe-inspiring scale.* – *Distinctive dark brown/purple colour of heather on some of the higher areas.* – *Pockets of woodland in incised valleys.* – *Stone dykes occasionally define the lower limit.* – *Legacy of lead and other mining activity, with extensive archaeological remains around the former mining village of Wanlockhead.* – *Wind farms locally characteristic, away from the more dramatic, scenic and sculptural slopes and skylines."* In terms of operational wind farms, there are a number of schemes in the units to the south of Nithsdale, including Whiteside Hill and Sanquhar Community Wind Farms, to the north of the Site, and Windy Rig and parts of Windy Standard I Wind Farm, to the west.
Sensitivity: This is a large scale and sparsely settled landscape, and areas are altered by wind farm development which is recognised in the LCT description. This lowers susceptibility to the type of development proposed. There are areas of the LCT with heightened susceptibility, with more dramatic, scenic and sculptural landform. In terms of value, parts of the LCT are within locally designated landscapes including the Galloway Hills RSA and the Thornhill Uplands RSA, which increases value. **On balance, the overall sensitivity is judged to be medium.**
Magnitude of Change and Significance of Landscape Effects: There are four units of this LCT within 20 km of the Proposed Development, two units to the north Nithsdale, one unit west of the Site (south of Carsphairn Forest) and one unit directly north of the Site. None of the proposed turbines are located within this LCT, so any landscape effects will be indirect.

LCT 177 – Southern Uplands
From all units within 20 km the ZTV indicates an intermittent pattern of visibility, from the higher and Site facing hill flanks. This LCT has an open and exposed character so actual visibility will closely reflect theoretical. When visible, the Proposed Development will typically be seen in large scale and expansive views outside of the LCT. This will alter certain perceptual qualities such as remoteness and wildness where they are evident (though noting that these descriptions are not specifically used in the LCT key characteristics). Due to the open nature of the landscape and presence of operational wind farms (within and outside of the LCT) the Proposed Development will generally be seen in the context of views which are altered by wind farms. This will intensify the influence of wind farms, particularly from the unit to the immediate north of the Site, between the Shinnel Water valley and the SUW, resulting in a medium scale of change. North of the SUW, the operational Whiteside Hill Wind Farm has directly altered the landscape character in this unit. From other units, the increased viewing distance (greater than 5 km) and nature of large scale outward views which are altered by wind farms will result in landscape scale of change no greater than small. **The magnitude of change will be medium, from the unit to the north of the Site between the Shinnel Water Valley and the SUW. Beyond this, the magnitude of change will reduce to low, to the north of the SUW and from wider parts of this LCT. Taking account of the medium sensitivity this will result in Moderate (significant) landscape effects within 5 km (from the unit to the north of the Site), reducing to Minor and below (not significant) beyond.**
Scenario 1 (including consented) assessment: **Figure 5.7c** highlights the increasing influence of consented wind farms, particularly in the unit to the north of the Site through the consented Sanquhar II. From open upland areas in the LCT unit to the north of the Site, the Proposed Development will typically be seen in medium to longer distance views behind Sanquhar II. The consented Sanquhar II will exert a direct and stronger influence over the unit to the north of the Site, between the Shinnel Water Valley and the SUW (and from an area of the LCT where significant effects are identified in the 'primary' assessment). From the unit to the west, the Proposed Development will be seen in medium to longer distance views which are altered by wind farms including Sanquhar II, and the larger cluster at Wether Hill including the consented Manquhill and Cornharrow Wind Farms. **In this context, a scale of change no greater than small is predicted resulting in effects of Minor and below (not significant from this LCT).**
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further intensify the influence of wind farms within this LCT (and through indirect effects with views of wind farms in adjacent LCT). From the unit to the west, the Proposed Development will be seen behind and alongside the application stage Lorg and Euchanhead Wind Farms, in medium to longer distance views. **Effects will remain Minor and below (not significant) from this LCT.**

Table 5.13 – LCT 175 - Foothills

LCT 175 – Foothills
Location and Baseline Description: No features of the Proposed Development are located in this LCT. The key characteristics, as identified in the NatureScot description, are as follows: – *"Generally undulating land between 170 and 250 metres, with rounded peaks. Higher in the west, up to nearly 550 metres with craggier peaks.* – *Foothills dissected by incised valleys.* – *Semi-improved pasture enclosed in medium-large fields by stone walls. Grazed by sheep and cattle. Some rough pastures and heath on higher ground.* – *Trees in sheltered pockets with some copses on top of hills.* – *Many scattered farmsteads and small settlements.* – *Network of minor roads.* – *Numerous archaeological sites particularly Bronze Age funerary and ritual sites and Iron Age settlements and forts."* There are no operational wind farms within this LCT, within 20 km of the Site.
Sensitivity: The varied landform, transitional nature, rural settlement pattern, and the role these landscapes play in providing breaks between wind farms indicate a higher susceptibility to the type of development proposed. In terms of value, parts of the LCT are within locally designated landscapes including the Thornhill Uplands RSA, which increases value. **On balance, the overall sensitivity is judged to be medium-high.**
Magnitude of Change and Significance of Landscape Effects: There are five units of this LCT within 20 km of the Proposed Development. The proposed turbines are located outside of this LCT, so any effects will be indirect. The ZTV indicates no visibility from the LCT to west, within 20 km, at the head of the Glenkens. From the units to the south-east of the Site, theoretical visibility is more widespread within 5 km, from the unit to the south of the Shinnel Water Valley. Beyond 5 km, the ZTV indicates a more intermittent pattern of visibility. Areas of forest, including Dalmacallan Forest in the unit to the south of the Dalwhat / Cairn Water Valley, will also somewhat limit actual visibility from wider areas of this LCT. When visible, particularly from areas of open ground within 5 km to the south of Shinnel Water Valley, the Proposed Development will alter the upland rural characteristics of this LCT, introducing further views of wind farms in upland landscapes outside of this LCT, and in close to medium distance views. This will result in a medium scale of landscape

LCT 175 – Foothills
change. From wider areas of the LCT, generally beyond 5 km, the pattern of visibility is more intermittent, the viewing distance increases; and when visible, the Proposed Development will generally be seen in longer distance views which are altered by wind farms. This includes the operational Wether Hill Wind Farm (which is located in closer proximity to the unit to the south of the Site). The scale of change, from wider areas of the LCT, will be no greater than small. **The magnitude of change will be medium, from the unit to the south of the Shinnel Water Valley, within 5 km of the Proposed Development. Beyond this, the magnitude of change will reduce to low. Taking account of the medium-high sensitivity this will result in Moderate (significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water Valley), reducing to Minor and below (not Significant) beyond.**
Scenario 1 (including consented) assessment: Under scenario 1 the key change will relate to the consented Sanquhar II. This wind farm is located to the north of the Site, to the north (and extending north-west) of the Shinnel Water Valley. The larger cluster at Wether Hill including the consented Manquhill and Cornharrow Wind Farms will also be visible in more westerly outward views from parts of this LCT. From open and upland areas in the foothills, the Proposed Development will be seen in the context of these schemes, typically in front of the consented Sanquhar II. The Proposed Development will extend the influence of wind farms seen in views to the north-west, bringing turbines closer to the LCT, with associated indirect effects on landscape character. From areas of open ground within 5 km to the south of Shinnel Water valley, the Proposed Development will result in a medium scale of landscape change. The scale of change will reduce with distance. **This will result in Moderate (significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water Valley), reducing to Minor and below (not significant) beyond.**
Scenario 2 (including consented and proposed) assessment: Under this scenario, application stage wind farms will further intensify the influence of wind farm development, seen in the uplands to the north-west of the foothills. This will include the application stage Lorg and Euchanhead Wind Farms. From open and upland areas in the foothills, the Proposed Development will be seen in the context of these schemes, typically in front of the consented Sanquhar II and the application stage Lorg and Euchanhead Wind Farms. The Proposed Development will extend the influence of wind farms seen in views to the north-west, bringing turbines closer to the LCT, with associated indirect effects on landscape character. **This will result in Moderate (significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water valley), reducing to Minor and below (not significant) beyond.**

Table 5.14 – LCT 161 – Pastoral Valley

LCT 161 – Pastoral Valley
Location and Baseline Description: No features of the Proposed Development are located in this LCT. The key characteristics, as identified in the NatureScot description, are as follows: – *"Medium scale flat bottomed valley with steep slopes.* – *Diverse landscape and settlement pattern.* – *Distinct, eye-catching pattern of regular, small pastoral enclosures extending up the valley sides, usually defined by dry stone dykes.* – *Extensive pattern of broadleaf woodland (Shelterbelts, riparian woodlands and policy woodlands) separating the pastures into small and medium scale open spaces.* – *Isolated houses set within woodland frameworks on the valley sides.* – *Small settlements at river bridging points.* – *Minor roads following the sides of the valley floor."* No operational wind farms are located within this LCT.
Sensitivity: The valley landform and diverse landscape pattern indicate a higher susceptibility to the type of development proposed. The northern extents of the LCT are within the Thornhill Uplands RSA, indicating a higher value. **The overall sensitivity is judged to be high.**
Magnitude of Change and Significance of Landscape Effects: The ZTV indicates more widespread visibility between approximately 6 km and 20 km from this LCT. In distances beyond 20 km the level of theoretical visibility is much reduced. Areas of woodland and forest, including on the southern valley side to the south of the Cairn Water, will somewhat limit actual visibility. From the valley floor, woodland and buildings often combine with the flatter terrain to limit longer distance views outside of the LCT. When visible, the Proposed Development will be seen outside of the LCT in medium distance views from the higher southern valley side within 10 km, to longer distance views from the valley sides and floor between 10 km and 20 km. Many of these views from the higher valley sides within 10 km will include views of operational wind farms, including Wether Hill which is located to the north-west of the LCT and in closer proximity. Due to the viewing distance; indirect nature of effects; nature of outward views from higher valley sides (when visible) which have often been altered by wind farms; and more limited nature of actual visibility from the valley floor, a scale of change no greater than small is predicted. **The magnitude of change will be no greater than low. Taking account of the high sensitivity this will result in a Minor (not significant) effect.**
Scenario 1 (including consented) assessment:

LCT 161 – Pastoral Valley
Under this scenario, the consented Manquhill and Cornharrow will read as a larger wind farm cluster with the operational Wether Hill, when seen in views looking north-west up the Cairn and Dalwhat Water Valleys. Where visible, the Proposed Development will read as a separate scheme seen in more northerly views, with associated indirect effects on landscape character. However, visibility is limited by the rising terrain to the north of this valley, and built features and woodland within. Due to the limited nature of visibility; viewing distance; and context of views, the scale of change will be no greater than low. **The magnitude of change will be no greater than low. Taking account of the high sensitivity this will result in a Minor (not significant) effect.**
Scenario 2 (including consented and proposed) assessment: Under this scenario, and where visible, the Proposed Development is likely to read as an extension (seen alongside) the application stage Lorg Wind Farm. However, the rising landform to the north of this valley will limit visibility of the Proposed Development, and the opportunity for combined views of these schemes. Due to the limited nature of visibility; viewing distance; and context of views, the scale of change will be no greater than low. **The magnitude of change will be no greater than low. Taking account of the high sensitivity this will result in a Minor (not significant) effect.**

Operational Effects on Designated Landscapes

5.10.15 Landscape Designations within 45 km of the Proposed Development are illustrated on **Figure 5.6a**, with theoretical visibility from those located within 20 km illustrated on **Figure 5.6b**. The table below describe the potential effects on landscape designations resulting from the Proposed Development during the operational phase. Consideration is also given to potential cumulative effects, arising in conjunction with other existing, consented, and/or proposed wind farms. The assessment set out below is focussed on those landscape designations where potentially significant effects are considered likely, as detailed in **Table 5.3**. Operational effects are considered long-term, reversible, and adverse unless otherwise stated.

