Fred. Olsen Renewables

Chapter 6

Landscape and Visual Impact Assessment

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Glossary

Term	Definition
Core paths	The basic framework of key routes that provide for the main needs of users. Core paths are identified by local authorities according to Scottish access legislation.
Cumulative effect	The additional changes caused by a Proposed Development in conjunction with other similar developments or as the combined effect of a set of developments, taken together.
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a means of drawing together by the developer, in a systematic way, a description of the development and information relating to of the likely significant environmental effects arising from a proposed development
Environmental Impact Assessment Report	A document reporting the findings of the EIA and produced in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 Regulation 5
Land cover	The surface cover of the land, usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.
Land use	What land is used for, based on broad categories of functional land cover, such as urban and industrial use and the different types of agriculture and forestry.
Landform	The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical processes.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that can distinguish one landscape from another.
Landscape effects	Effects on the landscape as a resource in its own right.
Landscape elements	Individual parts which make up the landscape, such as, for example, trees, hedges and buildings.
Landscape quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal.
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a wide variety of reasons.
Magnitude of change	A judgement that combines judgements about the size and scale of the effect, the extent over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.

Term	Definition
Mitigation	Any process, activity or design intended to avoid, reduce, remedy or compensate for adverse landscape and visual effects of a development.
Perception	Combines the sensory (that we receive through our senses) with the cognitive (our knowledge and understanding gained from many sources and experiences).
Photomontage	A visualisation which superimposes an image of a Proposed Development upon a photograph or series of photographs.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.
Significance	A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.
Susceptibility	The ability of a defined landscape or visual receptor to accommodate the specific Proposed Development.
The Proposed Development	The Proposed Windy Standard I Repower Wind Farm
The Proposed Development Area	The area shown delineated by the red line boundary shown on Figure 1.2
Visual amenity	The overall pleasantness of the views that people enjoy of their surroundings, which provides a visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual effects	Effects on specific views and on the general visual amenity experience by people.
Visual receptor	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation	A computer simulation, photomontage or other technique illustrating the predicted appearance of a development.
ZTV	Zone of Theoretical Visibility; a map, usually digitally produced, showing areas of land from where a development is theoretically visible.

List of Abbreviations

Abbreviation	Description
ANO	Air Navigation Order
AOD	Above Ordnance Datum
CAA	Civil Aviation Authority
cd	Candela
DGC	Dumfries and Galloway Council
DGWLCS	Dumfries and Galloway Windfarm Landscape Capacity Study
EALWCS	East Ayrshire Landscape Wind Capacity Study
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment
FLS	Forestry Land Scotland
FSA	Forestry Study Area
GDL	Gardens and Designed Landscape
GIS	Geographic Information System
GLVIA3	Guidelines for Landscape and Visual Impact Assessment: Third Edition
LCT	Landscape Character Type
LDP	Local Development Plan
LLA	Local Landscape Area
LVIA	Landscape and Visual Impact Assessment
NCR	National Cycle Routes
NSA	National Scenic Area
OPEN	Optimised Environments Limited
OS	Ordnance Survey
RoW	Rights of Way
RSA	Regional Scenic Area
RVAA	Residential Visual Amenity Assessment
SA	Scenic Area
SLA	Sensitive Landscape Area/Special Landscape Area
SNH	Scottish Natural Heritage (now NatureScot)
SALWCS	South Ayrshire Landscape Wind Capacity Study
SUW	Southern Upland Way
WSI	Windy Standard I
WSII	Windy Standard II
WSIII	Windy Standard III
WLA	Wild Land Area
ZTV	Zone of Theoretical Visibility

6.1 STATEMENT OF COMPETENCE

6.1.1 This Landscape and Visual Impact Assessment (LVIA) has been prepared by James Welch FLI BA Hons, Chartered Landscape Architect and Director at Optimised Environments Limited ('OPEN'), and Anna Webster, Landscape Architect (BA Hons) at OPEN. James and Anna have written in excess of 40 LVIAs during their combined 50 years' experience in the renewable energy and LVIA fields. OPEN is a registered practice with the Landscape Institute.

6.2 INTRODUCTION

6.2.1 This Chapter of the Environmental Impact Assessment Report (EIAR) contains the LVIA for Windy Standard I Repower (the Proposed Development). The LVIA considers the effects on the landscape and visual resource of the Proposed Development Area and the wider study area, including effects on landscape elements, landscape character, views and visual amenity, and cumulative effects.

6.2.2 The assessment covers the construction, operational and decommissioning phases of the Proposed Development. The Proposed Development consists of eight turbines with a blade tip height of up to 200 m and associated long-term and short-term infrastructure.

6.2.3 Significant effects on the local landscape and visual resource have been identified in the process of the LVIA, and these are described in full in this Chapter. In summary, the assessment has indicated that visual effects may be significant up to a maximum of approximately 11 km away from the Proposed Development to the north of the site. It is important to note that the closer significant effects are assessed in relation to operational and under construction wind farms and will become not significant when wind farms that are currently consented but not yet constructed are taken into consideration. To the south, east and west, significant visual effects in relation to the current baseline of operational and under construction wind farms are unlikely to extend beyond approximately 8 -10 km away due to the more intermittent and limited visibility of the Proposed Development and its appearance in relation to other wind farms.

6.2.4 Effects on landscape character are more limited in their extent, with the assessment indicating that significant effects are likely to be contained within less than 6.5 km of the Proposed Development.

6.2.5 In all cases, the landscape and visual effects of the Proposed Development are limited by the level of operational, under construction and consented wind energy development that is found in the vicinity, including on the Proposed Development Area itself. The general trend of this development is towards larger turbines, and while the Proposed Development will introduce turbines of a larger size than are currently operational, under construction or consented, it will not appear out of scale with these turbines due to the limited differential in size and its location at the centre of the development 'cluster', which ensures that it will almost always be seen in the context of other, closer, turbines.

6.2.6 As well as limiting the effects of the Proposed Development itself, this level of baseline wind energy development ensures that no significant cumulative effects will arise as a result of the Proposed Development.

6.2.7 There are no residential properties within a 2 km radius of the nearest turbine and, in accordance with best practice guidance[1], a Residential Visual Amenity Assessment (RVAA) is therefore not required.

6.2.8 This Chapter is supported by one technical appendix: Appendix 6.1: LVIA Methodology.

6.2.9 This Chapter includes the following sections:

- legislation, policy and guidance;
- method of assessment;
- consultation;
- baseline;
- assessment of potential effects; and
- conclusions.

6.3 LEGISLATION, POLICY AND GUIDANCE

6.3.1 The following information sources have been considered in carrying out this assessment:

- Dumfries and Galloway Council Local Development Plan (LDP) 2 (October 2019);
- Dumfries and Galloway Council LDP Supplementary Guidance Part 1 Wind Energy Development: Development Management Considerations Appendix 'C' Dumfries & Galloway Wind Farm Landscape Capacity (June 2017);
- East Ayrshire LDP (February 2017);
- East Ayrshire LDP Non-statutory Planning Guidance East Ayrshire Landscape Wind Capacity Study (2018);
- East Ayrshire LDP Background Paper: Sensitive Landscape Areas (2015);
- Landscape Institute and IEMA (2013). Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3). Routledge;
- Landscape Institute (2019). Visual Representation of Development Proposals: Landscape Institute Technical Guidance Note 06/19;
- Landscape Institute (2019). Technical Guidance Note 2/19 Residential Visual Amenity Assessment;
- NatureScot (2020). Assessing Impacts on Wild Land Areas Technical Guidance;
- NatureScot (2021). Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments;
- Scottish Government (2014). Scottish Planning Policy (revised December 2020);
- SNH (June 2014). Map of Wild Land Areas;
- SNH (2017). Description of Wild Land Areas;
- SNH (2017). Siting and Designing Wind Farms in the Landscape Version 3a;
- SNH (2017). Visual Representation of Wind Farms, Version 2.2;
- SNH (2018). Working draft Guidance for Assessing the Effects on Special Landscape Qualities; and
- South Ayrshire Landscape Wind Capacity Study Updated (2018).

6.4 METHOD OF ASSESSMENT

Study Area/Survey Area

6.4.1 The initial step in the LVIA is the establishment of the study area to be considered in the assessment. An area with a radius of 45 km from the nearest wind turbine in the Proposed Development has been utilised in this assessment, as shown in Figure 6.1, and a Zone of Theoretical Visibility (ZTV) analysis has been carried out for this area.

6.4.2 Mapping of the various characteristics and features of the study area that are relevant to the assessment (i.e. landscape character types (LCTs), principal visual receptors and landscape-planning designations) is presented with both 45 km and 20 km study areas in order that the wider context can be seen at a broad scale while the local context can also be clearly seen.

[1] • Landscape Institute (2019) *Technical Guidance Note 2/19 Residential Visual Amenity Assessment*. Landscape Institute

6.4.3 The cumulative assessment was initiated with a search of a 60 km radius study area. This was subsequently reduced to focus on a group of wind farm sites that lies within 20 km of the Proposed Development, in agreement with NatureScot.

Baseline Survey Methodology

6.4.4 The assessment is initiated through a desk study of the site and 45 km radius study area. This study identifies aspects of the landscape and visual resource that may need to be considered in the landscape and visual assessment, including landscape planning designations, landscape character typology, wild land areas (WLAs), operational and potential cumulative wind farms, and views from routes (including roads, railway lines, National Cycle Network (NCN routes), core paths and long-distance walking routes), and settlements.

6.4.5 The desk study utilises Geographic Information System (GIS) and Resoft Windfarm software to explore the potential visibility of the Proposed Development. The resultant ZTV diagrams and wirelines provide an indication of which landscape and visual receptors are likely to be relevant to the assessment.

6.4.6 Field surveys are carried out throughout the 45 km radius study area, although the focus is on the areas shown on the ZTV to gain theoretical visibility of the Proposed Development. The baseline field survey has five broad stages.

- A preliminary familiarisation around the study area in order to visit the aspects of the landscape and visual resource that have been identified through the desk study and verify their existence and importance. Important features and characteristics that have not become apparent through the desk study are also identified, and particularly sensitive receptors are noted in order to inform the design process.
- A visit onto the Proposed Development Area in order to establish the potential of the site for wind farm development and identify the most suitable areas for development in landscape and visual terms, along with any constraints that may restrict the developable area.
- Further field survey around the study area, concurrent with the design process for the Proposed Development, to identify those receptors that are likely to be particularly important in the assessment and inform the layout design, possible turbine height, and the extent of the Proposed Development.
- The identification of representative viewpoints to include in the LVIA, including a wide range of receptors, landscape character, and directions and distances from the Proposed Development.
- An on-site review of the special qualities/wildness qualities of landscape planning designations and WLAs, which informs the likely effect of the Proposed Development on these qualities and its effect on the overall integrity of the designations/WLAs.

Methodology for the Assessment of Effects

6.4.7 The LVIA is intended to determine the effects that the Proposed Development will have on the landscape and visual resource. The methodology used for the assessment of effects accords with best practice guidance[2] (referred to hereafter as GLVIA3) and is described in full in Appendix 6.1. A summary is provided below.

Approach to the Assessment

6.4.8 The Proposed Development is a repowering project, and the Proposed Development site is currently occupied by the operational Windy Standard I (WSI) Wind Farm. The operational wind farm is therefore a part of the current baseline situation on the site. However, the Proposed Development will not in reality be seen in direct relation to the operational WSI wind farm as this will be decommissioned prior to the construction and operation of the Proposed Development. The Proposed Development will therefore be assessed with two different baseline scenarios.

- Firstly, the *comparative baseline* scenario: this scenario assumes the presence of WSI (including turbines and associated infrastructure) as a baseline feature, as it currently occupies the Proposed Development site and is a physical element of the landscape that is seen in views and which contributes to the perception of the existing landscape character. In this scenario, the assessment of effects on each landscape and visual receptor considers a comparison between the effects of the operational WS I Wind Farm and the Proposed Development.
- Secondly, the *restored baseline* scenario: this scenario assumes that WS I has been decommissioned and the site restored, so that the Proposed Development will be added to the site *without* consideration of the baseline presence of WSI turbines (although the majority of the access track infrastructure will remain in place as it is to be upgraded and reused for the Proposed Development). In this scenario, the assessment of effects on each landscape and visual receptor considers the effects arising from the addition of the Proposed Development, including upgraded access tracks, to an undeveloped baseline on the Proposed Development site and does not consider any comparison with the effects of the WSI turbines.

6.4.9 Both of these scenarios are considered throughout the detailed assessment of effects on landscape receptors, viewpoints and visual receptors as described in this Chapter.

Categories of Effects

6.4.10 In this assessment, potential effects on the landscape and visual resource are grouped into five categories:

- **Effects on Physical Elements**: are restricted to the area within the Proposed Development Area and are the direct effects on the existing fabric of the site, such as the removal of forestry and alteration to ground cover. This category of effects is made up of landscape elements, which are the components of the landscape, such as moorland, that may be directly and physically affected by the Proposed Development.
- **Effects on Landscape Character**: landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape character arise either through the introduction of new elements that physically alter this pattern of elements, or through visibility of the Proposed Development, which may alter the way in which the pattern of elements is perceived. This category of effects is made up of landscape character receptors, which fall into two groups; LCTs and landscape-related designated areas.
- **Effects on WLAs**: the assessment of effects on WLAs is carried out in accordance with NatureScot guidance[3], which provides a prescriptive methodology.
- **Effects on Views**: the assessment of effects on views is an assessment of how the introduction of the Proposed Development will affect views throughout the study area (including at night-time). The assessment of effects on views is carried out in three parts:
  - an assessment of the effects that the Proposed Development will have on a series of viewpoints;
  - an assessment of the effects that the Proposed Development will have on views from principal visual receptors, which include relevant settlements and routes throughout the study area; and
  - night-time effects of visible aviation lighting on views.
- **Cumulative Effects**: arise where the study areas for two or more wind farms overlap so that both of the wind farms are experienced at proximity where they may have a greater incremental effect, or where wind farms may combine to have a sequential effect, irrespective of overlap in study areas.

[2] LANDSCAPE INSTITUTE AND IEMA (2013) *Guidelines for Landscape and Visual Impact Assessment: Third Edition*. Landscape Institute and IEMA.

[3] NATURESCOT (2020) *Assessing Impacts on Wild Land Areas Technical Guidance*. NatureScot.

Significance of Effects

6.4.11 The broad principles used in the assessment of significance of these five categories of effects are the same (other than the assessment of effects on WLAs) and are described below. The detailed methodology for the assessment of significance does, however, vary, and the specific criteria used are described in Appendix 6.1.

6.4.12 The objective of the assessment is to predict the likely significant effects that the Proposed Development will have on the landscape and visual resource. In accordance with the Environmental Impact Assessment (EIA) Regulations, the LVIA effects are assessed to be either significant or not significant. The LVIA does not define intermediate levels of significance as the EIA Regulations do not provide for these. GLVIA3 also provides guidance on this, noting that (paragraphs 3.32 and 3.33):

> *"LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects…it is not essential to establish a series of thresholds for different levels of significance of landscape and visual effects, provided that it is made clear whether or not they are considered significant"*

6.4.13 The significance of effects is assessed through a combination of two considerations; the sensitivity of the landscape receptor or view and the magnitude of change that will result from the addition of the Proposed Development. While this methodology is not reliant on the use of a matrix to arrive at the conclusion of a significant or not significant effect, a matrix is included below (Table 6.1) to illustrate how combinations of sensitivity and magnitude of change can lead to levels of effects and significant/not significant effects.

Table 6.1: Significance of effect

		Magnitude of Change					
		High	**Medium-High**	**Medium**	**Medium-Low**	**Low**	**Negligible**
Sensitivity	**High**	Major (Significant)	Major (Significant)	Major/ moderate (Significant)	Moderate (Significant/ Not Significant)	Moderate/ minor (Not Significant)	Minor (Not Significant)
	Medium-High	Major (Significant)	Major/ moderate (Significant)	Major/ Moderate (Significant)	Moderate (Significant/ Not Significant)	Moderate/ minor (Not Significant)	Minor (Not Significant)
	Medium	Major/ moderate (Significant)	Major/ Moderate (Significant)	Moderate (Significant/ Not Significant)	Moderate/ minor (Not Significant)	Minor (Not Significant)	Minor (Not Significant)
	Medium-Low	Moderate (Significant/ Not Significant)	Moderate (Significant/ Not Significant)	Moderate (Significant/ Not Significant)	Minor (Not Significant)	Minor (Not Significant)	Negligible (Not Significant)
	Low	Moderate (Significant/ Not Significant)	Moderate/ minor (Not Significant)	Minor (Not Significant)	Minor (Not Significant)	Negligible (Not Significant)	Negligible (Not Significant)

6.4.14 Effects with a level of 'major' or 'major/moderate' are considered to be significant, while effects with a 'moderate' level may be significant or not significant, subject to the assessor's professional judgement and depending on the specific relevant factors that arise at a particular landscape or visual receptor. In accordance with GLVIA3, experienced professional judgement is applied to the assessment of all effects and reasoned justification is presented in respect of the findings of each case. Effects assessed as being 'moderate/minor', 'minor' or 'negligible' are considered to be not significant.

6.4.15 A significant effect occurs where the Proposed Development will provide a defining influence on a landscape element, landscape character receptor or view. A not significant effect occurs where the effect of the Proposed Development is not material, and the baseline characteristics of the landscape element, landscape character receptor, view or visual receptor continue to provide the definitive influence. In this instance the Proposed Development may have an influence but this influence will not be definitive.

6.4.16 A significant cumulative effect will arise where a 'wind farm landscape' is created as a result of the addition of the Proposed Development to other existing or proposed wind farms, resulting in wind turbines becoming sufficiently prolific that they become a prevailing or key landscape and visual characteristic.

6.4.17 This assessment assumes clear weather and optimum viewing conditions. This means that effects that are assessed to be significant may be not significant under different, less clear conditions.

Sensitivity

6.4.18 Sensitivity is an expression of the ability of a landscape receptor or view to accommodate the Proposed Development and is determined through a combination of the value of the receptor and its susceptibility to the Proposed Development. The factors that determine these criteria are described in Appendix 6.1.

6.4.19 Levels of sensitivity (high, medium, and low) are applied in order that the judgement used in the process of assessment is apparent. Intermediate levels (medium-high and medium-low) may also be applied where the particular combination of value and susceptibility results in an intermediate definition.

Magnitude of Change

6.4.20 Magnitude of change is an expression of the extent of the effect on landscape receptors and views that will result from the introduction of the Proposed Development. The magnitude of change is assessed in terms of a number of variables, including the size and scale of the impact and the extent of the affected area. The factors that determine these criteria are described in Appendix 6.1.

6.4.21 Levels of magnitude of change (high, medium, low and negligible) are applied in order that the judgement used in the process of assessment is apparent. Intermediate levels (medium-high and medium-low) may also be applied where the particular combination of variables results in an intermediate definition.

Assessment of Cumulative Effects

6.4.22 The objective of the assessment of cumulative effects 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. It should identify the significant cumulative impacts arising from the proposed wind farm".*[4]

6.4.23 The outcome of this is the identification of any significant cumulative effects that may arise from the addition of the Proposed Development to the cumulative situation, in accordance with NatureScot guidance (2021)[5], which states that cumulative assessment should "*focus on the likely significant impacts and those which are likely to influence the outcome of the consenting process".*

[4] NATURESCOT (2021). *Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments*

[5] • NATURESCOT (2021). *Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments*

6.4.24 The LVIA assesses the incremental effect arising from the addition of the Proposed Development to the cumulative situation, and not the overall accumulation of wind farms across the study area. This accords with GLVIA3, which notes (para 7.18):

> *"Some of those involved may tend to favour a limited view focussed on the additional effects of the project being assessed, on top of the cumulative baseline. Some stakeholders may however be more interested in the combined effects of all the past, present and future proposals, including the proposed scheme…Assessing combined effects of different proposals at different stages in the planning process can be very complex. Furthermore the assessor will not have assessed the other schemes and cannot therefore make a fully informed judgement. A more comprehensive overview of the cumulative effects must rest with the competent authority."*

6.4.25 The cumulative development of wind farms within a particular area may build up to create different types of landscape or visual context. Significant cumulative landscape or visual effects will arise where a 'wind farm landscape' is created as a result of the addition of the Proposed Development to other existing or proposed wind farms, resulting in wind turbines becoming sufficiently prolific that they become a prevailing or key landscape and visual characteristic.

6.4.26 The cumulative assessment considers various scenarios of wind farm development.

- The *current baseline* wind energy development scenario includes wind farms that are operational or under construction (e.g. wind farms where there is certainty as to the presence and influence of these sites as features in views).
- The *predicted baseline* wind energy development scenario includes consented wind farms as well as operational and under construction wind farms (e.g. wind farms where there is a high degree of certainty as to the presence and influence of these sites as features in views).
- *Application stage* wind farm scenarios are considered on a case-by-case basis for each viewpoint and landscape receptor as there is no certainty as to whether or not they will form features in views in the future.

6.4.27 The methodology used in the assessment of cumulative effects differs in some respects from that used in the rest of the assessment and is described in Appendix 6.1. It is important to remember that the objective of the cumulative assessment is different from the assessment of effects of the Proposed Development itself; in the cumulative assessment, the intention is to establish whether or not the addition of the Proposed Development to various scenarios of other relevant existing and proposed wind farms may lead to wind farm development becoming a prevailing characteristic of a view. Significant cumulative effects will arise where a 'wind farm landscape' is apparent in a view as a result of the addition of the Proposed Development to other existing or proposed wind farms, so that the Proposed Development results in wind turbines becoming sufficiently prolific that they become a prevailing or key visual characteristic.

6.4.28 It should be noted that if the Proposed Development itself is assessed to have a significant effect, it does not necessarily follow that the cumulative effect will also be significant.

Assessing Night-Time Effects

6.4.29 Five of the turbines in the Proposed Development (T1, T3, T4, T5 and T7) will be fitted with visible aviation lighting in accordance with the Air Navigation Order (ANO) and Civil Aviation Authority (CAA) requirements and there is therefore potential for the Proposed Development to be visible at night.

6.4.30 A description of the proposed turbine lighting is found within Chapter 13: Aviation and Existing Infrastructure.

6.4.31 The nature of the daytime and night-time visual effects arising from wind farms differs considerably, as visibility of the turbines during daylight hours gives rise to effects that are different to the night-time effects of lighting. As a result, the assessment of sensitivity and magnitude of change for night-time effects is carried out using different criteria/definitions than those for daytime views. Appendix 6.1 describes the approach to assessing night-time effects in more detail.

Nature of Effects

6.4.32 The 'nature of effects' relates to whether the effects of the Proposed Development are positive (beneficial) or negative (adverse). Effects may also be neutral. Guidance provided in GLVIA3 states that "*thought must be given to whether the likely significant landscape and visual effects are judged to be positive (beneficial) or negative (adverse) in their consequences for landscape or for views and visual amenity*". The nature of effect is therefore one that requires interpretation and reasoned professional opinion.

6.4.33 In relation to many forms of development, the EIAR will identify positive and negative effects under the term 'nature of effect'. The landscape and visual effects of wind farms are difficult to categorise in either of these brackets as, unlike other disciplines, there are no definitive criteria by which these effects can be measured as being categorically positive or negative. For example, in disciplines such as noise or ecology it is possible to identify the nature of the effect of a wind farm by objectively quantifying its effect and assessing the nature of that effect in prescriptive terms. However, this is not the case with landscape and visual effects, where the approach combines quantitative and qualitative assessment.

6.4.34 In this assessment, positive, neutral and negative effects are defined as follows:

- Positive effects contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, beneficial attributes. The removal of undesirable existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components.
- Neutral effects occur where the Proposed Development neither contributes to nor detracts from the landscape and visual resource, and is accommodated with neither beneficial nor adverse effects, or where the effects are so limited that the change is hardly noticeable. A change to the landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation.
- Negative effects are those that detract from or weaken the landscape and visual resource through the introduction of elements that contrast, in a detrimental way, with the existing characteristics of the landscape and visual resource, or through the removal of elements that are key in its characterisation.

6.4.35 This assessment adopts a precautionary approach, which assumes that significant landscape and visual effects will be weighed on the negative side of the planning balance, although positive or neutral effects may arise in certain situations. Unless it is stated otherwise, the effects of the Proposed Development on landscape and visual amenity are overall considered to be negative.

Duration and Reversibility

6.4.36 The effects of the Proposed Development are of variable duration, and are assessed as short-term or long-term, and permanent or temporary/reversible. It is anticipated that the operational life of the Proposed Development will be 35 years. The wind turbines and site access tracks will be apparent during this time, and these effects are considered to be long-term.

6.4.37 Other infrastructure and operations such as the construction processes and plant (including tall cranes for turbine erection) and construction and storage compounds will be apparent only during the initial construction period of the Proposed Development and are considered to be short-term effects. Borrow pit excavation will also be short-term as borrow pits will be restored at the end of the construction process.

6.4.38 The reversibility of effects is variable. The most apparent effects on the landscape and visual resource, which arise from the presence of the wind turbines, are temporary/reversible as the turbines will be removed on decommissioning. The effects of the tall cranes and heavy machinery used during the construction and decommissioning periods are also temporary.

6.4.39 The access tracks may be left in situ at decommissioning at the request of the landowners, or they will otherwise be covered with topsoil and left to naturally regenerate. Turbine foundations (except for the top 1 m which would be removed) and underground cabling will be left in-situ below ground with no residual landscape and visual effects.

6.4.40 In order to avoid repetition, the duration and reversibility of effects are not reiterated throughout the assessment.

Assessment Limitations

6.4.41 The principal limitations in the assessment arise through the production of graphics and visualisations.

6.4.42 The following limitations in the theoretical production of ZTVs should be considered:

- The ZTVs illustrate the 'bare ground' situation, and do not take into account the screening effects of vegetation, buildings, or other local features that may prevent or reduce visibility.
- The ZTVs do not indicate the reduction in visibility that occurs with increased distance from the Proposed Development. The nature of what is visible from 3 km away will differ markedly from what is visible from 20 km away, although both are indicated on the ZTVs as having the same level of visibility.
- There is a wide range of variation within the visibility shown on the ZTV. For example, an area shown on the blade tip ZTV as having visibility of all of the turbines may gain views of the smallest extremity of blade tips, or of full turbines. This can make a considerable difference in the effects of the Proposed Development on that area.

6.4.43 These limitations mean that while the ZTVs are used as a starting point in the assessment, providing an indication of where the Proposed Development will theoretically be visible, the information drawn from the ZTVs cannot be completely relied upon to accurately represent visibility of the Proposed Development.

6.4.44 NatureScot guidance[6] provides the following information on the limitations of visualisations in Annex A:

"Visualisations of wind farms have a number of limitations which you should be aware of when using them to form a judgement on a wind farm proposal. These include:

- *A visualisation can never show exactly what the wind farm will look like in reality due to factors such as: different lighting, weather and seasonal conditions which vary through time and the resolution of the image.*
- *The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100 % accurate.*
- *A static image cannot convey turbine movement, or flicker or reflection from the sun on the turbine blades as they move.*
- *The viewpoints illustrated are representative of views in the area,but cannot represent visibility at all locations.*
- *To form the best impression of the impacts of the wind farm proposal these images are best viewed at the viewpoint location shown.*
- *The images must be printed at the right size to be viewed properly (260mm by 820mm).*
- *You should hold the images flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, you should stand at arm's length from the image presented to gain the best impression.*
- *It is preferable to view printed images rather than view images on screen. If you do view images on screen you should do so using a normal PC screen with the image enlarged to the full screen height to give a realistic impression. Do not use a tablet or other device with a smaller screen to view the visualisations described in this guidance."*

6.4.45 This information makes several notable points in relation to the importance of assessment on site rather than from visualisations (bullet points one, two, three and five) and the representative nature of viewpoints (bullet point four).

6.4.46 In relation to the first of these points, it should be noted that the assessment within this LVIA is carried out from observations in the field, with copies of visualisations, and this process cannot be replicated by a desk-based review of visualisations. It is, however, acknowledged that not all viewpoints are accessible to all people, and when this is the case, the visualisations and text provided in this LVIA should provide a suitable indication of the likely effects of the Proposed Development, its appearance, and the context in which it will be seen.

6.4.47 In relation to the second point, it is important to note that almost all of the viewpoints are intended to be representative of the views that may be gained of the Proposed Development from the wider study area, and not just a series of very specific locations. NatureScot guidance[7] provides the further information on this aspect of assessment in paragraph 69:

"It is important to stress that viewpoint assessment forms just one part of LVIA. Because of the powerful nature of viewpoint images and the widespread recognition of some of the locations from where these are taken, there is often over-emphasis of their role. However, LVIA also includes assessment of the following:

- *the extent and pattern of visibility throughout the study area (considering those areas from where a wind farm would not be seen, as well as those areas from where it may);*
- *views of the proposed wind farm from areas of potential visibility other than the selected viewpoints; and*
- *sequential views."*

6.5 CONSULTATION

6.5.1 Table 6.2 provides details of consultations undertaken with relevant regulatory bodies, together with actions undertaken by the Applicant in response to consultation feedback. This table focusses on those aspects of the consultation that require acknowledgement or a response within the LVIA.

Table 6.2: Consultation

Consultation Response	Applicant Action
Dumfries and Galloway Council (DGC) scoping opinion	
No response	
DGC email correspondence 27 February and 9 March 2022	
OPEN emailed to request confirmation of the proposed approach to the cumulative assessment. No response received.	