Table 5.15 – Thornhill Uplands RSA

Thornhill Uplands RSA
Baseline Description This local level designation is located to the east of the Site, in Dumfries and Galloway. The RSA extends to the east including parts of Nithsdale and the Lowther Hills, to the east. Whilst there are no defined special qualities for this area, the Dumfries and Galloway Council Regional Scenic Areas Technical Paper (2018) provides the following description: "*The area encompasses varied and contrasting upland and valley scenery ranging from the exposed, remote summits of the Lowther Hills, through the wooded gorge of the Nith above Drumlanrig to the pastoral character of the wide, enclosed upper Cairn and Mid Nithsdale valleys. Overall, though there are strong contrasts in relief, the topography is smoother and rounder than the Galloway Uplands to the west and the area is more highly populated and has a more managed feel.* *The hills of the Southern Uplands form large, smooth steep sided domes with complex spurs and ridges, dissected by numerous steeply sided clefts and several long, deep, U shaped Upland Glens. The uplands are patterned with a mosaic of rough grassland, bracken and rushes, combined with heather moorland on the higher areas. The lower slopes of the glens are enclosed by stone dykes, and some valley floor pastures have been improved. There is relatively little tree cover though the forestry plantations to the west have encroached on the heads and sides of certain valleys. Roads to the heads of the glens give access to isolated farms. Further south the valleys become wider and less steeply sided and start coalescing to form Intimate Pastoral Valleys with scattered farms, hamlets and villages. The improved pastures of the valley sides are patterned with drystone dykes, and interspersed by farm and streamside woodlands. The intervening Foothills and Upland Fringe form open, sculptural ridges, though conifer plantations on the uplands outwith the designated area sometimes lap over the southern horizons.* *The main valley of the Nith has a varied character of strong contrasts. In the north it forms a steep wooded gorge, before opening out to the policy woodlands of Drumlanrig. The broad valley centred around Thornhill has a lush feel near the town with hedgerows rather than dykes, woodland and a little arable land. Further afield the landscape becomes more open, with pastures enclosed by stone dykes, and some plantation forestry, leading upwards to the remote, exposed landscape of the enclosing Southern Uplands.* *The main valleys are accessible from Dumfries, and the Middle Dale and Intimate Pastoral Valleys and are subject to pressure for residential development, as well as being popular for informal recreation. The flanks of the valleys see continued demand for forestry, and the flanks and summits have seen interest from windfarm developers*." There are no operational wind farms within the RSA. However, there are a number of operational wind farms in the uplands directly east and west of the RSA. These include Twentyshilling Hill, Whiteside Hill, Wether Hill and Blackcraig Hill to the west and Dalswinton, Harestanes and Minnygap Wind Farms to the east. These schemes are visible from parts of the RSA, as shown on **Figures 5.8 to 5.10**.
Changes The eastern extent of the Site is located within the RSA. However, none of the proposed infrastructure (including the proposed turbines) are located in the RSA. As such, any effects on the landform, landcover and landscape features which contribute to the RSA will be indirect. The ZTV (refer to **Figure 5.6b**) highlights theoretical visibility from Site facing uplands and foothills in the western extent of the RSA. Given the generally open nature of these landscapes, actual visibility will closely reflect theoretical visibility. There is also theoretical visibility from upper parts of the Shinnel Water Valley. Visibility through this upland glen is dependent on

Thornhill Uplands RSA

localised woodland and forestry cover and is, in reality, more intermittent in nature. Visibility from the other upland glens within the RSA (including the Scar and Dalwhat Water) is more limited and tends to be focused to the higher valley sides.
In the east of the RSA, there is theoretical visibility from Site facing uplands in the Lowther Hills east of Nithsdale (beyond 15 km distance). Given the generally open nature of these upland landscapes, actual visibility will closely reflect theoretical visibility. Visibility from the valley of Nithsdale itself is generally limited by the rising terrain to the west of the valley. There is some theoretical visibly from the southern extents of the valley, as it broadens out around and south of Thornhill. As noted in the RSA description, woodland is characteristic of this area, so actual visibility will be more intermittent in nature.
The landscape assessment has identified significant effects on landscape character from the following LCTs, within western parts of the RSA:

- *Uplands Glens – Dumfries and Galloway (166) from the Shinnel Water Valley, within approximately 8 km:*
- *Foothills – Dumfries and Galloway (175) from uplands to the east and south of the Site, within approximately 5 km; and*
- *Southern Uplands – Dumfries and Galloway (177) from uplands to the north of the Site, within approximately 5 km.*

From the Shinnel Water Valley, the Proposed Development will be visible from sections of the valley floor, between breaks in woodland, forestry and tree cover. When visible it will be seen on horizons just outside of the RSA. It is likely to alter the more perceptual characteristics of this upland glen, including the more 'isolated' upper section and the 'intimate pastoral' character of the lower section of the valley, as noted in the RSA description.
From parts of the Foothills and Southern Uplands in the west of the RSA with visibility, the Proposed Development will be seen in outward views to the west and north. The perceptual qualities of these landscapes are more clearly defined within the LCT descriptions. The Proposed Development is likely to alter perceptual qualities such as remoteness. However, from these more elevated areas wind farms to the west of the RSA have already influenced outward views and character, which is recognised in the RSA description. The Proposed Development will be seen in this context.
From the valley of Nithsdale, theoretical visibility is limited to areas around and south of Thornhill. Woodland (and buildings in the settlements in the valley) generally limits views to the west, towards the Proposed Development. There are some limited areas with visibility from the valley floor, as represented by Viewpoint 17: A76, south of Closeburn. Given the viewing distance and more fleeting nature of views, this is not judged to result in significant effects on the landscape or views.
To the far east of the RSA, from parts of the Lowther Hills, when visible the Proposed Development will be seen in upland, large scale and longer distance views (beyond 12 km) to the west, and outside of the RSA. Again, it will be seen in areas to the west of the RSA where wind farms already influence outward views and character.

Potential to affect special qualities of designated landscape
In summary, the landscape assessment recognises the potential for significant effects from parts of the following LCT, in the west of the RSA:

- *Uplands Glens – Dumfries and Galloway (166) from the Shinnel Water Valley, within approximately 8 km:*
- *Foothills – Dumfries and Galloway (175) from uplands to the east and south of the Site, within approximately 5 km; and*
- *Southern Uplands – Dumfries and Galloway (177) from uplands to the north of the Site, within approximately 5 km.*

From the Foothills and Southern Uplands, the more elevated nature of these landscapes typically offers large scale views in which wind farms to the west of the RSA have influenced character. The indirect influence of wind farms is recognised in the RSA description, and the Proposed Development will be seen in this context.
From parts of the Shinnel Water Valley, the Proposed Development will introduce views of a wind farm, on horizons to the north-west of the valley (and outside of the RSA). This is likely to alter perceptual qualities such as 'isolation' and the 'intimate pastoral' character of the valley, as recognised in the RSA description. These effects, whilst significant, are localised in the context of this large designation.
The Proposed Development is likely to alter certain perceptual aspects, as recognised in the RSA description, experienced from parts of the Shinnel Water Valley. These effects will be localised in extent. From more upland and wider parts of the RSA, the Proposed Development is not judged to significantly alter the features which contribute to the RSA. From upland areas, outward views of wind farms to the west of the RSA already influence character and the Proposed Development will be seen in this context. As such, and when considering effects on the RSA in its entirety (and in the context of the RSA description) the Proposed Development will not result in significant effects (effects on the Thornhill Uplands RSA overall will be no greater than Minor).

Scenario 1 (including consented) assessment:
Under scenario 1 the key change will relate to the consented Sanquhar II Wind Farm. This wind farm is located on the north-western edge of the RSA, to the north of the Site. The larger cluster at Wether Hill including the consented Manquhill and Cornharrow Wind Farms will also be visible in more westerly outward views from the RSA. From open and upland areas and parts of the valleys to the west of the RSA, the Proposed Development will be seen in the context of these schemes, either in front of or alongside the consented Sanquhar II. The Proposed Development will extend the influence of wind farms seen in views to the north-west, bringing turbines closer to the view from certain locations on the western edge of the RSA, with associated indirect effects on the special qualities of the RSA.

Scenario 2 (including consented and proposed) assessment:
Under this scenario, application stage wind farms will further intensify the influence of wind farms, seen in the uplands to the north-west of the RSA. This will include the application stage Lorg and Euchanhead Wind Farms. From open and upland areas in the foothills, and parts of the Shinnel Water Valley, the Proposed Development will be seen in the context of these schemes, typically in front of the consented Sanquhar II and the application stage Lorg and Euchanhead Wind Farms. The Proposed Development will extend the influence of wind farms seen in views to the north-west, bringing turbines closer to the view, with associated indirect effects on the special qualities of the RSA.

Potential to affect special qualities of designated landscape in scenario 1 and 2
Under both assessment scenarios the influence of wind farms (outside of the RSA) will increase and the Proposed Development will be seen in this context. The Proposed Development is likely to alter certain more perceptual aspects, as

Thornhill Uplands RSA
recognised in the RSA description, from parts of the Shinnel Water Valley. These effects will be localised in extent. From upland and wider parts of the RSA, the Proposed Development is not judged to significantly alter the features which contribute to the RSA. From upland areas, outward views of wind farms, to the west of the RSA, already influence character. **Overall, the Proposed Development will not result in significant effects on the RSA designation (effects on the Thornhill Uplands RSA overall will be no greater than Minor).**

Operational Visual Effects

5.10.16 The assessment of visual effects from the 20 viewpoints selected to represent views of the Proposed Development (as listed in **Table 5.4** and shown on **Figures 5.2 and 5.3**) are set out below. This assessment assumes that all effects are long-term, during the proposed 50 year operational lifespan of the Proposed Development, and reversible, unless stated otherwise. A summary of effects on visual receptors is provided at the end of the report in **Table 5.38**.

5.10.17 Accompanying visualisations for each assessment viewpoint are contained in **Volume 3** of the EIA Report. The visualisations were prepared in accordance with the methodology set out in **Technical Appendix 5.1**.

Table 5.16 – Viewpoint 1: Colt Hill, Striding Arch

Colt Hill, Striding Arch				
Grid Reference (NGR)	269856	599004	**Figure Number**	**5.11**
LCT	178		**Designated Landscape or Wild Land Area**	None
Direction of View	East		**Distance to nearest turbine (km)**	0.5 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located to the north-west of the Site. It represents views experienced by recreational receptors from a local hill summit, which forms part of a promoted walk and the site of one of the Striding Arch sculptures. From this elevated and open vantage point, panoramic views looking over the open Southern Upland Hills are available. There are also notable areas of coniferous forest and wind farms visible in multiple directions, including Whiteside Hill to the north; Windy Rig and Afton to the west; and Wether Hill to the south. In views to the south-east, the open ridge of hills to the north (including Lamgarroch) and south (including Blackcraig Hill and Mullwhanny) of the Site are apparent. The rounded summit of Colt Hill obscures views into the forested valley of Appin Burn, in lower parts of the Site. The Striding Arch on Bail Hill is also visible, along the southern boundary of the Site beyond Mullwhanny. Further south-west, in sequential views, the Striding Arch on Benbrack Hill is also visible.				
Sensitivity: Recreational receptors at this summit, and visiting the Colt Hill Striding Arch, are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is somewhat increased given its association with the Striding Arch series of sculptures. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the east, at a distance of 0.5 km. From this close proximity view T1 and T2 will be seen in more easterly views, with T3 to T9 reading as a compact cluster in more south-easterly views. The hub of T4 will sit notably lower than the hubs of other turbines within this cluster. Despite this arrangement of turbines, given the proximity of the view the Proposed Development will still read as one wind farm. The broad rounded summit of Colt Hill will generally screen views of the access tracks and ancillary features. Sections of access track, to the far east of the layout, will be apparent. The line of sight to the Striding Arch on Bail Hill will be maintained, with the Proposed Development fully contained to the north of this line of sight. The line of sight to the Striding Arch on Benbrack Hill, to the south-west, will also remain intact. The scale of change is judged to be large. The geographical extent is judged to be small, as this represents a localised view from a hill summit, as recreational receptors visit the Striding Arch on Colt Hill, which is typically accessed via the western flank of the hill. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 1 (including consented) assessment: Under this scenario, consented schemes will increase the influence of wind farms, seen in close proximity to longer distance views in the uplands to the north, west and south of the viewpoint. Notable changes, in the more immediate context, will include Sanquhar II, seen in closer proximity to the north, and Manquhill and Cornharrow Wind Farms, which will increase the influence of the Wether Hill Wind Farm cluster in views to the south. Given its proximity, the Proposed Development will read as a distinct scheme, seen in close proximity views to the east. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 2 (including consented and proposed) assessment:				