[6] SNH (2017) *Visual Representation of Wind Farms, Version 2.2*. SNH

[7] SNH (2017) *Visual Representation of Wind Farms, Version 2.2*. SNH

Consultation Response	Applicant Action
DGC email correspondence 23 March 2022	
DGC is content with OPEN's proposed approach to add the under construction/recently operational wind farms at Sandy Knowe, South Kyle and Windy Rig into the viewpoint photomontages. This is because these sites are shown at various levels of construction in the viewpoint photographs, and their inclusion in photomontages will give greater consistency. DGC also agreed with OPEN's suggestion that the consented Windy Standard III (WSIII) is added into photomontages.	Where relevant, Sandy Knowe, South Kyle and Windy Rig wind farms have been added into the photomontages. In some views, this has involved the 'removal' of turbines, wholly or partly built, from baseline viewpoint photographs and replacement with photomontaged turbines. As a result of further discussion, WSIII has not been shown on photomontages, in agreement with NatureScot. This is because construction has not yet commenced. This was noted to D&G, with no response received.
NatureScot scoping opinion 8 December 2021	
The 'baseline panorama and wireline' visuals should show the existing wind farm turbines (to be repowered), but these turbines should not be included in the single page wireline or the final photomontage visual.	The methodology used for the LVIA visualisations is in accordance with that outlined by NatureScot in their scoping opinion.
The operational WSI turbines should be included in the cumulative assessment baseline.	The operational WSI turbines are included in the cumulative assessment baseline.
The cumulative assessment should follow NatureScot guidance (March 2021). The assessment should not simply be about the magnitude of change to a view or landscape area, but should encompass the specific cumulative aspect.	The cumulative assessment follows NatureScot guidance (March 2021) and the LVIA includes specific consideration of cumulative effects.
The Merrick WLA lies approximately 19 km to the south-west of the proposal. NatureScot asks that they are contacted to discuss the potential need for/scope of a wild land assessment once the proposal has been finalised. NatureScot request a wireline for a location (with hub visibility) on a north-easterly-facing slope in the area to the east of Shalloch on Minnoch.	ZTVs for the WLA and the requested wireline were issued to NatureScot on 1 February 2022. See subsequent correspondence below for final agreement.
NatureScot is content that effects on National Scenic Areas (NSAs) be scoped out, noting that the nearest NSA is the Fleet Valley NSA, which is over 38 km to the south.	Noted, NSAs have been scoped out of the assessment.
NatureScot highlights the relative sensitivity of the WLA and Dark Sky Park to turbine lighting and the need for an assessment of turbine lighting, including night-time visualisations for a few selected locations. NatureScot requests discussion with the applicant regarding proposed locations for night-time visualisations.	As assessment of turbine lighting is included in the LVIA. The proposed locations for night-time visualisations were issued to NatureScot on 1 February 2022. See subsequent correspondence below for final agreement.
NatureScot is content with the proposed viewpoint list, but requests the production of a combined ZTV of the Proposed Development with the operational WSI turbines in order to show 'new' areas of visibility, where additional viewpoint locations should be considered. If a Wild Land Assessment is required, NatureScot may request additional assessment points and wirelines where relevant.	Combined ZTVs were issued to NatureScot on 1 February 2022. See subsequent correspondence below for final agreement.
NatureScot email correspondence 9 February 2022	
NatureScot is content that an assessment of effects on wild land can be scoped out of the LVIA.	Noted; the LVIA does not include an assessment of effects on wild land.
NatureScot is content with the location of the three proposed night-time viewpoints (i.e. Water of Ken, New Cumnock, and Loch Doon).	Noted; the LVIA includes night-time visualisations and an assessment of effects at these locations.
NatureScot is content with the viewpoint locations as originally proposed (in the scoping report).	Noted; the LVIA includes visualisations from and a written assessment of effects at the viewpoints that were proposed at scoping stage.
NatureScot email correspondence 8 March 2022	
NatureScot is content with the proposed approach to the cumulative assessment, and in particular the cumulative ZTVs that are included in the figures.	Noted; the LVIA includes cumulative ZTVs for the cumulative wind farms as agreed with NatureScot (Figures 6.15a-y).
NatureScot email correspondence 28 March 2022	
NatureScot is content with OPEN's proposed approach to add the under construction/recently operational wind farms at Sandy Knowe, South Kyle and Windy Rig into the viewpoint photomontages. This is because these sites are shown at various levels of construction in the viewpoint photographs, and their inclusion in photomontages will give greater consistency. NatureScot suggested that OPEN's proposal to add the consented WSIII into photomontages would not be beneficial or helpful, given that construction of this wind farm has not yet commenced.	Where relevant, Sandy Knowe, South Kyle and Windy Rig wind farms have been added into the photomontages. In some views, this has involved the 'removal' of turbines, wholly or partly built, from baseline viewpoint photographs and replacement with photomontaged turbines. In line with NatureScot's advice, WSIII has not been shown on photomontages.

6.6 BASELINE

6.6.1 The baseline section of the LVIA records the existing conditions of the study area. Establishing a baseline helps to gain an understanding of what makes the landscape distinctive and what its important components or characteristics are, and is instrumental in the identification of the landscape character receptors, visual receptors and viewpoints that are included in the assessment. This section is presented under the following headings:

- landscape character;
- landscape planning designations;
- WLAs;

- principal visual receptors;
- viewpoints; and
- cumulative wind farm developments.

6.6.2 This section also identifies which of the landscape and visual receptors have potential to undergo significant effects or significant cumulative effects as a result of the Proposed Development, and therefore require to be assessed in detail. This is implemented through a two-stage filtering process.

6.6.3 Firstly, ZTV mapping is used to identify those receptors which will gain any theoretical visibility of the Proposed Development. Where there is no theoretical visibility, receptors are discounted from the assessment. Secondly, the receptors that are shown on the ZTV mapping to gain some visibility of the Proposed Development have a preliminary assessment to ascertain if they have potential to undergo a significant effect or a significant cumulative effect. This preliminary assessment considers various factors that contribute to the sensitivity of the receptor, the magnitude of change that will result from the addition of the Proposed Development, and the level of visibility and influence of cumulative wind farms. Various methods of verification are used in this second stage, including site visits, ZTVs, GIS mapping, wirelines and aerial photography.

6.6.4 In the case of some receptors, this preliminary assessment indicates that the landscape or visual receptor does not have potential to undergo a significant effect or significant cumulative effect as a result of the Proposed Development, despite gaining visibility of it. This is most frequently due to a combination of the limited predicted level of visibility and influence of the Proposed Development and/or other wind farms, and the limited sensitivity of the receptor. Where this is the case, the potential effects on the receptor do not need to be assessed in any further detail and at this stage they can be discounted from the assessment.

6.6.5 Where the preliminary assessment indicates that there is potential for the receptor to undergo a significant effect or cumulative effect as a result of the Proposed Development, this is assessed in detail subsequently in this chapter.

Landscape Character

6.6.6 In 2019, NatureScot published a national dataset of the characterisation of Scotland's landscape as a digital resource[8]. On its website, NatureScot notes that "*Where there are topic-specific landscape capacity or sensitivity studies, they would take precedence for informing that development type, e.g. windfarms*."

6.6.7 Recent topic-specific 'capacity' studies for wind energy development have been produced for each local authority in the study area, as follows:

- Dumfries and Galloway Windfarm Landscape Capacity Study (DGWLCS) (adopted 2017);
- East Ayrshire Landscape Wind Capacity Study (EALWCS) (2018);
- East Renfrewshire Wind Energy Study (2012);
- North Ayrshire Supplementary Landscape Wind Capacity Study (2013);
- Scottish Borders Council Wind Energy Consultancy Update of Wind Energy Landscape Capacity and Cumulative Impact Study (2016);
- South Ayrshire Landscape Wind Capacity Study (SALWCS) (2018); and
- South Lanarkshire Landscape Capacity Study for Wind Energy (2016).

6.6.8 These capacity studies have been drawn upon as the basis of the character assessment in this LVIA.

6.6.9 These sources divide the landscape into tracts that are referred to as LCTs and, at a more local level, landscape units. Landscape character across the study area is shown on Figures 6.3a (to a 45 km radius) and 6.3b (to a 20 km radius) and is shown in relation to the blade tip ZTV on Figures 6.10a (45 km radius) and 6.10b (20 km radius). Many areas of landscape character are extensive, sometimes covering several areas that are geographically separate, and the effects of the Proposed Development can vary widely across a single LCT. Several of the LCTs have therefore been divided into 'units', and these are shown on Figures 6.3a, 6.3b, 6.10a and 6.10b. The landform of the site and study area is also of relevance in the survey of landscape character, and this is shown in Figure 6.2.

6.6.10 The Proposed Development Area lies within an extensive area of Southern Uplands that straddles the local authority areas of Dumfries and Galloway and East Ayrshire. The landscape character of this upland area is variously covered by Southern Uplands with Forest LCT (19a) (Dumfries and Galloway); Southern Uplands with Forestry LCT (20c) (East Ayrshire); East Ayrshire Southern Uplands LCT (20a) (East Ayrshire); and Southern Uplands LCT (19) (Dumfries and Galloway).

6.6.11 The turbines and the majority of site infrastructure lie within the Carsphairn unit of Southern Uplands with Forest LCT (19a) (Dumfries and Galloway) and Southern Uplands LCT (19) (Dumfries and Galloway), which have a great many similarities in terms of landscape character but are distinguished by differing forestry cover.

Landscape Character Types Included in the Detailed Assessment

6.6.12 Table 6.3 includes the preliminary assessment of the LCTs and units that are found in a 20 km radius study area and indicates which of them are considered to have potential to undergo a significant effect as a result of the Proposed Development (including cumulative effects), as well as those that do not require further detailed assessment. The LCTs and units that do have potential to undergo a significant effect, or significant cumulative effect, as a result of the Proposed Development are assessed in full subsequently in this chapter.

6.6.13 The assessment of effects on landscape character focuses on a local study area that covers a 20 km radius from the nearest turbine (shown on Figure 6.3b and in conjunction with the blade tip ZTV on Figure 6.10b). This 20 km radius has been ascertained through a preliminary assessment of effects on landscape character, which indicated that significant effects on landscape character are very unlikely to arise beyond approximately 6-8 km from the nearest turbine.

Table 6.3: Preliminary assessment of LCTs within the 20 km study area

LCT/Unit	Comment
LCTs included in detailed assessment due to influence/visibility of the Proposed Development	
Southern Uplands LCT (D&G 19) – Carsphairn unit	The Proposed Development lies partly within this LCT.
Southern Uplands with Forest LCT (D&G 19a) – Carsphairn unit	The Proposed Development lies partly within this LCT.
Southern Uplands with Forestry LCT (East Ayrshire 20c)	The Proposed Development lies adjacent to part of this LCT and the ZTV shows intermittent theoretical visibility.
East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – Benty Cowan Hill unit	The Proposed Development lies a minimum of approximately 3.6 km from this unit and the ZTV shows intermittent theoretical visibility.
East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – Hare Hill unit	The Proposed Development lies a minimum of approximately 1.5 km from this unit and the ZTV shows intermittent theoretical visibility.

[8] NatureScot (2019). *Landscape character dataset* [online] Available from https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions [Accessed 3 February 2022]

LCT/Unit	Comment
East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – west Afton unit	The Proposed Development lies a minimum of approximately 600 m from this unit and the ZTV shows intermittent theoretical visibility.
Narrow Wooded River Valleys LCT (D&G 4) – Ken unit	The Proposed Development lies a minimum of approximately 4.3 km from this unit and the ZTV shows very intermittent and limited theoretical visibility.
Southern Uplands with Forest LCT (D&G 19a) – Ken unit	The Proposed Development lies a minimum of approximately 2.4 km from this unit and the ZTV shows intermittent theoretical visibility.
Upland glen LCT (East Ayrshire 14)	The Proposed Development lies a minimum of approximately 1 km from this unit and the ZTV shows intermittent theoretical visibility.
LCTs not included in detailed assessment: limited and/or distant visibility/influence of the Proposed Development	
East Ayrshire Lowlands LCT (East Ayrshire 7d)	The ZTV shows intermittent theoretical visibility from a minimum of approximately 12.5 km away. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Enoch Hill, Pencloe Forest, South Kyle and WSIII (see Viewpoints 9 and 15), ensuring that it will not constitute a new influence on landscape character. The Proposed Development is unlikely to have a discernible effect on landscape character.
East Ayrshire Plateau Moorlands LCT (East Ayrshire 18a)	The ZTV shows intermittent theoretical visibility from a minimum of approximately 11.5 km away. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Afton, Hare Hill and Pencloe Forest (see Viewpoint 14), ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Foothills LCT (D&G 18) – Dalmacallan unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of over 15 km away. The Proposed Development is unlikely to have an effect on landscape character.
Foothills LCT (D&G 18) – Keir unit	The Proposed Development lies a minimum of approximately 11.8 km from this unit, with negligible theoretical visibility from these closer areas. Slightly higher levels of theoretical visibility are gained from over 24 km away. The Proposed Development will be seen in conjunction with (and from a greater distance than) Afton, Lorg and Windy Rig wind farms, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Foothills LCT (D&G 18) – Nithsdale unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of just under 20 km away. The Proposed Development is unlikely to have an effect on landscape character.

LCT/Unit	Comment
Foothills LCT (D&G 18) – Tynron unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of over 18 km away. The Proposed Development is unlikely to have an effect on landscape character.
Foothills with Forest LCT (D&G 18a) - Rhinns of Kells unit	The Proposed Development lies a minimum of approximately 10 km from this unit, with very intermittent and limited theoretical visibility shown on the ZTV. The Proposed Development will be seen in conjunction with (and from a greater distance than) South Kyle, Windy Rig and WSIII wind farms, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Foothills with Forest LCT (D&G 18a) - Stroan unit	The Proposed Development lies a minimum of approximately 11.5 km from this unit, and the ZTV shows intermittent and limited theoretical visibility. The Proposed Development will be seen in conjunction with Lorg, Troston Loch, Wether Hill and Windy Rig wind farms, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Foothills with Forest west of Doon Valley LCT (East Ayrshire and South Ayrshire 17b)	The ZTV shows intermittent and limited theoretical visibility from a minimum of approximately 14.5 km away. The Proposed Development will be seen in direct conjunction with (and further away than) a number of other wind farms including Benbrack Variation, South Kyle, Windy Rig and WSIII (see Viewpoint 11), ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Foothills with Forest and Opencast Mining LCT (East Ayrshire 17a)	The Proposed Development lies a minimum of approximately 8 km from this unit, with negligible theoretical visibility from these closer areas. Higher levels of theoretical visibility are gained from over 10 km away. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Enoch Hill, Pencloe Forest, South Kyle and WSIII, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Foothills with Forest and Wind Farm LCT (South Ayrshire 17c)	The Proposed Development lies a minimum of approximately 19 km from this LCT, and the ZTV shows very intermittent theoretical visibility from this closer area. The Proposed Development will be seen in direct conjunction with (and further away than) a number of other wind farms including Benbrack Variation, South Kyle and WSIII, ensuring that it will not constitute a new influence on landscape character. The Proposed Development is unlikely to have a discernible effect on landscape character.

LCT/Unit	Comment
Intimate Pastoral Valley LCT (South Ayrshire 13)	The ZTV shows very intermittent and limited theoretical visibility from a minimum of approximately 15.8 km away. The Proposed Development is unlikely to have an effect on landscape character.
Lowland River Valley LCT (East Ayrshire 9)	The ZTV shows intermittent theoretical visibility from a minimum of approximately 16 km away. The Proposed Development will be seen in conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Enoch Hill, Pencloe Forest, South Kyle and WSIII, ensuring that it will not constitute a new influence on landscape character. The Proposed Development is unlikely to have a discernible effect on landscape character.
Rugged Granite Upland LCT (D&G 21) – Merrick unit	This LCT lies just on the edge of the 20 km radius, and the ZTV shows very intermittent and limited theoretical visibility from a minimum of 21.5 km away. The Proposed Development will be seen in conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Pencloe Forest, South Kyle and WSIII (see Viewpoint 19), ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Rugged Granite Upland LCT (D&G 21) – Rhinns of Kells unit	The Proposed Development lies a minimum of approximately 9.5 km from this unit and the ZTV shows intermittent and theoretical visibility. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational, under construction and consented wind farms, including Benbrack Variation, South Kyle, Windy Rig and WSII and III, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Rugged Granite Upland with Forest LCT (D&G 21a) – Merrick unit	The ZTV shows negligible theoretical visibility from a minimum of just under 20 km away. The Proposed Development is unlikely to have an effect on landscape character.
Rugged Uplands with Lochs and Forest LCT (East Ayrshire 21)	The Proposed Development lies a minimum of approximately 8.2 km from this unit and the ZTV shows intermittent theoretical visibility from a minimum of approximately 9.5 km away. The closer visibility is limited and very intermittent, and further screening is provided by forestry (e.g. Viewpoint 12). Where it is visible, the Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational, under construction and consented wind farms, including Benbrack Variation, South Kyle, Windy Rig and Windy Standard II (WSII) and III, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Rugged Uplands with Lochs and Forest LCT (South Ayrshire 21)	The Proposed Development lies a minimum of approximately 15 km from this LCT, and the ZTV shows very intermittent theoretical visibility. The Proposed Development will be seen in direct conjunction with (and further away than) a number of other wind farms including Benbrack Variation, South Kyle and WSIII (see Viewpoint 18), ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Southern Uplands LCT (D&G 19) LCT – Nithsdale unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of approximately 8.5 km away. The Proposed Development will be seen in conjunction with Afton, Lorg, Pencloe Forest and Sanquhar Six wind farms, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Southern Uplands LCT (D&G 19) LCT – north-west Lowthers unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of just under 13.5 km away. The Proposed Development will be seen in conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Afton, Hare Hill, Pencloe Forest, Sanquhar and Sanquhar Six (see Viewpoint 13) ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Upland Basin LCT (East Ayrshire 15)	The Proposed Development lies a minimum of approximately 6.5 km from this unit with limited theoretical visibility from these closer areas. Higher levels of theoretical visibility are gained from beyond approximately 8 km away. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Afton and Pencloe Forest, with South Kyle and Enoch Hill seen further to the west, at closer proximity (see Viewpoints 5 and 7). This ensures that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Upland Glens LCT (D&G 10) - Castlefairn and Dalwhat unit	The ZTV shows negligible theoretical visibility from a minimum of approximately 16.5 km away. The Proposed Development is unlikely to have an effect on landscape character.
Upland Glens LCT (D&G 10) - Scar unit	The ZTV shows negligible theoretical visibility from a minimum of approximately 14.5 km away. The Proposed Development is unlikely to have an effect on landscape character.
Upland Glens LCT (D&G 10) - Shinnel unit	The ZTV shows negligible theoretical visibility from a minimum of approximately 11.5 km away. The Proposed Development is unlikely to have an effect on landscape character.
Upland River Valley LCT (East Ayrshire 10) – Bellow/Glenmuir unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of just under 16 km away. The Proposed Development will be seen in conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Afton, Hare Hill and Pencloe Forest, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may

LCT/Unit	Comment
	have some effect on landscape character but this will not be significant.
Upland River Valley LCT (East Ayrshire 10) – Doon unit	The Proposed Development lies a minimum of approximately 11 km from this LCT, and the ZTV shows very intermittent and limited theoretical visibility from a minimum of 13 km away. The Proposed Development will be seen in direct conjunction with (and further away than) a number of other wind farms including Benbrack Variation, Enoch Hill and WSIII), ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character but this will not be significant.
Upland River Valley LCT (East Ayrshire 10) – Nith unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of approximately 10 km away. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Afton and Pencloe Forest, ensuring that it will not constitute a new influence on landscape character. The Proposed Development may have some effect on landscape character, but this will not be significant.
Upper Dale (Valley) LCT (D&G 9) - Upper Glenkens unit	The turbines in the Proposed Development lie a minimum of approximately 8 km from this unit, and the ZTV shows very intermittent and limited theoretical visibility. This is partly of blades only and the majority of visibility is gained from more distant parts of the LCT. Viewpoint 10 lies within this LCT, and indicates that the Proposed Development will be seen in conjunction with Windy Rig wind farm. Elsewhere it will be seen with Benbrack Variation, South Kyle, and WSII and III. The Proposed Development site entrance, upgraded access track, gatehouse and a laydown and storage area will be located within this unit. However, this influence will be limited as existing, upgraded, infrastructure will be used. Moreover, tracks and site entrances are a familiar feature in this LCT due to wind farm and forestry operations. The Proposed Development may have some effect on landscape character, but this will not be significant.
Upper Dale (Valley) LCT (D&G 9) - Upper Nithsdale unit	The ZTV shows very intermittent and limited theoretical visibility from a minimum of approximately 15 km away. The Proposed Development will be seen in direct conjunction with (and from a greater distance than) a number of operational and consented wind farms, including Afton, Hare Hill, Pencloe Forest and Sandy Knowe, ensuring that it will not constitute a new influence on landscape character. The Proposed Development is unlikely to have a discernible effect on landscape character.

6.6.14 This table indicates that the following LCTs/units have potential to be significantly affected by the Proposed Development, and are assessed in detail subsequently in this chapter:

- Southern Uplands LCT (D&G 19) – Carsphairn unit;
- Southern Uplands with Forest LCT (D&G 19a) – Carsphairn unit;
- Southern Uplands with Forestry LCT (East Ayrshire 20c);
- East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – Benty Cowan Hill unit;
- East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – Hare Hill unit;
- East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – west Afton unit;
- Narrow Wooded River Valleys LCT (D&G 4) – Ken unit;
- Southern Uplands with Forest LCT (D&G 19a) – Ken unit; and
- Upland Glen LCT (East Ayrshire14).

Landscape Planning Designations

6.6.15 The site itself is not covered by any known international, national or regional landscape planning designations. Various designations are, however, found elsewhere in the study area. These have been considered in the assessment and are shown on Figures 6.4a (45 km radius) and 6.4b (20 km radius) and in conjunction with the blade tip ZTV on Figure 6.11a (45 km radius) and 6.11b (20 km radius).

6.6.16 There are three ways in which landscape designations are relevant to the LVIA.

- The presence of a designation can give an indication of a recognised value that may increase the sensitivity of a landscape character receptor, viewpoint or visual receptor, and may therefore affect the significance of the effect on that receptor.
- The presence of a relevant designation can lead to the selection of a representative viewpoint within the designated area, as the viewpoint will provide a representative outlook from that area.
- Designated areas may be included as landscape character receptors so that the effects of the Proposed Development on these features of the landscape that have been accorded particular value can be specifically assessed.

National Scenic Areas

6.6.17 NSAs are areas of national scenic value. The Town and Country Planning (NSAs) (Scotland) Designation Directions 2010 defines an NSA as an area "*of outstanding scenic value in a national context*."

6.6.18 There are two NSAs partially within the 45 km study area; Fleet Valley NSA and Nith Estuary NSA. These both lie more than 38 km away from the Proposed Development, are shown on the ZTVs to gain very intermittent theoretical visibility and have therefore been scoped out of the assessment in agreement with NatureScot (scoping opinion, 8 December 2021). NSAs are therefore not assessed in any further detail.

Gardens and Designed Landscapes/Non-Inventory Designed Landscapes

6.6.19 Gardens and Designed Landscapes (GDLs) and Non-Inventory Designed Landscapes are referenced in paragraph 133 of SPP (Scottish Government, 2014) as follows:

> *"Planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes and designed landscapes of regional and local importance."*

6.6.20 The closest GDL to the Proposed Development is Craigengillan, which lies a minimum of just under 12 km to the west. The ZTVS show that theoretical visibility of the Proposed Development is gained from a minimum of approximately 12.8 km away and is restricted to the western and south-western part of the GDL. Visibility is limited, intermittent, and partly blade only. Viewpoint 11 (Auchenroy Hill) lies within Craigengillan, illustrating the highest type of visibility that will be gained from the GDL, and this view shows that the Proposed Development will be seen in conjunction with a number of baseline wind farms, including Pencloe Forest, South Kyle, Windy Rig, and WSII and III. The limited, relatively distant theoretical visibility of the Proposed Development and its association with

other wind farms ensures that there is not potential for a significant effect on the landscape character of Craigengillan GDL. Other GDLs lie over 15 km away from the Proposed Development and are shown on the ZTVs to gain no or very limited theoretical visibility of the Proposed Development.

6.6.21 A number of Non-Inventory Designed Landscapes are identified in Dumfries and Galloway, of which the closest to the Proposed Development is Knockgray, approximately 8.4 km to the south-west. The ZTVs show that there is no theoretical visibility of the Proposed Development from this landscape. Other Non-Inventory Designed Landscapes lie over 15 km away from the Proposed Development and are shown on the ZTVs to gain no or very limited theoretical visibility of the Proposed Development.

6.6.22 The very limited and relatively distant theoretical visibility of the Proposed Development from GDLs and Non-Inventory Designed Landscapes and its visibility in conjunction with other wind farms ensures that there is no potential for significant effects to arise, and they are therefore also discounted from any further assessment.

Regional/Local Planning Designations

Regional Scenic Areas (Dumfries and Galloway)

6.6.23 Regional Scenic Areas (RSAs) are covered in DGC LDP (adopted 2019) Policy NE2: Regional Scenic Areas, as follows:

> *"The siting and design of development within a Regional Scenic Area (RSA) should respect the special qualities of the area. Development within, or which affects RSAs, may be supported where the local Council is satisfied that:*
>
> - *the factors taken into account in designating the area would not be significantly adversely affected; or*
> - *there is a specific need for the development at that location."*

6.6.24 There are five RSAs within or partially within the study area, all within the DGC area. The closest of these is the Galloway Hills RSA, which lies approximately 1.9 km to the south of the Proposed Development. The effect of the Proposed Development on this RSA is assessed in full subsequently in this Chapter due to the proximity of the closest part of the RSA to the Proposed Development and the visibility that is gained from some closer areas of the RSA.

6.6.25 The Thornhill Uplands RSA lies approximately 11 km to the east of the Proposed Development and is shown on the ZTVs to gain very intermittent and limited theoretical visibility of the Proposed Development, parts of which are visibility of blades only. The Proposed Development may have some effect on this RSA but this will not be significant due to the limited, intermittent and relatively distant nature of the visibility, and therefore influence, of the Proposed Development on the RSA. The other RSAs all lie over 30 km away and are shown on the ZTV to gain no visibility or very intermittent and/or limited theoretical visibility of the Proposed Development. With the exception of the Galloway Hills RSA, RSAs are therefore discounted from the assessment.

Scenic Areas/Local Landscape Areas (South Ayrshire)

6.6.26 The adopted South Ayrshire LDP (adopted 2014) identifies Scenic Areas (SAs). The SAs lie a minimum of over 15 km away from the Proposed Development and have intermittent/very intermittent visibility as shown on the ZTV. The Proposed Development may have some effect on the South Ayrshire SAs but this will not be significant and they are therefore not assessed in any further detail in this chapter.

6.6.27 South Ayrshire Council is currently in the process of updating its LDP. The emerging LDP identifies a new local scenic designation – Local Landscape Areas (LLAs) – which currently remain as candidate sites as the LDP is not yet adopted, and as a result these carry less weight as a material consideration than the SAs referred to above. The candidate LLAs have been mapped in Figures 6.4a and 6.11a for reference. The boundary of the candidate LLA that lies in closest proximity to the Proposed Development (High Carrick Hills candidate LLA) is similar to that identified for the SLA, and LLAs are therefore also discounted from any further assessment due to distance from the Proposed Development (over 15 km) and intermittent/very intermittent level of visibility.

Sensitive Landscape Areas (East Ayrshire)

6.6.28 East Ayrshire Sensitive Landscape Areas (SLA) are covered in East Ayrshire LDP (adopted 2017) Policy ENV 7: Wild Land and Sensitive Landscape Areas, as follows:

> *"The Council will give priority and prime consideration to the protection and enhancement of the landscape in its consideration of development proposals within the Sensitive Landscape Areas identified on the LDP maps.*
>
> *Any development deemed to have unacceptable impacts on wild land and SLAs will not be supported by the Council. All development proposals within these areas will also require to be assessed against policy ENV 8: Protecting and Enhancing the Landscape.*
>
> *Non-statutory guidance on Sensitive Landscape Areas supports policy ENV 7 by providing further detail on which particular qualities make the SLA valuable and important on a local and regional scale."*

6.6.29 East Ayrshire SLAs comprise the LCTs that are considered to be of particular sensitivity, as described in the Background Paper 'Sensitive Landscape Areas'.[9] The SLAs are not individually named and cover broad areas of East Ayrshire. The majority of the SLA areas are considered to be at sufficient distance from the Proposed Development (a minimum of over 9 km) and with sufficiently limited visibility from the closer areas to not undergo a significant effect as a result of the Proposed Development.

6.6.30 There is, however, one area of SLA that lies a minimum of 450 m away from the nearest turbine in the Proposed Development, where it covers the Southern Uplands & Forestry LCT (East Ayrshire 20c) that lies to the north and east of the Proposed Development. The effect of the Proposed Development on this area of SLA is assessed in full subsequently in this Chapter due to the proximity of the closest part of the SLA to the Proposed Development and the visibility that is gained from some parts of the SLA.

Special Landscape Areas (South Lanarkshire)

6.6.31 South Lanarkshire LDP (adopted 2021) identifies the local landscape designation of Special Landscape Areas (SLAs). The closest of these - Leadhills and the Lowther Hills SLA – lies more than 25 km away from the Proposed Development and is shown on the ZTVs to gain very intermittent theoretical visibility. The Proposed Development is unlikely to have a discernible effect on the South Lanarkshire SLAs and they are therefore not assessed in any further detail in this Chapter.

Galloway Forest Dark Sky Park

6.6.32 The Galloway Forest Dark Sky Park is covered in DGC LDP Policy ED11: Dark Skies, which states:

> *"a) Galloway Forest Dark Sky Park - The Council supports the designation of the Galloway Forest Dark Sky Park, and will assess proposals for development on their merits, securing levels of lighting that are appropriate to the nature of the development, contribute to sustainable development, and do not adversely affect the objectives of the Dark Sky Park designation.*

[9] East Ayrshire Council (March 2015) *Local Development Plan Background Paper: Sensitive Landscape Areas*. East Ayrshire Council.

b) Dark Skies - Supplementary guidance provides guidance on the adoption of good lighting principles and practice for Dumfries and Galloway, including those relating particularly to the Galloway Forest Dark Sky Park."

6.6.33 The Dark Sky Park has a core area and a buffer area which are a minimum of approximately 17 km and 10 km away from the Proposed Development respectively. The effects of the Proposed Development on the Dark Sky Park are considered in Section 6.7 of this chapter.

Wild Land Areas

6.6.34 WLAs are shown on NatureScot's 2014 wild land mapping. This mapping is referred to in SPP 2014 and the NPF and is supported by a document titled 'Advice to Government' (June 2014)[10] which includes information about the evolution of the mapping, the consultation process that proposed WLAs were subject to, and advice as to how the mapping is to be used.