Colt Hill, Striding Arch
Application stage wind farms will further intensify the influence wind farms, seen in close proximity to longer distance views in the uplands to the north, west and south of the viewpoint. Notable changes, in the more immediate context, will include Lorg and Euchanhead, which will bring close proximity views of wind turbines to the north of the viewpoint. The Proposed Development may read as an extension to these schemes, extending the horizontal field of view occupied by turbines in views to the east. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**

Table 5.17 – Viewpoint 2: Bail Hill, Striding Arch

Bail Hill, Striding Arch				
Grid Reference (NGR)	272098	595725	**Figure Number**	**5.12**
LCT	Edge of 178		**Designated Landscape or Wild Land Area**	None
Direction of View	North		**Distance to nearest turbine (km)**	0.9 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on Bail Hill, to the south of the Site. It represents views experienced from a local hill summit and site of one of the Striding Arch sculptures, with a less formal path to it. This viewpoint was requested by Dumfries and Galloway Council. From this elevated and open vantage point, panoramic views looking over the open Southern Upland Hills are available. There are also views into the forested valley of the Dalwhat Water, to the west of view. There are also notable areas of coniferous forest and wind farms visible in multiple directions, including Whiteside Hill to the north; Windy Rig and Afton to the west; and Wether Hill to the south. In views to the north-west, the open rounded summit of Colt Hill (and the associated Striding Arch sculpture) is apparent. The ridge of hills between Bail Hill and Colt Hill broadly form the southern boundary of the Site, and obscure direct views into the lower lying Appin Burn Valley. The Striding Arch sculpture on Benbrack is also apparent, seen on the horizon in views to the north-west.				
Sensitivity: Recreational receptors at this summit, and visiting the Bail Hill Striding Arch, are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is somewhat increased given its associated with the Striding Arch series of sculptures. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the north, at a distance of 0.9 km. The Proposed Development will read as a line of turbines seen along the ridge between Bail Hill and Colt Hill. There will be some overlapping of Turbine 2 and 3. The hub of Turbine 4 will sit notably lower than the hubs of the other turbines. Certain sections of access track, which connect the turbines, will be apparent. The line of sight to the Striding Arch on Colt Hill will be maintained, with the Proposed Development fully contained to the north of this line of sight. The line of sight to the Striding Arch on Benbrack Hill, to the south-west, will also remain intact. The scale of change is judged to be large. The geographical extent is judged to be small, as this represents a localised view from a hill summit, as recreational receptors visit the Striding Arch, which is typically accessed via the Dalwhat Water Valley from the south. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 1 (including consented) assessment: Under this scenario, consented schemes will increase the influence of wind farms, seen in close proximity to longer distance views in the uplands to the north, west and south of the viewpoint. Notable changes, in the more immediate context, will include Sanquhar II, seen in closer proximity to the north, and Manquhill and Cornharrow Wind Farms, which will increase the influence of the Wether Hill Wind Farm cluster in views to the south-east. The Proposed Development will be seen in close proximity views to the north, in front of the consented Sanquhar II. It may read as an extension to the scheme, given the proximity of turbines to the west of the layout and turbines within Sanquhar II. However, it will bring turbines closer to the viewpoint and extend the horizontal field of view occupied by turbines to the east of the view. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further intensify the influence of wind farms, seen in close proximity to longer distance views in the uplands to the north, west and south of the viewpoint. Notable changes, in the more immediate context, will include Lorg and Euchanhead, which will bring close proximity views of wind turbines to the north-west of the viewpoint. The Proposed Development will be seen in close proximity views to the north, in front of the consented Sanquhar II and application stage Lorg and Euchanhead. It may read as an extension to these schemes, given the proximity of turbines to the				

Bail Hill, Striding Arch
west of the layout and turbines within this now larger cluster. However, it will bring turbines closer to the viewpoint and extend the horizontal field of view occupied by turbines to the east of the view. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**

Table 5.18 – Viewpoint 3: Cairnhead, Striding Arch

Cairnhead, Striding Arch				
Grid Reference (NGR)	270141	597176	**Figure Number**	**Figure 5.13**
LCT	178		**Designated Landscape or Wild Land Area**	None
Direction of View	North-east		**Distance to nearest turbine (km)**	1.2 km
Number of hubs theoretically visible	5		**Number of turbines with blades theoretically visible**	5
Location, description of existing view and potential receptors: This viewpoint is located in the Dalwhat Water Valley, to the south of the Site. It represents views experienced by recreational receptors likely visiting the first of the series of Striding Arch sculptures. There is parking and interpretation signage near this viewpoint and a series of ruined buildings, one of which houses a Striding Arch. The view looks north-east towards the rising valley side to the north of the Dalwhat Water Valley. The valley side is characterised by rough grassland and woodland in the foreground, with coniferous forest on the valley sides and higher ground. The ridge of hills, to the south of the Site, contribute to the forested close to middle distance horizon. The Striding Arch sculpture on the open summit of Bail Hill is visible on the horizon, to the south-east.				
Sensitivity: Recreational receptors visiting the Cairnhead Sculpture are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is somewhat increased given its associated with the Striding Arch series of sculptures. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: Five turbine hubs and blades will be theoretically visible above the horizon in views to the north-east, at a distance of 1.2 km. Intervening vegetation will limit actual visibility to one turbine blade. Vegetation will further screen or filter views as recreational receptors move closer to the Striding Arch sculpture at Cairnhead. From this location views towards the Striding Arches on Colt Hill and Benbrack are not available, due to the intervening terrain and vegetation cover. The line of sight towards the Striding Arch on Bail Hill will remain intact, with the Proposed Development contained behind the ridge to the north of the viewpoint. The scale of change is judged to be small. The geographical extent is judged to be small, as this represents a localised view from around the location of the Striding Arch at Cairnhead, which is accessed via a nearby car park. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				
Scenario 1 (including consented) assessment: Under this scenario consented turbines in Cornharrow Wind Farm, to the south-west, are theoretically visible. However, intervening vegetation will screen or filter views of this scheme. There will be some limited visibility of one turbine blade in the Proposed Development, in views to the north-east. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				
Scenario 2 (including consented and proposed) assessment: No application stage wind farms will be visible from this location. There will be some limited visibility of one turbine blade in the Proposed Development, in views to the north-east. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				

Table 5.19 – Viewpoint 4: Shinnelhead

Shinnelhead				
Grid Reference (NGR)	272894	599213	**Figure Number**	**Figure 5.14**
LCT	Edge of LCT 166		**Designated Landscape or Wild Land Area**	None
Direction of View	South-west		**Distance to nearest turbine (km)**	1.6 km
Number of hubs theoretically visible	2		**Number of turbines with blades theoretically visible**	5
Location, description of existing view and potential receptors:				

Shinnelhead
This viewpoint is located in the upper Shinnel Water Valley, to the north-east of the Site. It represents views experienced by nearby residential receptors and recreational receptors using the forest track to the north of the Site. The view looks south-west towards the rising valley side to the south of the Shinnel Water Valley. The valley side is characterised by rough pasture and occasional trees on the lower ground, and coniferous forest on the higher ground. Outbuildings associated with the property at Shinnelhead are apparent in the foreground, to the east of view. The open minor summit of Lamgarroch, on the northern edge of the Site, contributes to the near distance horizon. The open and forested ridge of hills to the north of the Site screen or filter direct views into the Site.
Sensitivity: Whilst it is recognised this represents a residential view, from a single property, the view will be more widely experienced by recreational receptors, using the forest track. Recreational receptors are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is considered to be medium. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium.**
Assessment of visual effects: Two turbine hubs and five turbine blades will be theoretically visible above the horizon in views to the south-west, at a distance of 1.6 km. There will be no overlapping of turbine towers, with the steeply rising landform to the south of the upper Shinnel Water Valley, screening or filtering views. Coniferous forest cover, on the upper valley side and across the horizon, will provide further screening, whilst this remains in place. It will largely screen turbines to the left (east) of Turbine 1. The scale of change is judged to be medium. The geographical extent is judged to be small, as this represents a localised view from the open upper extents of the Shinnel Water Valley. **The overall magnitude of change is judged to be medium and taking account of the medium sensitivity will result in a Moderate (significant) visual effect.**
Scenario 1 (including consented) assessment: The southern extents of the consented Sanquhar II will be visible above the horizon to the north of the view. Intervening vegetation will partially screen or filter views of this scheme, from this location, but more open views along the Shinnel Water valley will be available. The Proposed Development is likely to read as a separate wind farm, located to the south of the Shinnel Water Valley. **The overall magnitude of change is judged to be medium and taking account of the medium sensitivity will result in a Moderate (significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Application stage turbines in Lorg and Euchanhead will be visible at the head of the valley, in views to the west, and across horizons along the upper extents of the southern valley side. The Proposed Development is likely to read as an extension to these wind farms. Combined with the limited nature of visibility, the scale of change associated with the Proposed Development is judged to be small. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**

Table 5.20 – Viewpoint 5: High Appin

High Appin				
Grid Reference (NGR)	274405	597580	**Figure Number**	**5.15**
LCT	Edge of 178		**Designated Landscape or Wild Land Area**	None
Direction of View	West/ south-west		**Distance to nearest turbine (km)**	2 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on a forest track, on a minor summit, to the east of the Site. It represents recreational views. The viewpoint was requested by Tynron Community Council. The view looks west, over the upper reaches of the Appin Burn Valley. The rising landform to the north and south of the valley contain middle distance views. The landcover across the valley is characterised by coniferous forest, in various stages of management. Forest tracks which traverse the southern valley side are also apparent. There are longer distance views to the south-east, looking down the Shinnel Water Valley. The lower reaches of the valley are characterised by pastoral farmland and woodland, with blocks of coniferous forest on the higher valley sides.				
Sensitivity: Recreational receptors are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is considered to be medium. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the west and south-west, at a distance of 2 km. The Proposed Development will read as a single row of turbines, seen along the ridgeline above the head of Appin Burn. There will be no overlapping of turbine towers and the wind farm will read as a single coherent group of turbines, though the				

High Appin
hub of T4 will sit lower on the horizon. Small sections of access track between the turbines will be visible. The substation will also be visible, on lower ground below T8. The scale of change is judged to be large. The geographical extent is judged to be small, as this represents a localised view from an area of open high ground in forestry. **The overall magnitude of change is judged to be high and taking account of the medium sensitivity will result in a Major (significant) visual effect.**
Scenario 1 (including consented) assessment: The southern extents of the consented Sanquhar II will be visible above the horizon to the north of the view (and north of the Shinnel Water Valley). The Proposed Development will read as a separate wind farm, seen in successive views to the west and south-west. Rising landform, to the north of the Appin Burn Valley, will also provide a degree of separation between these two schemes. **The overall magnitude of change is judged to be high and taking account of the medium sensitivity will result in a Major (significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: The key change under this scenario will relate to views of application stage turbines in Lorg and Euchanhead, visible at the head of Appin Burn Valley, in views to the west. The Proposed Development is likely to read as an extension to these wind farms, bringing turbines closer to the viewpoint and extending the horizontal field of view occupied by turbines to the west and south-west of the view. **The overall magnitude of change is judged to be high and taking account of the medium sensitivity will result in a Major (significant) visual effect.**