6.6.35 SPP 2014 refers to the WLA mapping in paragraphs 200 and 215:

"Wild land character is displayed in some of Scotland's remoter upland, mountain and coastal areas, which are very sensitive to any form of intrusive human activity and have little or no capacity to accept new development. Plans should identify and safeguard the character of areas of wild land as identified on the 2014 SNH map of wild land areas."

"In areas of wild land (see paragraph 200), development may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation."

6.6.36 The status of WLAs is clearly set out in paragraph 8 of NatureScot guidance[11]; "*WLAs have not been identified on scenic grounds and are not a statutory designation."*

6.6.37 The need for a WLA assessment is discussed in Paragraphs 5 and 6 of the NatureScot guidance, which note that:

"This guidance should only be applied to proposals whose nature, siting, scale or design are likely to result in a significant effect on the qualities of a WLA. Given this, assessments are more likely for proposals within a WLA, and are less likely for proposals outwith the WLA…An assessment will only be required where it has been deemed necessary by the competent authority. You are encouraged to discuss the need for an assessment with the competent authority at an early stage."

6.6.38 There is one WLA - WLA 01 Merrick - within the 45 km study area as shown on Figure 6.5 and in conjunction with the blade tip ZTV on Figure 6.12. This WLA lies a minimum of over 18.5 km to the south-west of the Proposed Development and is shown on the ZTVs to gain intermittent and limited theoretical visibility of the Proposed Development.

6.6.39 WLAs have been scoped out of the assessment in agreement with NatureScot (email, 9 February 2022) and are therefore not assessed in any further detail in this Chapter.

Principal Visual Receptors

6.6.40 A number of visual receptors such as settlements and travel routes are considered in the assessment as views from them may be affected by the Proposed Development. It is not possible to consider every potential visual receptor in the study area due to the extent of ground that it covers and the assessment therefore concentrates on the 'principal' visual receptors that may gain visibility of the Proposed Development. Principal visual receptors are shown on Figure 6.6a (45 km radius) and 6.6b (20 km radius), and in conjunction with the blade tip ZTV on Figure 6.13a (45 km radius) and Figure 6.13b (20 km radius).

Settlements

6.6.41 Settlements considered in the assessment are those that lie within a 20 km radius of the site and are identified as settlements in relevant LDPs. Settlements are shown on Figure 6.6b and in relation to the ZTV on Figure 6.13b. This 20 km radius has been ascertained through a preliminary assessment of effects on views, which indicated that significant visual effects are unlikely to arise beyond approximately 12 km from the nearest turbine.

6.6.42 The relatively inaccessible Southern Upland landscape within which the Proposed Development lies is sparsely populated. The closest settlements of New Cumnock and the three linked, linear villages of Leggate, Connel Park and Bankglen that lie to the west of New Cumnock are relatively distant at approximately 8.5 km to the north of the Proposed Development, while approximately 9.5 km to the south-west is the village of Carsphairn. All of these settlements are located in more settled, accessible and low-lying landscape types, as are the majority of settlements in the 20 km study area, including Cumnock, Dalmellington, Kirkconnel/Kelloholm, Moniaive, Sanquhar, and St. John's Town of Dalry. Settlements are generally clustered in the lower landscapes that cover northern and western parts of the study area, contrasting with the remote and elevated eastern and south-eastern areas.

6.6.43 Table 6.4 includes the preliminary assessment of the settlements that lie within the 20 km radius study area and indicates which of them are considered to have potential to undergo a significant effect as a result of the Proposed Development (including cumulative effects), as well as those that do not require further detailed assessment. The settlements that do have potential to undergo a significant effect, or significant cumulative effect, as a result of the Proposed Development are assessed in full subsequently in this chapter.

Table 6.4: Preliminary assessment of settlements within the 20 km study area

Settlement	Comment
Settlements included in detailed assessment due to visibility of the Proposed Development	
Leggate, Connel Park and Bankglen	The ZTVs show intermittent theoretical visibility from these linked, linear rural villages that lie to the west of New Cumnock, a minimum of approximately 8.5 km from the Proposed Development.
New Cumnock	The ZTVs show intermittent theoretical visibility from New Cumnock, a minimum of approximately 8.5 km from the Proposed Development (see Viewpoint 5).
Settlements not included in detailed assessment: no visibility or limited/distant visibility of the Proposed Development	
Auchinleck	The ZTVs show theoretical visibility from Auchinleck, a minimum of approximately 18.5 km from the Proposed Development. Screening will be provided by buildings within the settlement, and the Proposed Development will be seen in direct relation to Pencloe Forest and adjacent to Windy Hill wind farms. The Proposed Development may have some effect on views but this will not be significant.
Bellsbank	The ZTV shows no visibility of the Proposed Development.
Burnside	The ZTV shows no visibility of the Proposed Development.
Burnton	The ZTV shows no visibility of the Proposed Development.
Carsphairn	The ZTV shows no visibility of the Proposed Development.

[10] NatureScot (2014) *Core Areas of Wild Land 2013 Map Scottish Natural Heritage's Advice to Government 16th June 2014* [online] Available from https://www.nature.scot/sites/default/files/2018-02/CAWL%202013%20map%20-%20Advice%20to%20Government%20-%20Revised%20Final%20-%2017%20June%202014%20.pdf [Accessed 8 February 2022]

[11] NatureScot (2020) *Assessing Impacts on Wild Land Areas Technical Guidance*. NatureScot.

Settlement	Comment
Craigens	The ZTV shows negligible blade only visibility of the Proposed Development from a minimum of 14.5 km away. The Proposed Development is unlikely to have a discernible effect on views.
Cronberry	The ZTVs show very limited and intermittent theoretical visibility, partly blade only, from over 18 km from the Proposed Development. The Proposed Development may have some effect on views but this will not be significant.
Cumnock	The ZTVs show intermittent theoretical visibility from Cumnock, a minimum of approximately 14.5 km from the Proposed Development. Screening will be provided by buildings within the settlement, and the Proposed Development will be seen in direct relation to (and further away than) Pencloe Forest wind farm (see Viewpoint 9). The Proposed Development may have some effect on views but this will not be significant.
Dalmellington	The ZTV shows no visibility of the Proposed Development.
Hayhill	The ZTV shows no visibility of the Proposed Development.
Kirkconnel/Kelloholm	The ZTV shows no visibility of the Proposed Development.
Logan and Lugar	The ZTVs show intermittent and limited theoretical visibility, partly blade only, from Logan and Lugar, a minimum of approximately 16.5 km from the Proposed Development. Screening will be provided by buildings within the settlement, and the Proposed Development will be seen in direct relation to (and further away than) Pencloe Forest wind farm. The Proposed Development may have some effect on views but this will not be significant.
Moniaive	The ZTV shows no visibility of the Proposed Development.
St. John's Town of Dalry	The ZTVs show very intermittent and limited theoretical visibility, partly blade only, from Dalry, a minimum of just under 20 km from the Proposed Development. Screening will be provided by buildings within the settlement. The Proposed Development is unlikely to have a discernible effect on views.
Sinclairston	The ZTV shows no visibility of the Proposed Development.
Ochiltree	The ZTVs show very intermittent and limited theoretical visibility, partly blade only, from Ochiltree, a minimum of just under 20 km from the Proposed Development. Screening will be provided by buildings within the settlement. The Proposed Development is unlikely to have a discernible effect on views.
Patna	The ZTVs show very intermittent and limited theoretical visibility, partly blade only, from the western edge of Patna, a minimum of just under 19 km from the Proposed Development. The Proposed Development is unlikely to have a discernible effect on views.
Polnessan	The ZTV shows no visibility of the Proposed Development.
Rankinston	The ZTV shows no visibility of the Proposed Development.
Sanquhar	The ZTVs show negligible theoretical visibility, blade only, from a minimum of just under 19 km from the Proposed Development. The Proposed Development is unlikely to have a discernible effect on views.
Skares	The ZTV shows no visibility of the Proposed Development.
Waterside	The ZTVs show very intermittent and limited theoretical visibility, partly blade only, from Waterside, a minimum of approximately 16.5 km from the Proposed Development. Where it is theoretically visible, the Proposed Development will be seen in direct relation to (and further away than) South Kyle wind farm. The Proposed Development is unlikely to have a discernible effect on views.

6.6.44 Table 6.4 indicates that the majority of settlements will not have potential to undergo a significant effect as a result of the Proposed Development and are therefore discounted from the assessment. Effects on New Cumnock and the three linked villages of Leggate, Connel Park and Bankglen are, however, assessed subsequently in this Section due to visibility of the Proposed Development and potential cumulative effects.

Routes

6.6.45 Routes considered in the assessment include roads, walking routes, railways, and cycle routes that lie within the 45 km study area (as shown on Figures 6.6a (45 km radius) and 6.6b (20 km radius) and in relation to the ZTV on Figure 6.13a (45 km radius) and 6.13b (20 km radius). The 45 km radius is included due the potential for sequential and sequential cumulative effects to arise on views from routes.

6.6.46 Routes included as principal visual receptors in the assessment are determined by four criteria:

- the extent to which the route traverses the study area or extends across a notable part of it;
- the proximity of the route to the Proposed Development;
- the importance of the route in terms of recognition, traffic volume and usage; and
- the potential for the Proposed Development to contribute to cumulative effects along the route.

6.6.47 Table 6.5 describes the routes that are considered as principal visual receptors due to various combinations of the criteria listed above, in relation to the ZTVs of the Proposed Development.

Table 6.5: Preliminary assessment of routes within the 45 km study area

Route	Comment
Routes included in detailed assessment due to visibility of the Proposed Development	
A713	This road runs to the south and west of the Proposed Development. The ZTVs show very intermittent and limited theoretical visibility of the turbines from a minimum of approximately 8.5 km away. There are two very short stretches of theoretical visibility from within 10 km of the Proposed Development, both of which would see up to two blades only. If it is visible, the Proposed Development would be seen in the context of Benbrack Variation, South Kyle and WSIII wind farms. Visibility from beyond 10 km away remains very intermittent and limited, with Viewpoint 10 showing the highest type of visibility. The turbines in the Proposed Development will therefore have very limited visibility from this route and, while the classification of the A713 as part of the Galloway Tourist Route heightens its sensitivity, visibility of the turbines will not lead to a significant effect on views from the route. However, some site infrastructure will be located adjacent to the road and it is therefore included in the assessment.
Southern Upland Way	The ZTVs show intermittent theoretical visibility of the Proposed Development from the Southern Upland Way (SUW) at a minimum of approximately 6.8 km away. The effects on views from this route are assessed in full subsequently in this Chapter due to the sensitivity of the route and the level of theoretical visibility of the Proposed Development

Route	Comment
Routes not included in detailed assessment: no visibility or limited/distant visibility of the Proposed Development	
A70	The A70 passes to the north of the Proposed Development, with the ZTVs showing the theoretical visibility gained from a minimum of approximately 16.5 km away, at New Cumnock. Where the Proposed Development is visible, it will be seen by perpendicular to the direction of travel and in direct association with a number of other wind farms including Enoch Hill, Pencloe Forest and South Kyle (see Viewpoint 15). The Proposed Development may have some effect on views from the A70 but this will not be significant.
A76	This road runs to the north and east of the Proposed Development. The ZTVs show intermittent and often limited theoretical visibility from a minimum of just under 10 km away, in New Cumnock. Where the Proposed Development is visible, it will be seen by moving viewers and in direct association with a number of other wind farms including Afton, Enoch Hill, Pencloe Forest and South Kyle (see Viewpoints 5, 9 and 20). The A76 passes through a number of built-up areas, where visibility will be filtered and screened by buildings. While the classification of part of the A76 as the South West Coastal 300 route heightens its sensitivity, these factors ensure that the effect of the Proposed Development on views from the route will not be significant. N.B. Viewpoint 5 is located on the A76 in New Cumnock and is assessed to have a significant effect in the current baseline scenario. While this one specific location is assessed to have a significant effect, the limited, intermittent and often distant visibility ensures that the effect on views from the route as a whole does not have potential to be significant.
A77	The ZTVs show intermittent theoretical visibility from the A77 at a minimum of just under 30 km away. The Proposed Development is unlikely to have a discernible effect on views from the A77 due to the distance involved, screening by built-up areas and vegetation, and the baseline wind farm context in which the Proposed Development will be seen.
A762	The northmost point of the A762 is just north of St John's Town of Dalry, approximately 20 km south of the Proposed Development. The ZTVs show intermittent theoretical visibility. Where the Proposed Development is visible, it will be seen in direct association with Afton and Windy Rig wind farms (see Viewpoint 17). The Proposed Development may have some effect on views from the A70 but this will not be significant.
B729	The B729 runs between Holywood and Carsphairn and is shown on the ZTVs to gain intermittent and limited theoretical visibility of the Proposed Development over a stretch of several kilometres between Carroch and the B7000 junction from a minimum of approximately 9.7 km away. Forestry provides further screening of views and where the Proposed Development is visible, it will be seen in direct association with Windy Rig wind farm (see Viewpoint 6). The Proposed Development may have some effect on views from the B729 but this will not be significant.
B741	The B741 runs between New Cumnock and Girvan, passing a minimum of approximately 7.2 km to the north-west of the Proposed Development. The ZTVs show a stretch of theoretical visibility approximately 3.2 km long to the west of New Cumnock, where the road passes through the linked villages of Leggate, Connel Park and Bankglen. This visibility is gained from a minimum of approximately 7.7 km away, is partly blade only, and the Proposed Development is seen perpendicular to the road. Buildings along of much of this part of the road screen and filter views towards the Proposed Development, and where the Proposed Development is visible, it will be seen in brief, perpendicular glimpses in association with Afton and Pencloe Forest wind farms. The Proposed Development may have some effect on views from the B741 but this will not be significant.
River Ayr Way	The River Ayr Way long distance walking route crosses the north of the study area. The ZTVs show very intermittent theoretical visibility from a minimum of 22 km away, and the Proposed Development is unlikely to have a discernible effect on views from this route.
National Cycle Routes	National Cycle Routes (NCR) 7 and 74 run across the south-east/south-west and north-east of the study area respectively. The ZTVs show very limited and very intermittent theoretical visibility from a minimum of 27 km away. The Proposed Development is unlikely to have a discernible effect on views from these routes.
Glasgow South Western railway	The Glasgow South Western railway runs from Glasgow to Kilmarnock, and then to either Carlisle via Dumfries, or Stranraer via Ayr. The ZTVs show intermittent theoretical visibility from a minimum of approximately 10.5 km away, at New Cumnock. This railway passes through a number of built-up areas, where visibility will be filtered and screened by buildings. Where the Proposed Development is visible, it will be seen by moving viewers and in direct association with a number of other wind farms including Afton, Enoch Hill, Pencloe Forest and South Kyle. The Proposed Development may have some effect on views from this railway line but this will not be significant.
Prestwick to Mauchline line	The ZTVs show theoretical visibility from a minimum of approximately 27 km away. The Proposed Development is unlikely to have a discernible effect on views from this railway due to the distance involved, screening by built-up areas and vegetation, and the baseline wind farm context in which the Proposed Development will be seen.