Table 5.21 – Viewpoint 6: Benbrack, Striding Arch

Benbrack, Striding Arch				
Grid Reference (NGR)	268057	597061	**Figure Number**	**5.16**
LCT	178		**Designated Landscape or Wild Land Area**	None
Direction of View	North-east		**Distance to nearest turbine (km)**	2.9 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located to the south-west of the Site. It represents views experienced by recreational receptors from a local hill summit, which forms part of a promoted walk (the SUW) and the site of one of the Striding Arch sculptures. From this elevated and open vantage point, panoramic views looking over the open Southern Upland Hills are available. There are also notable areas coniferous forest and wind farms visible in multiple directions, including Twentyshilling Hill (seen behind the Site to the north-east); Whiteside Hill to the north; Windy Rig and Afton to the north-west; and Wether Hill to the south. In views to the north-east, the open ridge of hills to the south of the Site, extend between Colt Hill and Bail Hill, with the Striding Arch sculptures visible on both summits. This ridge of hills screens more direct views into the Site.				
Sensitivity: Recreational receptors at this summit, and visiting the Benbrack Striding Arch, are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is somewhat increased given its associated with the Striding Arch series of sculptures. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the north-east, at a distance of 2.9 km. The Proposed Development will read as a single row of turbines, seen along the ridgeline between Colt Hill, to the north-east, and Bail Hill, to the east. There will be no overlapping of turbine towers and the wind farm will read as a single coherent group of turbines, though the hub of T4 will sit lower on the horizon. Small sections of access track between the turbines, and certain sections of Site access tracks, to the south of the ridge between Colt Hill and Bail Hill will be visible. The Proposed Development will be seen in front of Twentyshilling Hill Wind Farm, reading as a larger separate wind farm in the foreground. The line of sight to the Striding Arch on Colt Hill, to the north-east, and Bail Hill, to the east, will be maintained. The Proposed Development will be fully contained within the gap between these features. Views in this direction and between these Striding Arches are influenced by wind farms through the operational Twentyshilling Hill Wind Farm. The Proposed Development will be seen in this context. The scale of change is judged to be large. The geographical extent is judged to be small, as this represents a localised view from the hill summit, and a short section of the ridgeline to the north, as recreational receptors visit the Striding Arch on Benbrack via the SUW. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 1 (including consented) assessment: Under this scenario, consented schemes will increase the influence of wind farms, seen in close proximity to longer distance views in the uplands to the north, west and south of the viewpoint. Notable changes, in the more immediate context, will				

Benbrack, Striding Arch
include Sanquhar II, to the north, and Manquhill and Cornharrow Wind Farms, which will increase the influence of the Wether Hill Wind Farm cluster in views to the south. The Proposed Development will be seen in closer proximity views to the north-east, seen in front of Sanquhar II and other more distance operational wind farms. It may read as an extension in front of Sanquhar II Wind Farm. However, it will bring turbines in closer proximity and extend the horizontal field of view occupied by turbines in the foreground of the view to the north-east. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further intensify the influence of wind farm development, seen in close proximity to longer distance views in the uplands to the north, west and south of the viewpoint. Notable changes, in the more immediate context, will include Lorg and Euchanhead, which will extend the influence of the consented Sanquhar II scheme, bringing wind turbines closer to the viewpoint, in views to the north. The Proposed Development is likely to read as an extension to these schemes (Sanquhar II, Lorg and Euchanhead) extending the horizontal field of view occupied by turbines in views to the north-east. In this context the scale of change associated with the Proposed Development will reduce to medium. **The overall magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**

Table 5.22 – Viewpoint 7: Shinnel Water Valley, near Craigencoon

Shinnel Water Valley, near Craigencoon				
Grid Reference (NGR)	276201	596727	**Figure Number**	**5.17**
LCT	166		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	North-west		**Distance to nearest turbine (km)**	3.5 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located in the Shinnel Water Valley. It represents more direct views experienced by road users, travelling north-west, and views experienced by nearby residential receptors dispersed along the Shinnel Water Valley. The views look up the minor road which passes through the Shinnel Water Valley. The valley is characterised by pasture, dry stone walls and broadleaf woodland on the valley floor. On the higher valley sides, rough grassland and coniferous forest, in various stages of management, are more typical. There are direct views into the Site from this location. The ridge of hills which enclose the Site, to the north and south and around the head of the Shinnel Water, form the middle-distance horizon. Appin Lodge, glimpsed between areas of woodland, is visible on the hillside below the horizon to the north-west.				
Sensitivity: Road users on this minor road are considered to be of medium susceptibility. Views from properties in the Shinnel Water Valley will be similar (albeit typically more oblique in nature) where open views to the north-west are available. The viewpoint is within the Thornhill Uplands RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the north-west, at a distance of 3.5 km. The Proposed Development will read as a single row of turbines, seen along the ridgeline above the head of Appin Burn Valley. There will be no overlapping of turbine towers and the wind farm will read as a single coherent group of turbines, though the hub of T4 will sit lower on the horizon. Small sections of access track between the turbines will be visible. The substation is also apparent, on lower ground between T6 and T7. The scale of change is judged to be large. The geographical extent is judged to be medium, as this represents intermittent views, between breaks in tree and woodland cover, as one travels north-west up the Shinnel Water Valley. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 1 (including consented) assessment: Certain turbines in the southern extents of the consented Sanquhar II will be visible above the horizon to the north-west of the view. The Proposed Development will read as a separate wind farm, seen in combined views. Rising landform, to the north of the Appin Burn Valley, will provide a degree of separation between these two schemes. **The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.**				
Scenario 2 (including consented and proposed) assessment: The key change under this scenario will relate to views of application stage turbines in Lorg and Euchanhead, visible at the head of Appin Burn Valley, in views to the north-west. The Proposed Development is likely to read as an extension to these wind farms, bringing turbines closer to the viewpoint and extending the horizontal field of view occupied by turbines to the west and south-west of the view.				

Shinnel Water Valley, near Craigencoon
The overall magnitude of change is judged to be high and taking account of the medium-high sensitivity will result in a Major (significant) visual effect.

Table 5.23 – Viewpoint 8: Southern Upland Way near Cloud Hill

Southern Upland Way near Cloud Hill				
Grid Reference (NGR)	273984	604906	**Figure Number**	**5.18**
LCT	177		**Designated Landscape or Wild Land Area**	None
Direction of View	South		**Distance to nearest turbine (km)**	6.7 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on the SUW as it passes to the north of the Scaur Water Valley. It represents views experienced by recreational receptors from the SUW, traveling south-west towards the Glenkens. From this slightly elevated position, the view looks over the more isolated upper extents of the Scaur Water Valley. The valley is characterised by open moorland and unimproved pasture, with a minor road and watercourse winding through the valley floor. The southern side of the valley rises to contain middle distance views. Views to the west and east look along the valley. Turbines in the operational Whiteside Hill Wind Farm are visible in close proximity views, seen behind enclosing horizons to the north.				
Sensitivity: Recreational receptors on the SUW are considered to be of medium susceptibility. The viewpoint is on the edge of the Thornhill Uplands RSA, which increases value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the south, at a distance of 6.7km. The Proposed Development will read as a single row of turbines, seen beyond the ridgeline to the south of the Scaur Water Valley. There will be no overlapping of turbine towers, and the wind farm will read as a single coherent group of turbines. Turbine 4, which sits at a lower elevation, will be apparent, with its hub seen just above the horizon line. The intervening landform will largely screen low level ancillary features. The scale of change is judged to be medium-large. The geographical extent is judged to be small, as this represents views from a relatively localised section of the SUW, as it drops in elevation down the northern side of the Scaur Water Valley. **The overall magnitude of change is judged to be medium and taking account of the medium sensitivity will result in a Moderate (significant) visual effect.**				
Scenario 1 (including consented) assessment: The key change under this scenario relates to Sanquhar II, which will introduce close to medium distance views of turbines to the south and west of the view. The Proposed Development will be seen behind this scheme, and fully contained within the horizontal field of view occupied by turbines in Sanquhar II, in views to the south. As such, the scale of change associated with the Proposed Development will reduce to small. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**				
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further intensify the influence of wind farms, in views to the north-west and south. This will include close proximity views of turbines in Cloud Hill Wind Farm to the north. The Proposed Development will be seen behind the consented Sanquhar II and application stage Euchanhead, fully contained within the horizontal field of view occupied by turbines in these schemes, in views to the south. As such, the scale of change associated with the Proposed Development will remain small. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**				

Table 5.24 – Viewpoint 9: Moniaive

Moniaive				
Grid Reference (NGR)	277817	590646	**Figure Number**	**5.19**
LCT	Edge of 166		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	North-west		**Distance to nearest turbine (km)**	7.6 km
Number of hubs theoretically visible	4		**Number of turbines with blades theoretically visible**	8
Location, description of existing view and potential receptors:				

Moniaive
This viewpoint is located on the south-western edge of the settlement of Moniaive. It represents views experienced by residents and recreational receptors, with more open views to the north-west from the settlement. Many views from within the core of the settlement will be screened by buildings. This viewpoint was requested by NatureScot. The view looks over a field of rough pasture, with houses set in woodland along the Craigdarroch Water, on the western edge of the settlement, visible in the foreground. Beyond this woodland, hills to the north of the settlement (Craigdarroch and Bardennoch Hill) rise to form the middle distance horizon. There is a small single turbine on the hillside, in views to the south-west.
Sensitivity: Residents are considered to be of high susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be high.**
Assessment of visual effects: Four turbine hubs and eight turbine blades will be theoretically visible above the horizon to the north-west, at a distance of 7.6km. The valley side to the north of the Dalwhat Water Valley and intermediate woodland will provide screening or filtering of views of some of the hubs, lower turbine towers and low level ancillary features. Turbine 9, the most easterly turbine, will appear the most prominent. From this viewing angle the Proposed Development will read as a compact group of turbines, with some stacking. The scale of change is judged to be medium-small. The geographical extent is judged to be small, as this represents a local in extent view from the south of the settlement. **The overall magnitude of change is judged to be low and taking account of the high sensitivity will result in a Minor (not significant) visual effect.**
Scenario 1 (including consented) assessment: The consented Fell and Troston Loch Wind Farms are theoretically visible in successive views to the south-west. Intervening vegetation will largely screen or filter views of these schemes. **The overall magnitude of change is judged to be low and taking account of the high sensitivity will result in a Minor (not significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Views of application stage schemes will largely be screened by the landform. One blade tip at Euchanhead is theoretically visible in combined views to the north-west, though it is likely to be imperceptible. **The overall magnitude of change is judged to be low and taking account of the high sensitivity will result in a Minor (not significant) visual effect.**

Table 5.25 – Viewpoint 10: Auchengibbert Hill

Auchengibbert Hill				
Grid Reference (NGR)	280623	594425	**Figure Number**	**5.20**
LCT	175		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	North-west		**Distance to nearest turbine (km)**	8.1 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on the summit of Auchengibbert Hill, near the settlement of Tynron. It represents views experienced by recreational receptors on this minor summit within the Thornhill Uplands RSA. From this elevated and open vantage point, large scale and panoramic views looking over hills in the Thornhill Uplands and the wider landscape are available. The open uplands contrast with the settled and more wooded lower lying valleys. There are a number of wind farms visible in middle to longer distance views, including Wether Hill to the west and Blackcraig Hill to the south-west. In views to the north-west there are direct views looking into the Site, around the forested head of the Shinnel Water Valley. Turbines in Windy Standard I are visible beyond Colt Hill, which contributes to the distant horizon in this direction.				
Sensitivity: Recreational receptors at this summit are considered to be of medium susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the north-west, at a distance of 8.1 km. The Proposed Development will read as a single row of turbines, seen along the ridgeline above the head of Appin Burn. There will be no overlapping of turbine towers, and the wind farm will read as a single coherent group of turbines. Turbine 4 will be notably lower on the skyline than the other turbines. Whilst direct views into the Site will be possible, at this viewing distance low level ancillary features will be hard to discern. The Proposed Development will be seen in combined views with more distant wind farms, reading as a distinct scheme in the middle ground.				