Core Paths

6.6.48 The assessment considers core paths that are shown on local authority mapping within 20 km of the nearest turbine in the Proposed Development. These paths are shown on Figure 6.6b, and in conjunction with the ZTV on Figure 6.13b. The effects on views from the paths are not assessed individually, but broad conclusions can be drawn from the viewpoint assessment as to the level of visibility and effect that the Proposed Development will have.

6.6.49 In addition to core paths, there are a number of other paths in the study area, including Rights of Way (RoW), permissive paths and informal routes. In accordance with the Land Reform (Scotland) Act 2003, all parts of the Scottish countryside are accessible to all (subject to specific exclusions set out in the Act and as long as users behave responsibly) under statutory access rights. As access to the countryside is not restricted to specific routes, the consideration of all path routes is not relevant to the LVIA, and the assessment focusses on those key recreational routes that are nationally recognised as long-distance routes or identified on Core Paths Plans. Paths other than core paths and national long-distance walking routes are therefore not considered in the LVIA.

Viewpoints

6.6.50 The assessment of landscape and visual effects is informed by a series of 20 viewpoints which are selected to represent visibility from LCTs, landscape planning designations and principal visual receptors around the study area. These include points of specific importance such as recognised viewpoints, designated landscapes, settlements, important routes and attractions. A variety of LCTs and points from different directions and distances have also been represented. The viewpoints were identified through the examination of LVIAs that have been carried out for nearby wind farms, site visits and a desk study of potential locations and receptors.

6.6.51 A list of the suggested viewpoints was included in the scoping report, and this list was subsequently agreed with NatureScot (email 9 February 2022). DGC has not provided comment on the viewpoints that were included in the scoping report and it is therefore assumed that they are content with the suggested viewpoint list. Viewpoints suggested by New Cumnock Community Council are included in the viewpoint list.

6.6.52 The viewpoint assessment is used to inform and illustrate the assessment of effects on landscape character as well as the assessment of effects on views and principal visual receptors. The viewpoints used in the assessment are described in Table 6.6, which also includes a preliminary assessment to identify which viewpoints have potential to undergo significant effects. These potential significant effects are assessed subsequently in this Chapter.

6.6.53 The viewpoint locations are shown in conjunction with the blade tip ZTV on Figures 6.7a (A3 size, 45 km radius), 6.7b (A3 size, 20 km radius), 6.7c (A1 size, 45 km radius) and 6.7d (A0 size, 20 km radius) and the hub height ZTV on Figures 6.8a (A3 size, 45 km radius), 6.8b (A3 size, 20 km radius), 6.8c (A1 size, 45 km radius) and 6.8d (A0 size, 20 km radius).

Table 6.6: Viewpoints

Viewpoint Name	Grid ref/ approx. distance to nearest turbine	Comments	Included in detailed assessment ?
1. Cairnsmore of Carsphairn	259469/597998 4.01 km	Walking destination on the edge of Galloway Hills RSA. The Proposed Development will be seen at close proximity.	Yes
2. Blackcraig Hill	264736/606453 4.86 km	Walking destination within East Ayrshire SLA, identified as a 'landmark hill' in EALWCS. The Proposed Development will be seen at close proximity from this elevated location.	Yes
3. Water of Ken	266004/598605 5.08 km	Viewpoint on minor road within the Narrow Wooded River Valleys LCT to the east of the Proposed Development. Visibility is limited but at close proximity and on an enclosing skyline.	Yes
4. Benbrack	268044/597060 7.64 km	Walking destination on the SUW and a core path, location of a 'Striding Arch'. The Proposed Development will be seen at close/mid range from this elevated location.	Yes
5. New Cumnock	261921/614165 10.33 km	Viewpoint on the A76 road/rail bridge in New Cumnock, included to represent visibility from the settlement of New Cumnock and the A76. Visibility of the Proposed Development on the skyline of enclosing hills.	Yes
6. B729 Carroch Bridge to Guttery Glen	265643/591838 10.46 km	Visibility from roads/easily accessible locations to the south-east of the Proposed Development is limited, and this slightly elevated road provides a relatively rare viewpoint.	Yes
7. Minor road near Auchincross	257205/614234 10.80 km	Accessible viewpoint at an elevated location on a minor road, looking southwards towards the site across the River Nith. Visibility of the Proposed Development on the skyline of enclosing hills.	Yes
8. Loch Doon	248098/598733 12.64 km	Viewpoint located on a core path at the visitor destination of Loch Doon, within East Ayrshire SLA and Galloway Forest Park.	Yes
9. A76 at Cumnock	258202/618067 14.31 km	Viewpoint included to represent views gained by road-users on the A76. Mid-range visibility of the Proposed Development.	Yes
10.A713 Carsfad Loch	260350/586111 15.38 km	Viewpoint on the A713 (Galloway Tourist Route), within the Galloway Hills RSA. Visibility is very limited, with four hubs and one blade theoretically visible; forestry will limit visibility to one hub and three blade tips. The Proposed Development will be seen in conjunction with Windy Rig, which lies closer to the viewpoint. The majority of viewers will be travelling along the road	No: the effect will be not significant due to the limited and distant visibility in conjunction with Windy Rig, and the moving nature of most viewers.

Viewpoint Name	Grid ref/ approx. distance to nearest turbine	Comments	Included in detailed assessment ?
		and will gain only a fleeting glimpse.	
11. Auchenroy Hill	244549/605598 16.01 km	Hilltop viewpoint accessed by a core path, within East Ayrshire SLA and Craigengillan GDL. Identified as a 'key landmark hill' in EALWCS. Mid-range view of the Proposed Development.	Yes
12. Forest Drive, Carrick Lane/ Loch Doon	246581/593960 15.89 km	Viewpoint on the Carrick Forest Drive, core path and visitor destination within the East Ayrshire SLA.	Yes
13. Minor road at Guffock Hill	274826/614708 17.90 km	Accessible viewpoint at an elevated location on a minor road, looking south-westwards towards the site across the upper Nithsdale unit of Upper Dale LCT.	Yes
14. Glenmuir Water	267373/621168 18.56 km	View gained by walkers within the East Ayrshire SLA. This is not on a core path or otherwise recognised walking destination. The Proposed Development is seen from some distance away within a cluster of operational, under construction and consented development, including Afton, Hare Hill, Pencloe Forest, Sanquhar, South Kyle and WSII and III, many of which lie closer to the viewpoint, thus mitigating scale comparisons.	No: the effect will be not significant due to the distant visibility in conjunction with other wind energy development.
15. A70 between Cumnock/ Prestwick	246848/619860 20.95 km	Viewpoint on the A70 to the north-west of the site. Visibility is limited, with turbines seen as hubs or blades and no full towers visible. The Proposed Development is in a cluster of operational, under construction and consented development, including Afton, Enoch Hill, Over Hill, Pencloe Forest, and South Kyle, all of which lie closer to the viewpoint. Viewers will be travelling along the road and will gain a fleeting and angled glimpse.	No: the effect will be not significant due to the limited/ distant visibility in conjunction with baseline development, and the moving, angled nature of views.
16. Meikle Millyea	251845/582885 20.84 km	Hilltop viewpoint within the Galloway Hills RSA. Long-range view of the Proposed Development.	Yes
17. A762 north of New Galloway	262804/579147 22.34 km	Viewpoint on the A762 to the south of the site, within the Galloway Hills RSA. Visibility is limited, with turbines seen as hubs or blades and no full towers visible. The Proposed Development is in a cluster of operational, under construction and consented development, including Afton and Windy Rig, with Benbrack Variation and South Kyle slightly further to the west. Viewers will be travelling along the road and will gain a brief and angled view.	No: the effect will be not significant due to the limited/ distant visibility in conjunction with baseline development, and the moving, angled nature of views.
18. Minor road near Shalloch	239010/594455 22.59 km	Viewpoint on minor road (not a recognised viewpoint or walking/cycling route) within the Dark Sky Park core and South Ayrshire SA. The Proposed Development is seen at long range within a cluster of operational, under construction and consented development, including Afton, Benbrack Variation, Enoch Hill, Hare Hill, Pencloe Forest, Sanquhar, South Kyle and WSII and III, many of which lie closer to the viewpoint, thus mitigating scale comparisons. Viewers will be travelling along the road.	No: the effect will be not significant due to the distant visibility in conjunction with other wind energy development, and the moving nature of viewers.
19. Merrick	242760/585551 24.01 km	Viewpoint at walking destination, accessed by a core path and within the Merrick WLA, Dark Sky Park core, Galloway Hills RSA, and Galloway Forest Park. The Proposed Development is seen at	No: the effect will be not significant due to the distant visibility in

Viewpoint Name	Grid ref/ approx. distance to nearest turbine	Comments	Included in detailed assessment ?
		long range within a cluster of operational, under construction and consented development, including Afton, Benbrack Variation, Cornharrow, Enoch Hill, Hare Hill, Lorg, Over Hill, Pencloe Forest, South Kyle, Wether Hill, Whiteside Hill, and WSII and III. many of which lie closer to the viewpoint, thus mitigating scale comparisons.	conjunction with other wind energy development.
20.Mauchline	250053/626862 25.18 km	Viewpoint that represents views gained from the A76 and potentially a similar outlook will be gained by some residents of the settlement of Mauchline. The Proposed Development will introduce larger scale turbines into a specific part of the view that is not directly affected by large turbines, but will be seen in the context of operational, under construction and consented development including Afton, Benbrack Variation, Enoch Hill, Over Hill, Pencloe Forest, South Kyle, Windy Rig and Windy Standard II and III. In the comparative baseline scenario, in clear conditions, the removal of WSI will be beneficial in simplifying and reducing clustering in the visible wind energy development. Distance mitigates the influence of the Proposed Development, as does the moving nature of road-users who gain this view.	No: the effect will be not significant due to the distant visibility in conjunction with extensive baseline development and, for many viewers, the moving nature of the view.

Cumulative Wind Farm Developments

6.6.54 Cumulative effects are defined in guidance (NatureScot, 2021)[12] as the "*combined effect of a set of developments*" and may arise where a landscape receptor, visual receptor or view is affected by more than one wind farm (or other relevant development). This occurs where the study areas for two or more wind farms overlap so that both are experienced at proximity where they may have a greater incremental effect, or where wind farms may combine to have a sequential effect, irrespective of any overlap in visibility.

Wind Farm Sites Included in the Cumulative Assessment

6.6.55 In accordance with best practice guidance (NatureScot, 2021), the cumulative assessment initially covers a radius of 60 km from the Proposed Development, and includes wind farms that are operational, consented, and planning or Section 36 applications. Scoping stage wind farms are not generally included unless they are of notable relevance, or if their application date is anticipated to be prior to or around the same time as the application for the Proposed Development. In this case, no scoping sites are considered to be relevant for inclusion in the cumulative assessment.

6.6.56 The cumulative situation changes frequently as applications are made, refused or withdrawn, and the layouts of submitted application wind farms are changed, and it is therefore necessary to decide on a cut-off date when the sites and layouts to be included are fixed. The 25 February 2022 has been used as a cut-off for this cumulative assessment, and any changes in the cumulative situation after this date are not incorporated in the assessment.

6.6.57 Wind farm sites that lie within a 60 km radius of the Proposed Development are shown on Figure 6.14a. Before the cumulative assessment is carried out, it is necessary to ascertain which of these sites will be relevant to the cumulative assessment. A wind farm is considered to be relevant if the addition of the Proposed Development to this and other wind farms could result in a significant cumulative effect on a landscape character receptor, view or visual receptor.

6.6.58 Guidance (NatureScot, 2021) suggests that the study area for detailed cumulative assessment will generally extend to a "*35 km radius from the outer boundary of proposal but may be extended due to the nature of likely cumulative effects identified above. The study area may need to be wider for larger turbines*".

6.6.59 However, as the Proposed Development lies within an extensive cluster of wind energy development, this cumulative assessment has taken a slightly different approach. The wind farms included in the cumulative assessment have been individually identified as being of relevance, and include all operational, under construction, consented, and application wind farms that lie within the same cluster as the Proposed Development, as shown on Figure 6.14c and listed in Table 6.7 below. Wind farms that lie outwith this cluster are not considered to be of relevance in the cumulative assessment as they will not result in any change to the cumulative effect arising from the Proposed Development. This list has been agreed with NatureScot (email 8 March 2022) and was also issued to DGC for comment No response was received from DGC.

6.6.60 WSI is included in Table 6.7 below for information regarding turbine dimensions and numbers, and is not included as a development in the detailed cumulative assessment.

[12] NATURESCOT (2021). *Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments*

Table 6.7: Wind farms included in the cumulative assessment

Wind Farm	Status	Approx. Distance from the Proposed Development	Description
Afton	Operational	1.3 km	25 turbines 100/120 m tip height
Benbrack Variation	Consented	6.2 km	18 turbines 132/149.9 m tip height
Cornharrow	Consented	9.3 km	8 turbines 149.9 m tip height
Cornharrow Variation	Application	9.3 km	7 turbines 180 m tip height
Dersalloch	Operational	17.3 km	23 turbines 115/125 m tip height
Enoch Hill Variation	Consented	4.2 km	16 turbines 149.9 m tip height
Euchanhead	Application	4.4 km	21 turbines 230 m tip height
Greenburn	Application	10.6 km	16 turbines 149.9 m tip height
Hare Hill and Extension	Operational	7 km	55 turbines 91/81/70/62.5 m tip height
Lorg	Consented	6.2 km	9 turbines 149.9 m tip height
North Kyle (ZTV combined with Over Hill)	Consented	10 km	54 turbines 149.9 m tip height
Over Hill (ZTV combined with North Kyle)	Consented	11.3 km	10 turbines 149.9 m tip height
Pencloe Forest Resubmission	Consented	1.4 km	21 turbines 149.9 m tip height
Sandy Knowe	Under Construction	10.1 km	24 turbines 125 m tip height
Sanquhar (ZTV combined with Whiteside Hill)	Operational	8.9 km	9 turbines 126.5 m tip height
Sanquhar II	Application	3.2 km	50 turbines 149/200 m tip height
Sanquhar Six Community	Consented	6.4 km	6 turbines 130 m tip height
Shepherds' Rig	Application	5.9 km	17 turbines 149.9 m tip height
South Kyle	Under Construction	2.8 km	50 turbines 149.9 m tip height
Wether Hill	Operational	10.5 km	14 turbines 91 m tip height
Whiteside Hill (ZTV combined with Sanquhar)	Operational	9.7 km	10 turbines 121.2m tip height
Windy Rig	Operational	1 km	12 turbines 125 m tip height
WSI	Operational	n/a	36 turbines 53.5 m tip height
WSII	Operational	700 m	30 turbines 100-119.5 m tip height
WSIII	Consented	1.5 km	20 turbines 125/177.5 m tip height

6.6.61 Cumulative ZTVs that show the visibility of each of the relevant cumulative sites, or group of sites, along with the visibility of the Proposed Development are shown in Figures 6.15a to 6.15w. These show the extent of visibility of each wind farm in conjunction with the Proposed Development along with information on LCTs. Figure 6.15x shows a cumulative ZTV of the Proposed Development with all operational and under construction wind farms, and Figure 6.15y shows a cumulative ZTV of the Proposed Development with all operational, under construction and consented wind farms.

6.6.62 Cumulative sites that lie up to 45 km away from the Proposed Development are shown in the wirelines for each of the representative viewpoints in Figures 6.16 to 6.35. The wirelines are produced in increments of 90º and cover a variable width of the view, ranging from 90º to 360º, dependent on the horizontal field of view that has been used for each viewpoint. In some instances, wind farms appear in the wirelines although they are beyond their own study area radius (i.e. the radius that is appropriate for the turbine tip height of the wind farm in accordance with NatureScot guidance (2021).

6.7 ASSESSMENT OF POTENTIAL EFFECTS

6.7.1 This section describes the effects that the Proposed Development will have on the relevant landscape and visual receptors and viewpoints as identified in the baseline section. The significant effects are summarised below and described in full in the following sub-sections; Effects on Physical Elements, Effects on Landscape Character; Effects on Views; and Visual Assessment of Visible Aviation Lighting. Where relevant, the assessment of cumulative effects is incorporated into these assessments.

6.7.2 The layout design of the Proposed Development is a vital part of the EIA process and is the stage where the biggest contribution can be made to mitigate potential landscape and visual effects, creating a wind farm which is appropriate for the existing landscape character and visual features of an area. Landscape and visual objectives have been considered in the wind farm design from an early stage, along with environmental constraints, technical and economic factors, and landscape and visual mitigation measures have therefore been incorporated through

the iterative design process in order to prevent or reduce potential adverse landscape and visual effects. Embedded landscape and visual mitigation measures are summarised below.

- The location of the Proposed Development in an area that is characterised by extensive baseline (operational and consented) wind energy development (including, in the comparative baseline scenario, the WSI turbines on the Proposed Development Site itself) is beneficial as it ensures that the Proposed Development will almost always be seen in conjunction with other wind energy development. Moreover, the Proposed Development has been designed to minimise visibility from areas that are not affected by baseline wind energy development, as can be seen in the cumulative ZTVs with nearby wind farms.
- The location of the Proposed Development within Southern Uplands and Southern Uplands with Forest LCTs is beneficial in that these are large-scale, upland LCTs that are acknowledged to have capacity to accommodate wind energy development (as evidenced by operational and consented development). Moreover, the Proposed Development is located within an extensive area of Southern Uplands LCTs, ensuring that turbines will not encroach, or be perceived as encroaching, into smaller-scale, more complex lowland LCTs, where scale comparisons could arise.
- The location of the turbines within the Southern Uplands also ensures that visibility from principal visual receptors (e.g. A76, A713, settlements) is limited due to landform screening by the large-scale hill landform.
- The Proposed Development has been designed to avoid the appearance of prominent turbines on ridgelines and high points of the site, and this also helps to minimise visibility from visual receptors.
- In the comparative baseline scenario, the use of taller turbines of the size proposed allows the replacement of 36 operational WSI turbines with eight turbines, with a resultant notable reduction in the number of turbines on the site.
- The repowering nature of the development ensures that existing infrastructure is extensively used, minimising the need for new infrastructure. This applies in both the comparative baseline scenario and restored baseline scenario as parts of the existing infrastructure (e.g. access tracks) will be retained in place irrespective of the restoration of the WSI site.

6.7.3 These embedded mitigation measures ensure that significant effects on the landscape and visual resource have been avoided and reduced in extent to a considerable degree, and as a result the significant effects are highly localised in nature. The residual significant effects are described in full in this section and summarised below. The assessment has indicated potential for the significant effects to arise on:

- the landscape character of the Proposed Development Area itself and surrounding LCTs (all of which are Southern Uplands landscape types) up to a maximum of approximately 6.5 km away, of which some effects will become not significant when consented wind farms are also taken into consideration;
- views from local hilltops at Benbrack (Viewpoint 4), Blackcraig Hill (Viewpoint 2), and Cairnsmore of Carsphairn (Viewpoint 1);
- very intermittent views (including night-time views) from the Water of Ken valley (Viewpoint 3);
- intermittent views from the settlements of Leggate, Connel Park and Bankglen, and New Cumnock (Viewpoint 5); however, when the consented wind farm at Pencloe Forest is also taken into consideration, these effects will be not significant;
- intermittent views from the northern slope of the upland basin that encloses the headwaters of the River Nith (Viewpoint 7); however, when the consented wind farm at Pencloe Forest is also taken into consideration, this effect will be not significant; and
- intermittent views from a stretch of the SUW between Stroanpatrick and Polskeoch and intermittent views from core paths that gain clear and open visibility of the Proposed Development and lie within a maximum of approximately 11 km of the Proposed Development (of which some effects will become not significant when consented wind farms are also taken into consideration).

6.7.4 There will be no significant effects on the roads included in the assessment (including all A-class roads that pass through the study area); national or regional designations such as NSAs, GDLs, RSAs or SLAs; WLAs; and the Galloway Dark Sky Park. There will also be no significant cumulative effects.

Effects on Physical Elements

6.7.5 The first category of effects covered in the assessment is effects on physical elements, which are direct effects on the fabric of the site, such as changes to ground cover. Physical effects are found only on the site, where existing landscape elements may be removed or altered by the Proposed Development. This category of effects is made up of landscape elements, and in this case there are two elements involved: rough grassland/moorland and coniferous forestry. It should be noted that these landscape elements are assessed with reference to their contribution to the landscape resource rather than in ecological terms.

6.7.6 Effects in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together. This is because the variables that are considered in the assessment will not notably differ between the two scenarios due to the retention of some infrastructure in the restored baseline scenario and the requirement for similar new infrastructure in both scenarios.

Rough Grassland/Moorland Ground Cover

6.7.7 The construction of turbine bases, hardstandings, access tracks (including widening of existing access tracks) and other infrastructure will require the removal of areas of rough grassland and moorland ground cover.

Baseline and Sensitivity

6.7.8 Rough grassland and moorland is the predominant landcover across the site, and is typical throughout much of the uplands of Dumfries and Galloway and the adjoining East Ayrshire. The value of this landscape element is medium; it is a relatively widespread landscape element that is not rare or specifically recognised for its value but it is a highly characteristic element of the Southern Uplands and contributes notably to the open, upland character of this landscape. There is also value in the contrast that rough grassland and moorland have with the more improved grassland that is found in lower-lying landscapes (e.g. the Upland Glen LCT of Glen Afton) in the study area as this variation in ground cover is one of the indicators of the difference between the upland and lower-lying character types.

6.7.9 The sensitivity of the landscape element is determined through a combination of the value attached to it, as described above, and its susceptibility to the Proposed Development. The susceptibility to change of this landscape element is low due to the potential for reinstatement and restoration of the ground cover following construction and at the end of the lifetime of the Proposed Development.

6.7.10 The combination of the low susceptibility to change of the landscape element and the medium value of the landscape element results in a **medium-low** sensitivity for rough grassland and moorland ground cover.

Magnitude of Change

6.7.11 The area of rough grassland/moorland to be removed or disturbed in the construction and operation of the Proposed Development is limited in relation to the total area found on the site and beyond. The reuse and upgrading of existing access tracks ensures that the areas of removal and disturbance are less than that required for a ‘new’ wind energy development.

6.7.12 The magnitude of change on rough grassland/moorland is considered to be **medium-low** due to the limited extent of the removal and disturbance.

Significance of the Effect

6.7.13 The effect of the Proposed Development on rough grassland/moorland will be minor and **not significant**. This is due to a combination of the factors that lead to the medium-low sensitivity of the landscape element and the medium-low magnitude of change upon it. This change will be long-term and reversible.

Coniferous Forestry

6.7.14 The construction of the Proposed Development will require the removal of approximately 18.5 hectares (ha) of commercial coniferous forestry.

Baseline and Sensitivity

6.7.15 Coniferous forestry is a widespread landcover across the part of the Proposed Development Area that is covered by the Southern Uplands with Forest LCT. The value of this landscape element is medium; it is a widespread and commercially-grown landscape element that is not rare or specifically recognised for its value but it is a characteristic element of this area of the Southern Uplands, as evidenced in the naming of the LCT.

6.7.16 The sensitivity of the landscape element is determined through a combination of the value attached to it, as described above, and its susceptibility to the Proposed Development. The susceptibility to change of this landscape element is medium due to the compensatory planting that will be implemented.

6.7.17 The combination of the medium susceptibility to change of the landscape element and the medium value of the landscape element results in a **medium** sensitivity for coniferous forestry.

Magnitude of Change

6.7.18 A total area of approximately 18.5 ha of forestry will be removed for the construction and operation of the Proposed Development. This constitutes approximately 0.5 % of the forestry within the Forestry Study Area (FSA) and the magnitude of change will be **low** as the construction and operation of the Proposed Development will result in the removal of a very small part of this landscape element.

Significance of the Effect

6.7.19 The effect of the Proposed Development on coniferous forestry will be minor and **not significant**. This is due to a combination of the factors that lead to the medium sensitivity of the landscape element and the low magnitude of change upon it.

Summary of Physical Effects

6.7.20 The Proposed Development will affect two landscape elements; rough grassland/moorland ground cover, and coniferous forestry. The effect on both of these landscape elements will be not significant in both the comparative baseline scenario and the restored baseline scenario.

Effects on Landscape Character

6.7.21 Landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape character arise either through the introduction of new elements or removal of existing elements that physically alter this pattern of elements, or through visibility of the Proposed Development, which may alter the way in which the pattern of elements is perceived. For example, if the Proposed Development is visible from an area of Upland Glen LCA, the perceived experience of this area may be altered as visibility of the turbines introduces different contextual characteristics despite its physical location in another, separate area.

6.7.22 It should be noted that levels of magnitude of change on landscape character receptors are generally found to be lower than the magnitude of change on viewpoints that lie within these LCTs. This means that if a viewpoint is assessed to undergo a medium-high magnitude of change it does not necessarily follow that the LCT within which it lies would also undergo a medium-high magnitude of change, but may undergo a lower magnitude of change instead.

6.7.23 This is because the effects on viewpoints are assessed within the context of a specific outlook of the Proposed Development and are usually specifically selected to gain a direct view over the site. The landscape character of a receptor is not necessarily determined so specifically by the outlook over the Proposed Development and there are many other considerations, both visual and perceptual, that may combine to give an area its landscape character. This means that the Proposed Development may have a lesser degree of influence on landscape character than on a specific view. This is particularly true of areas that lie slightly further away from the site. In the close vicinity of the site, up to several kilometres away, the magnitude of change on viewpoints and landscape character is likely to be similar, but beyond this, the magnitude of change on landscape character is found to often diminish more rapidly as the influence of the turbines is subsumed in the many other influences on landscape character.

6.7.24 Viewpoints are referred to in this assessment as they give a useful indication of the appearance of the Proposed Development from specific locations within the various landscape receptors, but, as described above, the level of magnitude of change may vary between the viewpoint assessment and the landscape character assessment.

6.7.25 The detailed methodology for the assessment of effects on landscape character is described in Appendix 6.1. It is important to note that the baseline presence and influence of WSI wind farm on the Proposed Development Area and its wider landscape setting will moderate the potential effects of the Proposed Development. This is because the Proposed Development will not introduce a new or unfamiliar feature into the landscape, but instead will replace an existing, similar, development, reducing the number of turbines from 36 to eight, albeit with turbines of larger dimensions. As a result, the magnitude of change on surrounding landscape receptors is likely to be reduced from the effect that would arise on a 'new' wind farm site.

6.7.26 It should also be noted that the LCTs that are included in the detailed assessment lie within Dumfries and Galloway and East Ayrshire, and are therefore named/described in accordance with the DGWLCS and EALWCS capacity studies. These capacity studies suggest a 'sensitivity' rating to development of various turbine sizes for each LCT. However, this LVIA does not use the sensitivity ratings as included in the capacity studies but rather assesses sensitivity according to the methodology described in GLVIA3 (although there are a number of similarities between the criteria considered in ascertaining the sensitivity of each receptor). Moreover, this LVIA specifically assesses the sensitivity of each relevant LCT/unit to the Proposed Development rather than to generic wind energy development of various typologies within the LCT/units, as is the case with the capacity studies. The sensitivity of each receptor as assessed in the LVIA may therefore differ from that assessed in the capacity studies.

6.7.27 The assessment of effects on landscape character covers two groups of receptors, LCTs and units, and landscape planning designations. Section 6.6 of this Chapter identifies the landscape character receptors which have the potential to undergo significant effects (including cumulative effects), and the effect on each of these receptors is assessed below.

6.7.28 The LCT units that may be directly affected by the Proposed Development (e.g. the units that are host to elements of the Proposed Development) are assessed first, followed by those that may be indirectly affected by visibility/influence of the Proposed Development, in alphabetical order. These are:

- Southern Uplands LCT (D&G 19) – Carsphairn unit (direct effects);
- Southern Uplands with Forest LCT (D&G 19a) – Carsphairn unit (direct effects);
- East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – Benty Cowan Hill unit (indirect effects);
- East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – Hare Hill unit (indirect effects);
- East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – west Afton unit (indirect effects);
- Narrow Wooded River Valleys LCT (D&G 4) – Ken unit (indirect effects);
- Southern Uplands with Forest LCT (D&G 19a) – Ken unit (indirect effects);
- Southern Uplands with Forestry LCT (East Ayrshire 20c) (indirect effects);
- Upland Glen LCT (East Ayrshire 14) (indirect effects);

- Dumfries and Galloway: Galloway Hills RSA (indirect effects); and
- East Ayrshire: SLA (indirect effects).

6.7.29 The other LCTs and units and designated areas within the study area were found through the initial filtering process to not have the potential to undergo a significant effect and have therefore not been assessed in any further detail.

6.7.30 This assessment considers both the effects of the Proposed Development itself, in relation to the baseline characteristics of landscape receptors, and the cumulative effects that may arise from the addition of the Proposed Development to other wind farms.

6.7.31 The assessment of the effects of the Proposed Development itself is carried out in relation to the baseline characteristics of landscape receptors, which does, where relevant, include consideration of operational and under construction baseline wind energy development. For some receptors, the consideration of consented wind farms will alter the effect of the Proposed Development; where this is the case, a separate assessment is carried out using a scenario that includes consented wind farms.

6.7.32 The cumulative assessment considers various possible scenarios of other wind farm development as described in the methodology section of this Chapter, including the current baseline (operational and under construction wind farms) and predicted baseline (operational, under construction and consented wind farms) as described above, and also considering relevant application stage wind farms. The application stage wind farms are considered on a case-by-case basis for each landscape receptor as there is no certainty as to whether or not they will form features in the landscape in the future.

Southern Uplands LCT (D&G 19) – Carsphairn unit

6.7.33 There are ten areas of Southern Uplands LCT in Dumfries and Galloway, of which one - Carsphairn – has potential to be significantly affected by the Proposed Development as the southernmost three turbines and associated infrastructure lie within this unit. In its appraisal, DGWLCS groups this unit together with seven further areas of Southern Uplands LCT that are considered to not have potential to undergo a significant effect as a result of the Proposed Development.