Auchengibbert Hill
The scale of change is judged to be medium. The geographical extent is judged to be small, as this represents views from the summit of a minor hill. **The overall magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**
Scenario 1 (including consented) assessment: Under this scenario, consented schemes will increase the influence of wind farms, seen in middle to longer distance views in the uplands to the north, east, south and west. Notable changes, in the views towards the Site will include Sanquhar II (to the north of the Site) and Manquhill and Cornharrow Wind Farms, which will increase the influence of the Wether Hill Wind Farm cluster to the south of the Site. The Proposed Development will be seen in middle distance views to the north, to the south of the consented Sanquhar II. It will read as a distinct wind farm with a slight gap between it and Sanquhar II. **The overall magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further intensify the influence of wind farm development, seen in middle to longer distance views in the uplands to the north, east, south and west. Notable changes, in the views towards the Site will include the application stage Lorg and Euchanhead Wind Farms, which is likely to read as one larger wind farm cluster with the consented Sanquhar II. The Proposed Development will be seen in front of the application stage Lorg and Euchanhead, further extending this larger wind farm cluster. In this context, the scale of change associated with the Proposed Development is judged to reduce to medium-small. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**

Table 5.26 – Viewpoint 11: Cairnkinna Hill

Cairnkinna Hill				
Grid Reference (NGR)	279128	601870	**Figure Number**	**5.21**
LCT	177		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	South-west		**Distance to nearest turbine (km)**	8.4 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on Cairnkinna Hill, to the north-east of the Site. It represents recreational views from a minor summit north of Scaur Glen. This viewpoint was requested by Dumfries and Galloway Council. From this elevated and open vantage point, panoramic views looking over the open Southern Upland Hills are available. The Striding Arch sculptures are just perceptible on the summit of Colt Hill and Benbrack, in middle distance views to the south-west. There are also views into the surrounding valleys including Nithsdale to the north, and the Scaur Water to the south. In longer distance views to the south-east, the Solway Firth is also apparent. There are notable areas of coniferous forest and wind farms visible in multiple directions, including close proximity views of Twentyshilling Hill to the north; Whiteside Hill to the north-west; Windy Rig and Afton to the west; and Wether Hill to the south-west.				
Sensitivity: Recreational receptors on this summit are considered to be of medium susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: Nine turbine hubs and blades will be visible above the horizon in views to the south-west, at a distance of 8.4 km. The Proposed Development will read as a single row of turbines, seen on the horizons in middle distance views. There will be some overlapping between Turbine 1 and 3. Due to the viewing distance and intervening landform, low level ancillary features will be hard to discern. The Proposed Development will be seen in front of the more distant Wether Hill Wind Farm, reading as a distinct scheme in the middle distance. The scale of change is judged to be medium. The geographical extent is judged to be small, as this represents views from a minor summit to the north of the Scaur Water Valley. **The overall magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**				
Scenario 1 (including consented) assessment: Under this scenario, consented schemes will increase the influence of wind farms, seen in middle to longer distance views in the uplands to the north, east, south and west. Notable changes, in the views towards the Site will include Sanquhar II (to the north of the Site); Manquhill and Cornharrow Wind Farms, which will increase the influence of the Wether Hill Wind Farm cluster to the south of the Site; and a larger cluster of application stage wind farms including Troston Loch Wind Farm, in views to the south-west.				

Cairnkinna Hill
The Proposed Development will be seen in middle distance views to the south-west, to the south of the consented Sanquhar II. It may read as an extension seen behind this wind farm, extending the horizontal field of view occupied by wind turbines slightly further east. In this context, the scale of change associated with the Proposed Development will reduce to medium-small. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further intensify the influence wind farms, seen in middle to longer distance views in the uplands to the north, east, south and west. Notable changes, in the views towards the Site will include the application stage Lorg and Euchanhead Wind Farms, which is likely to read as one larger wind farm cluster with the consented Sanquhar II. The Proposed Development will be seen behind this cluster, further slightly extending the horizontal field of view occupied by turbines. In this context, the scale of change associated with the Proposed Development is judged to remain medium-small. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**

Table 5.27 – Viewpoint 12: Blackcraig Hill

Blackcraig Hill				
Grid Reference (NGR)	264775	606400	**Figure Number**	**5.22**
LCT	81		**Designated Landscape or Wild Land Area**	Uplands and Moorlands LLA (East Ayrshire)
Direction of View	South-east		**Distance to nearest turbine (km)**	9.4 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on the summit of Blackcraig Hill, to the north-west of the Site. It represents views experienced by recreational receptors on the summit. This viewpoint was requested by East Ayrshire Council. From this elevated and open vantage point, panoramic views looking over the open Southern Upland Hills are available. There are glimpsed views into some of the lower lying surrounding valleys, including upper Nithsdale, to the north. There are also notable areas of coniferous forest and wind farms visible in multiple directions, including Hare Hill to the north; Sanquhar Community and Whiteside Hill to the north-east; Afton and Windy Rig to the south-west; and Wether Hill and Blackcraig Hill to the south-east.				
Sensitivity: Recreational receptors at this summit are considered to be of medium susceptibility. The viewpoint is located within the Uplands and Moorlands LLA (East Ayrshire), indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the horizon in views to the south-east, at a distance of 9.4 km. The Proposed Development will read as two more compact groups of turbines, with a slight outlier (Turbine 1) to the north. From this viewing distance, low level ancillary features will be hard to discern. The Proposed Development will be seen in combined views with more distant wind farms (including Wether Hill and Blackcraig Hill) but will read as a distinct scheme in the middle ground. The scale of change is judged to be medium. The geographical extent is judged to be small, as this represents views from the summit of a minor hill. **The overall magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**				
Scenario 1 (including consented) and Scenario 2 (including consented and proposed) assessment: Under both scenarios consented and proposed wind farms will increase the influence of wind farms in multiple viewing directions. The Proposed Development will be seen behind, and contained within the horizontal field of view occupied by turbines for other consented (Sanquhar II under scenario 1) and application stage (Eucanhead under scenario 2) wind farms. In this context the change in view associated with the Proposed Development will be harder to discern, and the scale of change will reduce to small. **Under both scenarios the magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				

Table 5.28 – Viewpoint 13: A702, Shinnel Water Valley

A702, Shinnel Water Valley				
Grid Reference (NGR)	282685	591957	**Figure Number**	**5.23**
LCT	163		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA

A702, Shinnel Water Valley			
Direction of View	North-west	**Distance to nearest turbine (km)**	10.9 km
Number of hubs theoretically visible	9	**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located in the Shinnel Water Valley, at the point where the A702 crosses it, to the south-east of the settlement of Tynron. It represents oblique views experienced by road users travelling in both directions. The view looks over the well wooded lower reaches of the Shinnel Water valley, which is framed by Auchengibbert Hill, to the north, and Peelton Hill, to the south. Beyond the wooded valley floor, hills further north-west around the Shinnel Water and Dalwhat Water Valleys rise to form the middle distance horizon.			
Sensitivity: Road users on this fast moving route are considered to be of medium susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium.**			
Assessment of visual effects: Nine turbine hubs and blades will be theoretically visible on the horizon, at a distance of 10.9 km in views to the north-west. Intervening woodland will screen or filter views of Turbines 1 to 4. Views will be oblique and fleeting, for road users travelling in both directions. The Proposed Development will read as a single row of turbines, with some stacking between Turbine 5 and Turbine 6. Low level ancillary features will be hard to discern at this viewing distance. The scale of change is judged to be medium-small. The geographical extent is judged to be small, as this represents a fleeting view as the road crosses the Shinnel Water Valley. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**			
Scenario 1 (including consented) assessment: No application stage wind farms will be visible from this location. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**			
Scenario 2 (including consented and proposed) assessment: Certain turbines in the consented Lorg and Euchanhead will be theoretically visible, though screened or filtered by intervening woodland. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**			

Table 5.29 – Viewpoint 14: Cairnsmore of Carsphairn

Cairnsmore of Carsphairn				
Grid Reference (NGR)	259441	597995	**Figure Number**	**5.24**
LCT	177		**Designated Landscape or Wild Land Area**	Galloway Hills RSA
Direction of View	East		**Distance to nearest turbine (km)**	10.9 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on the summit of Cairnsmore of Carsphairn. It represents views experienced by recreational receptors from this popular summit in the Galloway Hills RSA. The summit is generally accessed from Carsphairn to the south-west. As such, this view represents views experienced from the summit area. From this elevated and open vantage point, panoramic views looking over the open Southern Upland Hills are available. There are also notable areas of coniferous forest and waterbodies in lower lying valleys. Wind farms are visible in views focused to the north and east, including Windy Standard I, Windy Standard II, and Afton, in closer proximity to the north; and Wether Hill, to the south-east.				
Sensitivity: Recreational receptors at this summit are considered to be of medium susceptibility. The viewpoint is located in the Galloway Hills RSA, indicating a higher value. It highlights the nature of more open views from the valley side on the eastern edge of the RSA. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible at a distance of 10.9 km, in views to the east. Due to the elevated nature of the view, the proposed turbine hubs largely sit below the distant horizons, with the blades seen above. Turbine 4, which sits at a lower elevation, will be fully contained below the distant horizon. The Proposed Development will read as a single row of turbines. There will be no overlapping of turbine towers, and the wind farm will read as a single coherent group of turbines. At this viewing distance, low level ancillary features will be hard to discern. The Proposed Development will be seen in				

Cairnsmore of Carsphairn
combined views with a number of other wind farms (including Wether Hill and Twentyshilling Hill) but read as a distinct scheme in the middle to longer distance. The scale of change is judged to be medium. The geographical extent is judged to be small, as this represents views from the summit, which tends to be accessed from the south-west. **The overall magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**
Scenario 1 (including consented) and Scenario 2 (including consented and proposed) assessment: Under both scenarios consented and proposed wind farms will notably increase the influence of wind farms in multiple viewing directions. Under both scenarios the Proposed Development will be seen alongside turbines in the consented Sanquhar II (under scenario 1) and the application stage Euchanhead and Lorg Wind Farms (under scenario 2), and will narrow the gap between these schemes and the cluster formed by the consented Manquhill and Cornharrow. In this context the change in view associated with the Proposed Development will be harder to discern. However, as the Proposed Development will continue to extend the influence of a new wind farm group in middle distance views and contribute to the overall intensification of wind farms in the view the scale of change is judged to be medium. **Under both scenarios the magnitude of change is judged to be medium and taking account of the medium-high sensitivity will result in a Moderate (significant) visual effect.**

Table 5.30 – Viewpoint 15: Crawick Multiverse

Crawick Multiverse				
Grid Reference (NGR)	277638	611786	**Figure Number**	**5.25**
LCT	165		**Designated Landscape or Wild Land Area**	None
Direction of View	South-west		**Distance to nearest turbine (km)**	14.5 km
Number of hubs theoretically visible	3		**Number of turbines with blades theoretically visible**	5
Location, description of existing view and potential receptors: This viewpoint is located in Nithsdale, near Sanquhar, to the north-east of the Site. It represents views experienced by recreational receptors from a high point in the landscape sculpture visitor attraction created by Charles Jenks. From this elevated position in Crawick Multiverse, large scale views looking along and across Nithsdale towards hills in the Southern Uplands to the south, are available. The foreground of the view is characterised by features in Crawick Multiverse, with sculpted landforms and standings stones. The valley floor beyond is characterised by pasture and woodland, through which the River Nith meanders. There are dispersed farms and a higher concentration of buildings around Sanquhar, to the south-east. Further south the landform rises to form the valley side of Nithsdale, with areas of rough pasture, moorland and blocks of coniferous forest. Wind Farms including Whiteside Hill, Sanquhar Community, Twentyshilling Hill, Sandyknowe and Hare Hill are visible on the horizon, in views from the south-east through to the south-west. There are some smaller turbines visible in closer proximity, on the valley side to the south of Nithsdale, in views to the west.				
Sensitivity: Recreational receptors visiting Crawick Multiverse are considered to be of medium susceptibility. The viewpoint is not located within a designated or protected landscape. The value of the view is somewhat increased given its associated with the sculpture park, and being from a high point in the park. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: Three turbine hubs and five turbine blades will be visible above the horizon to the south of Nithsdale, at a distance of 14.5 km. There will be no overlapping of turbines and the Proposed Development will read as a coherent group of turbines, contained largely behind the horizon to the south of the broad valley of Nithsdale. The intervening landform will screen low level ancillary elements. The Proposed Development will read as a distinct scheme, with a clear gap between it and Whiteside Hill Wind Farm further west. The Proposed Development will be seen in the context of horizons which are altered by wind farms, to the south of Nithsdale. The scale of change is judged to be small. The geographical extent is judged to be small, as this represents a localised view from a high point in Crawick Multiverse. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				
Scenario 1 (including consented) and Scenario 2 (including consented and proposed) assessment: Under both scenarios consented and proposed wind farms will increase the influence of wind farms in uplands to the north and south of Nithsdale, in views to the north, west and south. The Proposed Development will be seen behind, and contained within the horizontal field of view occupied by turbines for other consented (Sanquhar II under scenario 1) and application stage (Cloud Hill under scenario 2) wind farms. In this context the change in view associated with the Proposed Development will be harder to discern, and the scale of change will reduce to barely perceptible. **Under both scenarios the magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				

Crawick Multiverse

Table 5.31 – Viewpoint 16: A713, near Stroangassel

A713, near Stroangassel				
Grid Reference (NGR)	260330	587294	**Figure Number**	**5.26**
LCT	165		**Designated Landscape or Wild Land Area**	Galloway Hills RSA
Direction of View	North-east		**Distance to nearest turbine (km)**	15.1 km
Number of hubs theoretically visible	0		**Number of turbines with blades theoretically visible**	7
Location, description of existing view and potential receptors: This viewpoint is located on the A713, as it passes through the Glenkens. It represents oblique views for road users travelling north, on this popular tourist route through the Glenkens. From the roadside, the view looks over the well wooded valley of the Glenkens. There are glimpses of electricity infrastructure and a water tower, seen between areas of woodland in the valley floor. Further north-east properties along the B7000, on the eastern higher valley side, are apparent. Hills to the eastern side of the valley, including Makilston Hill (294 m AOD), rise to form the middle-distance horizon. There are smaller scale vertical features apparent on the horizon, such as wood pole distribution lines and single turbines.				
Sensitivity: Road users on this fast moving route are considered to be of medium susceptibility. The viewpoint is located in the Gallway Hills RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium.**				
Assessment of visual effects: 7 blades tips are theoretically visible, at a distance of 15.1 km in views to the north-east. However, woodland cover across intervening horizons will screen or filter views of the Proposed Development. **No visual effects are predicted from this location.**				
Scenario 1 (including consented) and Scenario 2 (including consented and proposed) assessment: Given the limited nature of visibility of the Proposed Development, there will be no scope for cumulative interactions with other wind farms. **No visual effects are predicted from this location.**				

Table 5.32 – Viewpoint 17: A76, south of Closeburn

A76, south of Closeburn				
Grid Reference (NGR)	289835	592011	**Figure Number**	**5.27**
LCT	Edge of 163		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	North-west		**Distance to nearest turbine (km)**	17.6 km
Number of hubs theoretically visible	8		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on the A76, to the south of the settlement of Closeburn. It represents views experienced by road users travelling north on this tourist route, on the approach to the settlement in Nithsdale. The view looks over the roadside fence and flatter areas of pasture, with dry stone wall field boundaries, in the valley floor. Houses on the southern edge of the settlement of Closeburn are apparent in the middle distance. Beyond this, hills in the Thornhill Uplands, to the west of Nithsdale, rise to form the longer distance horizon. These hills are generally open in character, with some areas of woodland and forest on the lower slopes. Turbines in Wether Hill, Whiteside Hill, Sanquhar Community and Twentyshilling Hill Wind Farms are visible on the horizon, in combined views to the north-west.				
Sensitivity: Road users on this fast moving route are considered to be of medium susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. It highlights the nature of more open views from the valley floor. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium.**				
Assessment of visual effects: Eight turbine hubs and nine turbine blades will be visible on the horizon, at a distance of 17.6 km in views to the north-west. Views will be slightly oblique, for road users travelling north. The Proposed Development will read as a single row of turbines. There will be no overlapping of turbine towers, and the wind farm will read as a single coherent group of turbines. Turbine 4, which sits at a lower elevation, will be notably lower on the skyline with the hub screened by the landform. Low level ancillary				

A76, south of Closeburn
features will also be screened by the landform. The Proposed Development will be seen in combined views with other wind farms on the horizon, in views to the north-west. It will read as a distinct scheme in the gap between Wether Hill and Whiteside Hill Wind Farms. The scale of change is judged to be small. The geographical extent is judged to be small, as this represents somewhat fleeting views when travelling north, on the approach to Closeburn. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**
Scenario 1 (including consented) assessment: Consented wind farms, including Sanquhar II, Sanquhar Six and Cornharrow will increase the influence of wind farms, seen on distant horizons to the north-west. The Proposed Development will be seen in this context, reading as a further discreet wind farm on the horizon. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further increase the influence of wind farms, seen on distant horizons to the north-west, and closer proximity horizons to the east, through Harestanes West Wind Farm. The Proposed Development will be seen on distant horizons to the north-west, likely reading as an extension to a larger wind farm cluster including the application stage Lorg and Euchanhead Wind Farms. **The overall magnitude of change is judged to be low and taking account of the medium sensitivity will result in a Minor (not significant) visual effect.**

Table 5.33 – Viewpoint 18: Durisdeer Rig

Durisdeer Rig				
Grid Reference (NGR)	289721	603703	**Figure Number**	**5.28**
LCT	Edge of 177		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	South-west		**Distance to nearest turbine (km)**	18.5 km
Number of hubs theoretically visible	8		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is located on a footpath on the lower western flank of Durisdeer Rig, to the east of the village of Durisdeer. It represents views experienced by recreational receptors on the descent towards this small settlement, on the eastern valley side of Nithsdale. The settlement below is set in woodland, which screens or filters views over Nithsdale for a number of residents. From this slightly elevated position, large scale views looking along and across Nithsdale, towards hills in the Southern Uplands to the south-west, are available. Properties set in woodland in the settlement of Durisdeer are apparent in the foreground. The valley floor beyond is characterised by pasture, woodland and dispersed farms. Further south-west the landform rises to form the valley side of Nithsdale, with areas of rough pasture, moorland and blocks of coniferous forest. Wind Farms to the south of Nithsdale, including Twentyshilling Hill, are visible on the horizon.				
Sensitivity: Recreational receptors on this footpath are considered to be of medium susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: Eight turbine hubs and nine turbine blades will be visible above the horizon to the west of Nithsdale, at a distance of 18.5 km. There will be no overlapping of turbine towers and the Proposed Development will read as a coherent group of turbines. The intervening landform will screen the hub of Turbine 4 and low level ancillary elements. The Proposed Development will be seen in the context of horizons to the west of Nithsdale which are influenced by a number of wind farms. It will read as a distinct scheme, seen between the more distant Wether Hill and Twentyshilling Hill Wind Farm, the latter of which is closer to the viewpoint. Given the viewing distance and context of views, the scale of change is judged to be small. The geographical extent is judged to be small, as this represents a relatively localised view from an upland track above (and east) of the village of Durisdeer. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				
Scenario 1 (including consented) assessment: Consented wind farms, including Sanquhar II, will increase the influence of wind farms in combined views to the west of Nithsdale. The Proposed Development will be seen behind certain turbines in the consented Sanquhar II. It is likely to read as an extension of this scheme, extending the influence of wind turbines on horizons to the west (and west of Nithsdale). **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				

Durisdeer Rig
Scenario 2 (including consented and proposed) assessment: Application stage wind farms will further increase the influence of wind farms in combined views to the west of Nithsdale. The Proposed Development will be seen alongside the application stage Euchanhead and behind certain turbines in the consented Sanquhar II. It is likely to read as an extension to this larger wind farm cluster, extending the influence of wind turbines on horizons to the west (and west of Nithsdale). **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**

Table 5.34 – Viewpoint 19: East Mount Lowther

East Mount Lowther				
Grid Reference (NGR)	287857	609991	**Figure Number**	**5.29**
LCT	177		**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	South-west		**Distance to nearest turbine (km)**	20 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors: This viewpoint is on the summit of East Mount Lowther, to the north-east of the Site. It represents views experienced by recreational receptors from a popular summit in the Lowther Hills. From this elevated and open vantage point, panoramic views looking over the surrounding Lowther Hills, and towards hills in the Southern Uplands further south-west, are available. The distinctive golf ball radar structure is visible on Lowther Hill, to the north-east of the view. In views to the south-west, the valley of Nithsdale is visible, characterised by pasture, woodland and dispersed farms. Beyond Nithsdale the landform rises towards hills in the Southern Uplands. Wind Farms including Twentyshilling Hill, Sandyknowe and Hare Hill are visible on the horizon.				
Sensitivity: Recreational receptors at this summit are considered to be of medium-high susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. The summit is also a promoted OS 360 degree viewpoint. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**				
Assessment of visual effects: All nine turbine hubs and blades will be visible above the distant horizon in views to the south-west, at a distance of 20 km. The Proposed Development will read as a single row of turbines. Given the viewing distant, ancillary elements will be hard to discern. The Proposed Development will be seen behind turbines in Twentyshilling Hill Wind Farm. It may even read as an extension to this scheme, from this viewing angle. It will also be seen in front of longer distance views of Wether Hill Wind Farm and in combined views with other operational wind farms, including Windy Standard I and II; South Kyle; Sandy Knowe; and Hare Hill Phase 1 and 2. Given the viewing distance and relationship with operational wind farms, the scale of change is judged to be small. The geographical extent is judged to be small, as this represents a localised view from around the summit, which is typically access via a ridge from the north. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				
Scenario 1 (including consented) and Scenario 2 (including consented and proposed) assessment: Under both scenarios consented and proposed wind farms will increase the influence of wind farms, particularly in the uplands in views to the west and north. Under both scenarios the Proposed Development will be seen behind, and slightly extending the horizontal field of view occupied by turbines to the east of the consented Sanquhar II (under scenario 1) and application stage Lorg and Euchanhead (under scenario 2) **Under both scenarios the magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**				

Table 5.35 – Viewpoint 20: Cairn Table

Cairn Table				
Grid Reference (NGR)	272553	624243	**Figure Number**	**5.30**
LCT	Edge of 213		**Designated Landscape or Wild Land Area**	None
Direction of View	South		**Distance to nearest turbine (km)**	25.5 km
Number of hubs theoretically visible	9		**Number of turbines with blades theoretically visible**	9
Location, description of existing view and potential receptors:				

Cairn Table
This viewpoint is located at the eastern cairn of Cairn Table. It represents views experienced from the summit, which is on the eastern fringes of the Uplands and Moorlands LLA (East Ayrshire). There is a popular walking route between the summit and the settlement of Muirkirk, to the north. Views of this nature will therefore open up on the approach to the summit. From this elevated and open vantage point, panoramic views looking over the surrounding hills to the north of Nithsdale, and towards hills in the Southern Uplands further south, are available. There are glimpses into some of the lower surrounding valleys, including the River Ayr Valley to the north, and the settlement of Muirkirk. There are notable areas coniferous forest and wind farms visible in multiple directions, including close proximity views of Kennoxhead Wind Farm to the north-east; and a number of wind farms in the Southern Uplands to the south of Nithsdale.
Sensitivity: Recreational receptors at this minor summit are considered to be of medium susceptibility. The viewpoint is located on the edge of the Uplands and Moorland LLA (East Ayrshire), indicating a higher value. **On balance, taking account of the judgements of susceptibility and value, the overall sensitivity of this viewpoint is judged to be medium-high.**
Assessment of visual effects: All nine turbine hubs and blades will be visible above the distant horizon in views to the south, at a distance of 25.5 km. The Proposed Development will read as a single row of turbines with some overlapping of turbine towers (Turbine 1 and Turbine 5). Given the viewing distance, ancillary elements will be hard to discern. The Proposed Development will be seen behind turbines in Whiteside Hill Wind Farm, likely reading as part of a larger cluster of wind farms including Wether Hill, Sanquhar Community and Sandy Knowe Wind Farm (and its extension). Given the viewing distance and relationship with operational wind farms, the scale of change is judged to be small. The geographical extent is judged to be small, as this represents a localised view from around the summit, which is typically accessed via Muirkirk from the north. **The overall magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**
Scenario 1 (including consented) and Scenario 2 (including consented and proposed) assessment: Under both scenarios consented and proposed wind farms will increase the influence of wind farms in the uplands in multiple viewing directions, including uplands to the north and south of Nithsdale, in views towards the Site. The Proposed Development will be seen behind, and contained within the horizontal field of view occupied by turbines for other consented (Lethans, Lethans Extension, and Sanquhar II under scenario 1) and application stage (including Euchanhead under scenario 2) wind farms. In this context the change in view associated with the Proposed Development will be harder to discern, and the scale of change will reduce to barely perceptible. **Under both scenarios the magnitude of change is judged to be low and taking account of the medium-high sensitivity will result in a Minor (not significant) visual effect.**

Effects on Settlements

5.10.18 Visual effects on settlements are assessed through considering the likely effects of the Proposed Development both in isolation, and in the context of other existing, consented and proposed wind energy developments. The settlements to be assessed were identified through analysis of the ZTVs shown on **Figures 5.2 and 5.3** and are described in **Table 5.5**. The assessment of likely visual effects on settlements is detailed in the following table.

Table 5.36 – Moniaive

Moniaive			
LCT	166	**Designated Landscape or Wild Land Area**	Thornhill Uplands RSA
Direction of View	North-west	**Distance to nearest turbine (km)**	7.6 km to Viewpoint 9
Representative Viewpoint	Viewpoint 9 - Moniaive		
Location, description of existing view and potential receptors: This settlement is located in a valley near the confluence of the Dalwhat, Craigdarroch and Cairn Water. The A702 passes through the settlement, from the south to east, with a central section of the road forming the High Street. The B729 enters the settlement from the west and there are minor roads to the north-east and north-west of the settlement. Most of the properties in the settlement are period, with more modern properties on a cul-de-sac to the north-west and around the fringes of the settlement. The Dalwhat Water, which passes along the northern edge of the settlement, provides a well wooded setting. Built form within the settlement often limits the availability of outward views, especially from the historic core. The surrounding valley sides provide a rural backdrop where outward views are available. There are some outward views to the south of the settlement (from the A702), looking towards the northern side of the Dalwhat Water valley, and as represented by Viewpoint 9: Moniaive.			
Sensitivity: Residents are considered to be of high susceptibility. The viewpoint is located in the Thornhill Uplands RSA, indicating a higher value. **The overall sensitivity of this viewpoint is judged to be high.**			
Assessment of visual effects:			

Moniaive
Figure 5.2b highlights that Moniaive is on the fringes of the ZTV, with potential visibility increasing to the south of the settlement. In reality, buildings within the settlement itself, and woodland along the northern edge of the settlement (in the Dalwhat Water Valley) will limit the potential for outward views to the north-west, looking towards the Proposed Development. From a very localised area to the south of the settlement, as represented by Viewpoint 9: Moniaive, four turbine hubs and eight turbine blades will be theoretically visible above the horizon to the north-west, at a distance of approximately 7.6 km. The valley side to the north of the Dalwhat Water Valley and intervening woodland will screen certain hubs, lower turbine towers and low level ancillary features. Turbine 9, the most easterly turbine, will appear the most prominent. From this viewing angle the Proposed Development will read as a compact group of turbines, with some stacking. The scale of change is judged to be medium-small. The geographical extent is judged to be small, as this represents a local in extent view from the south of the settlement. This is not representative of views from across the settlement, including the historic core. **Given the scale of change and very localised nature of visibility, this is not judged to result in significant effects over the settlement as a whole. Minor visual effect (not significant).**
Scenario 1 (including consented) assessment: Where more open views to the south-west are available, the consented Fell and Troston Loch Wind Farms are theoretically visible in successive views. Intervening vegetation will largely screen or filter views of these schemes. In this context effects associated with the Proposed Development will reflect those identified in the primary assessment. **The overall magnitude of change is judged to be low and taking account of the high sensitivity will result in a Minor (not significant) visual effect.**
Scenario 2 (including consented and proposed) assessment: Views of application stage schemes will largely be screened by the landform. One blade tip at Euchanhead is theoretically visible in combined views to the north-west, though it is likely to be imperceptible. **The overall magnitude of change is judged to be low and taking account of the high sensitivity will result in a Minor (not significant) visual effect.**

Effects on Routes

5.10.19 Sequential visual effects are assessed through considering the likely effects of the Proposed Development both in isolation, and in the context of other existing, consented and proposed wind energy developments on key routes through the study area. The routes to be assessed were identified through analysis of the ZTVs shown on **Figures 5.2 and 5.3** and are described in **Table 5.6**. The assessment of likely effects on sequential views from these routes is detailed in the following table.

Table 5.37 – Sequential Assessment

Route	Baseline Description	Sensitivity (susceptibility and value)	Representative Viewpoints	Representative Viewpoint Findings (scale of change)	Conclusion
A702	Links St Johns Town of Dalry, in the Glenkens in the west, to Thornhill, in Nithsdale to the east (refer to **Figure 5.2b**). Most of the road routes through valleys (Castlefairn, Cairn and Shinnel, from west to east). As such, the potential for views to Site is limited to short sections of the route where the road crosses the Dalwhat and Shinnel Water Valleys, offering glimpsed oblique views looking north-west up these valleys. **Figure 5.10** highlights visibility of operational wind farms from the road, including Blackcraig Hill Wind Farm, located in closer proximity to the south.	Road users on this fast moving route are considered to be of lower susceptibility. The eastern half of the route passes through the Thornhill Uplands RSA, indicating a higher value. **Overall sensitivity is judged to be medium.**	– *Viewpoint 13 – A702 Shinnel Water Valley* – *Viewpoint 9 - Moniaive*	– *Medium-small* – *Medium-small*	When travelling in both directions on the A702, the Proposed Development is visible from two short sections of the route, around Moniaive and when crossing the Shinnel water Valley. These views will be very fleeting and oblique in nature. Built form in the settlement of Moniaive will further limit actual visibility, from this section of the road with theoretical visibility. **A scale of change no greater than medium-small is predicted. Given the very fleeing and oblique nature of the views, this is not judged to result in significant sequential effects from the route overall (Minor or below).**
Southern Upland Way	The SUW broadly passes from south-west to north-east through the Study Area, between Glen Trool in the west and Moffat in the east (refer to **Figure 5.2b**). When travelling east there are a number of sections with views towards the Site, including short sections of more distant high ground either side of the Glenkens; and high ground in the Southern Uplands (including Manquhill Hill and Benbrack) to the west of the Site. When travelling west there is visibility towards the Site from around Lowther Hill; on the northern side of	Recreational users on this long-distance trail are considered to be of medium susceptibility. The route passes through a number of locally designated landscapes in Dumfries and Galloway, South Lanarkshire and the Scottish Borders, indicating a higher value. Overall sensitivity is judged to be medium-high.	– *Viewpoint 6 – Benbrack* – *Viewpoint 8 - Southern Upland Way near Cloud Hill* – *Viewpoint 19 – East Mount Lowther (representative of views from Lowther Hill)*	– *Large* – *Medium-large* – *Small*	When travelling east there are a number of sections with views towards the Proposed Development, including short sections of more distant high ground either side of the Glenkens (small scale of change); and high ground in the Southern Uplands within 10 km to the west of the Site (including Manquhill Hill and Benbrack) where the scale of change will be medium to large. There will also be localised and direct effects where the proposed Site access (using existing forestry access tracks) crosses the SUW, to the north of Manquhill Hill. When travelling west there is visibility from around Lowther Hill (small scale of change); on the northern side of Nithsdale on the descent to Sanquhar (small scale of change); and from

Route	Baseline Description	Sensitivity (susceptibility and value)	Representative Viewpoints	Representative Viewpoint Findings (scale of change)	Conclusion
	Nithsdale on the descent to Sanquhar; and from Cloud Hill and the higher northern side of the Scaur Water Valley. The SUW routes between and past a number of operational wind farms in the Southern Uplands between Nithsdale and the Glenkens (including Whiteside Hill, Twentyshilling Hill and Wether Hill Wind Farms). Higher open ground along the route offers long to short range views of these schemes, and wider operational wind farms in the landscape.				Cloud Hill and the higher northern side of the Scaur water Valley (medium-large scale of change). **When travelling in both directions, and from open and higher sections of the route within approximately 10 km, a Moderate to Major (significant) effect is predicted. Whilst significant, these effects will be very localised in nature. As the route passes to the west of the Proposed Development it passes through large areas of coniferous forest, which will limit actual visibility.** From wider sections of the SUW visibility is limited and the increased viewing distance will result in effects falling below the threshold of significance.
Core Paths within 5 km	There are a number of Core Paths within 5 km of the Site, focused to the west and north of the Site, as mapped on **Figure 5.2b**. Those with potential views to the Site include Core Paths which follow the same alignment as the SUW (considered above); paths on forest tracks to the east of the SUW including sections of track within the Shinnel and Dalwhat Water Valleys; and a short section of Core Path to the west of the SUW, on the lower eastern flank of Blacklorg Hill. Most of these Core Paths route through areas of coniferous forest, which will limit the availability of outward views when the forest is established.	Recreational users on Core Paths are considered to be of medium susceptibility. Core Paths within 5 km to the north and west of the Site are largely outside of any landscape designations, indicating a lower value. **Overall sensitivity is judged to be medium.**	– *Viewpoint 6 - Benbrack* – *Viewpoint 3 – Cairnhead Sculpture* – *Viewpoint 4 - Shinnelhead*	– *Large* – *Small* – *Medium*	Effects on Core Paths which follow the SUW are considered above. From other Core Paths within 5 km, the majority of these route through coniferous forest along forestry access tracks, which will limit the availability of views towards the Site when in place. **There are short sections with more open views on higher ground to the west of Cairnhead and to the west of Shinnelhead (medium scale of change).** **Moderate effects are predicted from the Core Path network, from sections with open views, within 5 km.**

5.11 Cumulative Sequential Effects

5.11.1 In terms of cumulative sequential effects, and in a theoretical future cumulative baseline which includes consented schemes (scenario 1) and application stage (scenario 2) there are a number of consented and proposed wind farms across the study area, as shown on **Figure 5.7a**, which will be theoretically visible from key routes. **Figures 5.8 to 5.10** highlight standalone and combined visibility of key wind farm groups with the Proposed Development, including from the routes considered in detail in the sequential assessment.

5.11.2 From the **A702**, Divot Hill, Knockman Hill, Margree and Fell Wind Farms will introduce closer proximity views of consented wind farms (scenario 1) from a section of the route in uplands either side of Castlefairn Valley. Roadside forestry will provide a level of screening or filtering, whilst this remains in place. Fleeting views looking north-west up the Dalwhat Water Valley, towards a larger wind farm cluster including Manquhill and Cornharrow will also be available. Application stage schemes (scenario 2) will have less of an influence on views from this road.

5.11.3 Views towards the Proposed Development will be very fleeting in nature, and in this revised cumulative context, effects are not judged to differ under either assessment scenario.

5.11.4 From the **SUW** Manquhill and Sanquhar II (both consented and considered under scenario 1) will introduce close proximity views of wind farms to the route. Lorg, Euchanhead and Whiteside Hill (application stage and considered under scenario 2) will add further close proximity views, with the SUW passing through the Lorg Wind Farm site.

5.11.5 When travelling east, and when visible, the Proposed Development will be seen behind Cornharrow and Manquhill Wind Farms, and in the context of Sanquhar II (and Lorg and Euchanhead under scenario 2). When travelling west, the Proposed Development will be seen behind Sanquhar II (and in the context of Lorg and Euchanhead under scenario 2). Apart from some of the closest proximity views, this will typically 'dilute' the effects associated with the Proposed Development. As such, significant sequential effects will remain from open and upland sections of the SUW to the south-west of the Site (and to the south of Lorg Wind Farm) within approximately 3 km. Beyond this, effects will fall below the threshold of significance.

5.11.6 From **Core Paths** within 5 km, the consented Sanquhar II, Manquhill and Cornharrow (scenario 1) and application stage Lorg and Euchanhead (scenario 2) will be the key change in the cumulative baseline. Outside of the SUW, considered above, and from more open and upland sections of the Core Path network to the east of the SUW, the Proposed Development will be seen in the context of these schemes. Given its proximity, effects will remain similar to those assessment in the primary assessment.

5.12 Combined Cumulative Effects

5.12.1 With regard to combined (in-combination) cumulative effects, GLVIA3 states that this should include "*all past, present and future proposals together with the new project*". GLVIA3 (paragraph 7.13) acknowledges that "*assessing combined effects involving a range of different proposals at different stages in the planning process can be very complex*". The following assessment of combined effects provides a high-level appraisal of all built and unbuilt wind farms, including the Proposed Development.

5.12.2 As shown on **Figure 5.7a-b** and **Figure 5.7c**, wind farms across the study area are focused within upland areas, outside of the more settled valleys. They also generally avoid locally designated landscapes. Should all consented and proposed wind farms be constructed, wind farm development across the Southern Uplands between Nithsdale and the Glenkens (and west of the Thornhill Uplands RSA) will be extensive.

5.12.3 In combination with operational, consented and proposed wind farms, the Proposed Development will slightly intensify the combined landscape effects of wind turbines in the Southern Uplands between Nithsdale and the Glenkens (and west of the Thornhill Uplands RSA). It will push wind farm development slightly further west into the upper reaches of Appin Burn Valley. However, it will still be read in the context of this large wind farm cluster contained in forested and open parts of the Southern Uplands.

5.12.4 In terms of visual effects, and in wider upland views (where combined effects can be more readily appreciated) from the north and west, the Proposed Development will typically be seen behind this larger wind farm cluster. In wider upland views from the south and east, it will generally be seen in the context of this large wind farm cluster.

5.12.5 As such, the Proposed Development will contribute to a slight intensification of combined cumulative effects on the landscape and in views across the study area. However, given that the Proposed Development will generally read as part of a larger emerging group of wind farms in the Southern Uplands between Nithsdale and the Glenkens (and west of the Thornhill Uplands RSA), it will fit with

the emerging wind farm pattern. The combined cumulative effects of wind farm development across the study area will be similar whether the Proposed Development is present or absent.

5.13 Mitigation and Monitoring

Mitigation and Monitoring During Construction

5.13.1 Measures such as arrangements for vegetation and soil removal, storage and replacement and the restoration of disturbed areas after construction will be detailed in a Construction Environmental Management Plan (CEMP) (refer to **Technical Appendix 4.1**) produced following consent and prior to construction, which will also include reference to a Construction Method Statement.

Mitigation and Monitoring During Operation

5.13.2 Measures to reduce effects upon the landscape resource and visual amenity were predominantly achieved through the design of the Proposed Development (embedded mitigation). The appearance of the Proposed Development in views from nearby properties, settlements and hills formed a key consideration in the design development. The approach to the design is detailed further in **Chapter 3:Site Description and Design Evolution.**

5.14 Decommissioning Phase

Predicted Decommissioning Effects

5.14.1 At the end of the Proposed Development's operational life (approximately 50 years), a decision will be made as to whether to refurbish, remove, or replace the generating plant installed. If refurbishment or replacement were to be chosen, then the relevant consent applications will be made. If a decision were to be taken to decommission the Proposed Development, this will entail the removal of all the turbine components and associated buildings. Access tracks and underground cables would be left in place and foundations removed to a depth of 1 m below ground level to avoid environmental effects from removal.

Mitigation and Monitoring During Decommissioning

5.14.2 A Decommissioning Plan will set out environmental protection measures and restoration principles which will be implemented. This Decommissioning Plan would be agreed with LPA. Landscape and visual effects during this phase will be similar in nature to the construction phase.

5.15 Summary

5.15.1 It should be noted that wind turbines, as tall man-made structures, introduce features which are likely to bring about landscape and visual change. Measures to reduce effects upon the landscape resource and upon views and visual amenity are predominantly achieved through the design of the Proposed Development, as described in **Chapter 3: Site Description and Design Evolution**. As all mitigation for landscape and visual effects is embedded within the final design for the Proposed Development, all effects summarised in this section are effectively residual effects as no additional mitigation is proposed.

5.15.2 **Table 5.38** below summarises the predicted effects of the Proposed Development on the landscape and visual amenity of the study area. Where effects are significant this is highlighted.

Table 5.38 – Summary of Significant Landscape and Visual Effects

Receptor	Primary LVIA Assessment Findings	Scenario 1 Cumulative Assessment	Scenario 2 Cumulative Assessment
Effects of Construction (and decommissioning) on The Site	**Major (significant)**	N/a	N/a
Operational effects on Landscape Receptors			
The Site	**Major (significant)**	N/a	N/a
178 - Southern Uplands with Forest (Host LCT)	**Moderate (significant) landscape effects within 3 km**, reducing to Minor and below (not significant) beyond	**Moderate (significant) landscape effects within 3 km**, reducing to Minor and below (not significant) beyond	**Moderate (significant) landscape effects within 3 km**, reducing to Minor and below (not significant) beyond. To the immediate north-west of the Site, and under this scenario, it is recognised that Lorg and Euchanhead Wind Farms is likely

Receptor	Primary LVIA Assessment Findings	Scenario 1 Cumulative Assessment	Scenario 2 Cumulative Assessment
			to exert a stronger influence over the landscape.
LCT 166 – Upland Glens	**From the Shinnel Water Valley, between Appin Lodge and north of Tynron (approximately 8 km radius), Moderate (significant) landscape effects**. From other areas of the LCT effects will fall below threshold of significance.	**From the Shinnel Water Valley, between Appin Lodge and north of Tynron, Moderate (significant) landscape effects.** From other areas of the LCT effects will fall below threshold of significance.	**From the Shinnel Water Valley, between Appin Lodge and north of Tynron, Moderate (significant) landscape effects**. From other areas of the LCT effects will fall below threshold of significance.
LCT 177 – Southern Uplands	**Moderate (significant) landscape effects within 5 km (from the unit to the north of the Site),** reducing to Minor and below (not significant) beyond	Minor and below (not significant)	Minor and below (not significant)
LCT 175 – Foothills	**Moderate (significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water valley),** reducing to Minor and below (not significant) beyond	**Moderate (significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water valley),** reducing to Minor and below (not significant) beyond	**Moderate (Significant) landscape effects within 5 km (from the unit to the south of the Shinnel Water valley),** reducing to Minor and below (not significant) beyond
LCT 161 – Pastoral Valley	Minor (not significant)	Minor (not significant)	Minor (not significant)
Thornhill Uplands RSA	The Proposed Development is likely to alter certain more perceptual aspects, as recognised in the RSA description, from parts of the Shinnel Water Valley. These effects will be very local in extent. From more upland areas, outward views of wind farms, to the west of the RSA, already influence character. The Proposed Development will be seen in this context. As such, and overall, the Proposed Development will not result in significant effects on the RSA designation.	Overall, the Proposed Development will not result in significant effects on the RSA designation.	Overall, the Proposed Development will not result in significant effects on the RSA designation.
Operational effects on Visual Receptors			
VP1 - Colt Hill (0.5 km)	**Major (significant)**	**Major (significant)**	**Major (significant)**
VP2 - Bail Hill, Striding Arch (0.9 km)	**Major (significant)**	**Major (significant)**	**Major (significant)**
VP3 - Cairnhead, Striding Arch (1.2 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP4 – Shinnelhead (1.6 km)	**Moderate (significant)**	**Moderate (significant)**	Minor (not significant)
VP5 - High Appin (2 km)	**Major (significant)**	**Major (significant)**	**Major (significant)**
VP6 - Benbrack, Striding Arch (2.9 km)	**Major (significant)**	**Major (significant)**	**Moderate (significant)**

Receptor	Primary LVIA Assessment Findings	Scenario 1 Cumulative Assessment	Scenario 2 Cumulative Assessment
VP7 - Shinnel Water Valley near Craigencoon (3.5 km)	**Major (significant)**	**Major (significant)**	**Major (significant)**
VP8 - Southern Upland Way near Cloud Hill (6.7 km)	**Moderate (significant)**	Minor (not significant)	Minor (not significant)
VP9 – Moniaive (7.6 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP10 - Auchengibbert Hill (8.1 km)	**Moderate (significant)**	**Moderate (significant)**	Minor (not significant)
VP11 - Cairnkinna Hill (8.4 km)	**Moderate (significant)**	Minor (not significant)	Minor (not significant)
VP12 - Blackcraig Hill (9.4 km)	**Moderate (significant)**	Minor (not significant)	Minor (not significant)
VP13 - A702 Shinnel Water Valley (10.9 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP14 - Cairnsmore of Carsphairn (10.9 km)	**Moderate (significant)**	**Moderate (significant)**	**Moderate (significant)**
VP15 - Crawick Multiverse (14.5 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP16 - A713, near Stroangassel (15.1 km)	N/a	N/a	N/a
VP17 - A76, south of Closeburn (17.6 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP18 - Durisdeer Rig (18.5 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP19 - East Mount Lowther (20 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
VP20 - Cairn Table (25.5 km)	Minor (not significant)	Minor (not significant)	Minor (not significant)
Moniaive (settlement)	Minor (not significant)	Minor (not significant)	Minor (not significant)
A702	Minor (not significant)	Minor (not significant)	Minor (not significant)
Southern Upland Way	**When travelling in both directions, and from open and higher sections of the route within approximately 10 km, a Moderate to Major (significant) effect is predicted. Whilst significant, these effects will be very localised in nature.**	**Significant sequential effects will remain from open and upland sections of the SUW to the south-west of the Site (and to the south of Lorg Wind Farm) within approximately 3 km.** Beyond this, and given the relationship with consented wind farms, effects will fall below the threshold of significance.	**Significant sequential effects will remain from open and upland sections of the SUW to the south-west of the Site (and to the south of Lorg Wind Farm) within approximately 3 km.** Beyond this, and given the relationship with consented and proposed wind farms, effects will fall below the threshold of significance.
Core Paths within 5 km	**Moderate effects are predicted from the Core Path network, from sections with open views, within 5 km.**	**Given proximity, effects will remain similar to those assessment in the primary assessment.**	**Given proximity, effects will remain similar to those assessment in the primary assessment.**

5.16 References

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