Baseline and Sensitivity

6.7.34 LVIA Viewpoint 1 (Cairnsmore of Carsphairn) lies within the Carsphairn unit of Southern Uplands.

6.7.35 DGWLCS includes the following descriptions of these eight units of Southern Uplands (page 340-342). References that are specific to the seven areas that do not have potential to be significantly affected by the Proposed Development have not been included herein:

- *"These uplands generally range between 400 and 500 m height…These uplands have an open character although a reduced scale in narrow valleys.*
- *These hills are generally smooth with rounded summits although distinctive craggy and shapely peaks and deeply folded slopes, corries and dramatically incised valleys also occur, for example Cairnsmore of Carsphairn…*
- *Land cover is simple, largely comprising grass moorland giving a bare smooth appearance where the landform is apparent…There is little woodland or commercial forestry apart from native trees and shrubs within narrow valleys. …most of this character type is unsettled…*
- *…These open uplands are important in the wider Dumfries and Galloway context where extensive forestry covers much of the upland area and can reduce scenic interest.*
- *…Elsewhere, a general absence of built development within the majority of this upland area gives a strong sense of naturalness. A degree of seclusion can also be experienced in parts of these uplands although roads prevent a true sense of remoteness. Extensive forestry within adjacent upland areas within Dumfries and Galloway increases the value of these open, less modified hills.*
- *RSA designations cover…all of the Moffat, Tarras and Carsphairn units and part of the Nithsdale and West and North Langholm units…The relationship of the..."dramatic sculptural forms of Cairnsmore of Carsphairn and associated peaks"...with the Glenkens are noted within the citation for the Galloway Hills RSA."*

6.7.36 While the description provided in DGWLCS, as quoted above, is generally applicable to the Carsphairn unit of Southern Uplands LCT in terms of underlying landform and inherent landscape characteristics, there are several notable aspects of the Carsphairn unit that do not accord with the description.

6.7.37 Firstly, the publication date of DGWLCS means that while it is acknowledged that "*the operational Windy Standard wind farm and its consented extension extend into the Carsphairn unit"*, the subsequent consenting and construction of Windy Rig wind farm within the unit has not been taken into consideration in the description of its landscape character. This wind farm, along with the close-proximity external influence of the operational Afton and consented WSIII wind farms, ensures that the Carsphairn unit has/will have considerably greater wind farm influence than was the case when DGWLCS was published.

6.7.38 As well as altering the landscape character of the unit, this means that the specific characteristic…"*a general absence of built development within the majority of this upland area gives a strong sense of naturalness. A degree of seclusion can also be experienced in parts of these uplands although roads prevent a true sense of remoteness. Extensive forestry within adjacent upland areas within Dumfries and Galloway increases the value of these open, less modified hills*" is no longer applicable to the whole of the Carsphairn unit. The wind energy development within and in close proximity to the unit ensures that there is no longer "*a general absence of built development*" and as result, the "*strong sense of naturalness"* and "*degree of seclusion"* are no longer clearly apparent. Moreover, the hills are no longer "*open, less modified"* and this reduces the value of the contrast that Carsphairn unit previously had with adjacent forested upland areas.

6.7.39 The second important point is that DGWLCS states that "*RSA designations cover…all of the Moffat, Tarras and Carsphairn units*". This is not in fact the case; the northern part of the Carsphairn unit (including the area covered by the Proposed Development Area, some of the operational WSI and II turbines and the majority of Windy Rig wind farm) is not within the RSA. This reduces the recognised 'value' of the part of the unit that lies outwith the RSA.

6.7.40 Notwithstanding both of these points, it is notable that the northern part of the unit has considerably more wind energy development than the southern and central parts, which retain their inherent Southern Uplands character to a greater degree (and are covered by the RSA). This is apparent at Viewpoint 1, which shows notably less development to the south and west than the north and east.

6.7.41 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the *comparative baseline* scenario (e.g. assuming the presence of WSI as part of the baseline) and *restored baseline* scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The Southern Uplands – Carsphairn unit has a medium value; part of it (although not the Proposed Development Area) is covered by the Galloway Hills RSA, and it has scenic quality in its distinctive Southern Uplands landscape, particularly in southern and central areas where wind farms are less immediately apparent as an influence. The value is, however, moderated by wind farm development within and adjacent to the unit (including, in the comparative baseline scenario, the baseline presence of WSI turbines on the Proposed Development Area itself), which has

both extensively modified the landscape itself from its innate character and also reduced its contrast with adjacent modified LCTs.

6.7.42 The susceptibility of the Southern Uplands – Carsphairn unit to the effects of the Proposed Development is medium. This is a large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not lead to scale comparisons between the landscape and the turbines. The susceptibility is also moderated by the direct influence of wind energy within the northern part of the receptor in particular (including, in the comparative baseline scenario, the presence of WSI turbines on the Proposed Development Area itself) as well as close-proximity external influence. These wind farms establish this type of development as part of the baseline character, ensuring that the Proposed Development will not add a new type of influence to the character of the northern part of the LCA. However, the southern and central parts of the unit retain more of the innate unforested Southern Uplands landscape character, being less defined by wind energy influence, and the medium susceptibility arises from this.

6.7.43 The combination of the medium value and medium susceptibility to change of the Southern Uplands – Carsphairn unit results in a **medium** sensitivity in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.44 Three of the Proposed Development turbines and associated infrastructure (including upgraded existing access tracks and hardstandings) are located within the northern periphery of this LCT, and a small part of the LCT will therefore undergo direct physical effects from the construction and operation of the turbines and infrastructure. Within this area, the Proposed Development will have a direct effect on the components and pattern of the landscape as well as perceived effects that arise through visibility of the Proposed Development. Out with the Proposed Development Area itself, effects on the LCT will be perceived, arising only through visibility of the Proposed Development, rather than direct physical effects.

6.7.45 The key consideration in the assessment of magnitude of change is the degree to which the Proposed Development will alter the character of the LCT from its baseline, bearing in mind that this LCT is directly affected by Windy Rig and Windy Standard II (and, in the comparative baseline scenario, by WSI), and perceptually affected by visibility of these sites as well as Afton wind farm.

6.7.46 The ZTVs indicate that visibility of the Proposed Development from this LCT falls into two areas. The first of these covers the northern part of the LCT and extends up to approximately 5.5 km away from the nearest turbine in the Proposed Development. The part of the Proposed Development that lies in this LCT is within this area, as is Windy Rig wind farm. Viewpoint 1 is also within this area, and illustrates the highest type of visibility and influence that the Proposed Development will have. This area is shown on the ZTVs to have intermittent and often limited theoretical visibility of the Proposed Development, resulting in an intermittent influence on landscape character. One of the areas of higher visibility is gained from the Windy Rig site, where the additional wind farm influence arising from the Proposed Development will be limited by the physical presence and immediate influence of Windy Rig turbines.

6.7.47 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed separately due to the different considerations in each scenario.

6.7.48 In the comparative baseline scenario, the maximum magnitude of change on this northern area of the LCT will be **medium**, which will arise on the site itself and on the parts of the northern area that gain a high level of visibility and influence of the Proposed Development. This arises from the following considerations.

- On the site area itself, the physical landscape patterns that contribute to landscape character will be altered by the construction and operation of the new turbines, larger than those of the operational WSI turbines, and upgraded infrastructure.
- Where they are visible, the Proposed Development turbines will have a higher level of visibility than the baseline WSI turbines due to their increased dimensions, resulting in a more apparent influence on landscape character.
- The scale of the turbines may lead to scale comparisons with landform features, landscape patterns, and other turbines within the LCT (Windy Rig and WSII), and this can increase the influence of the Proposed Development.

6.7.49 The factors that restrict the magnitude of change to a maximum **medium** level in the comparative baseline scenario are as follows.

- On the Proposed Development Area itself, the new turbines and upgraded infrastructure will have a similar footprint to that of WSI and in this respect the physical landscape patterns of the LCT will be relatively unchanged.
- This northern part of the LCT is strongly characterised by current baseline wind farm influence, both internal (including on the Proposed Development Area itself) and external. This ensures that the Proposed Development will not introduce a new, unfamiliar influence on landscape character, but will integrate with the baseline character. This is particularly the case in the vicinity of the Windy Rig and WSI and II turbines, where baseline wind farm influence is high.
- The turbines in the Proposed Development will replace the greater number of turbines in WSI, notably simplifying landscape patterns and removing the extensive clustering and overlapping of turbines that currently increases the influence of WSI. The overall image of current baseline development within and adjacent to the LCT will be simplified by the reduction in turbine numbers and by the removal of the smallest turbines in the group, as these currently contrast with the majority of other operational turbines in terms of scale and layout.
- The Proposed Development turbines are theoretically visible from broadly the same parts of the LCT as WSI (as shown on Figure 6.15u) and their influence will not be extended to extensive parts of the receptor that are not currently affected by WSI.
- This receptor has large-scale, generally simple landform, ensuring that scale comparisons with the Proposed Development are unlikely to arise.

6.7.50 In the restored baseline scenario, the maximum magnitude of change on the northern area of the LCT, including the site itself and the parts that gain a high level of visibility and influence of the Proposed Development, will be **medium-high**. This increase in magnitude of change from that assessed above for the comparative baseline scenario is due to the introduction of the Proposed Development turbines onto the restored site, which is not characterised by the presence of the operational WSI turbines. This will lead to a greater contrast with the baseline situation in terms of both physical landscape patterns, which will be notably altered by the addition of the Proposed Development turbines to the site, and the perceived wind farm influence, which will be increased by visibility of the Proposed Development turbines.

6.7.51 The magnitude of change on the parts of this northern area that do not gain clear, open and high visibility and influence of the Proposed Development will be a maximum of **medium-low** in both the comparative baseline and restored baseline scenarios due to the reduced visibility and influence of the Proposed Development.

6.7.52 The second area of the LCT that is shown on the ZTVs to gain visibility of the Proposed Development is a small area in the south-eastern corner, a minimum of approximately 6.6 km away from the nearest turbine. This area has limited theoretical visibility of the Proposed Development, much of it blade only, and almost all in conjunction with Windy Rig. WSI has negligible theoretical visibility from this area, and the maximum magnitude of change here will be **medium-low** in both the comparative baseline and restored baseline scenarios.

Significance of the Effect

6.7.53 The effect of the Proposed Development on the landscape character of the majority of Southern Uplands LCT (D&G 19) – Carsphairn unit will be **not significant** in both the comparative baseline and restored baseline

scenarios. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium sensitivity. There will, however, be an intermittent moderate or major/moderate and **significant** effect on the landscape character of the northern part of the receptor, including part of the Proposed Development Area itself and up to approximately 5.5 km away. This arises from a combination of the factors that lead to the maximum medium (in the comparative baseline scenario) or medium-high (in the restored baseline scenario) magnitude of change and the medium sensitivity of the receptor. The combination of sensitivity and the medium magnitude of change in the comparative baseline scenario can result in an effect that is significant or not significant; in this case the effect is considered to be significant as the receptor will be directly affected by the Proposed Development.

Cumulative Effects

6.7.54 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is also influence of relevant application stage sites, including Euchanhead, Shepherds' Rig and Sanquhar II.

6.7.55 In scenarios of current baseline wind farms and predicted baseline wind farms, the addition of the Proposed Development will have some cumulative effect on landscape character. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility and influence of the Proposed Development in comparison to that of WSI.

6.7.56 In relation to the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks), the introduction of the Proposed Development turbines onto the site and the larger scale of these turbines in relation to other nearby wind energy development will lead to some cumulative effects.

6.7.57 However, in both the comparative and restored baseline scenarios, this cumulative effect arising from the Proposed Development is moderated by the level of development that already influences the receptor, internally and externally, which means that wind energy development is already a prevailing characteristic of the baseline landscape. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a landscape in which wind farms are a key characteristic.

6.7.58 In the comparative baseline scenario, the cumulative effect is also moderated by the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI and the resultant increased level of integration that the Proposed Development will have with the current baseline and predicted baseline wind farms.

6.7.59 When various scenarios of application stage wind farms are considered in addition to the current baseline and predicted baseline sites, the addition of the Proposed Development will not result in any notable further cumulative effect. This is because of the high level of baseline development (and, in the comparative baseline scenario, the location of the Proposed Development on a site that is currently part of this development), which ensures that even when application stage wind farms are also considered, the addition of the Proposed Development would not materially increase the apparent level of wind farm influence. Moreover, consideration of the application stage site at Sanquhar II could reduce the effect arising from the addition of the Proposed Development, as the turbines in this wind farm are 200 m to blade tip, and their presence would provide a precedent for the Proposed Development turbines in terms of scale.

6.7.60 In all scenarios, the Proposed Development will therefore have a **not significant** cumulative effect. Operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Southern Uplands with Forest LCT (D&G 19a) – Carsphairn unit

6.7.61 There are four units of Southern Uplands with Forest LCT in Dumfries and Galloway, of which two – Carsphairn and Ken - have potential to be significantly affected by the Proposed Development. The northern five turbines of the Proposed Development and their associated infrastructure lie within the Carsphairn unit, while the Ken unit lies several kilometres further to the east. The Carsphairn and Ken units have been assessed separately as the Proposed Development will affect each of them differently.

6.7.62 In its appraisal, DGWLCS groups all four areas of Southern Uplands with Forest LCT together.

Baseline and Sensitivity

6.7.63 Southern Uplands with Forest – Carsphairn is effectively a southwards continuation of Southern Uplands with Forestry LCT (East Ayrshire 20c), which abuts this landscape to the north. The two LCTs together form a very extensive area of forested uplands.

6.7.64 DGWLCS includes the following descriptions of Southern Uplands with Forest (page 344-354). References to the areas that do not have potential to be significantly affected by the Proposed Development have not been included herein.

- *"The Southern Uplands with Forests generally forms an expansive undulating upland plateau generally between 350- 500 m high although a few individual peaks exceed this height. The Eskdalemuir, Ken and Carsphairn units abut similar large-scale upland areas (some of these extending into neighbouring authorities) increasing the extensiveness of the landscape…Scale is significantly reduced within the narrow valleys which cut deeply into these uplands with the Ken unit particularly being intercut by a number of smaller valleys.*
- *The hills are generally smooth with rounded summits. There are few pronounced peaks…The hills of Benbrack, Cairn and Blackcraig within the Ken unit are also distinctive in their steep-sided slopes, defined summits and tight arc formed at the head of the upper Dalwhat valley. Extensive forestry generally masks the underlying landform although steeply incised burns, occasional crags and more complex interlocking landform are evident in some areas.*
- *Extensive commercial forestry covers much of this landscape and this generally has a poor relationship with landform. There is more open ground on hill tops and within steep-sided valleys in the Ken unit…There are few landmark features apart from the well-defined hills described above with Stroanfreggan and Round Craigs notable exceptions on the west of the Ken unit…*
- *These uplands tend to be set back from more sensitive small scale valleys and glens although some hills on the edge of the Southern Uplands with Forests are visible from…the Narrow Wooded River Valleys (4) of the Ken and Eskdale where they form a backdrop and contrast to these sparsely settled farmed valleys…*
- *While the interior of these landscapes can feel remote due to the distance from settlement and public roads, the presence of extensive commercially managed forestry and wind farms in some units precludes a strong sense of naturalness. Wind farm development is a key feature within the West Langholm, Carsphairn and Ken units of this landscape character type."*

6.7.65 The description provided in DGWLCS, as quoted above, is generally applicable to the Carsphairn unit of Southern Uplands with Forest LCT (other than those specific references to the Ken unit, which are relevant to the assessment of effects on the Ken unit, as described in the following section of this chapter).

6.7.66 The extensive influence of wind energy development is clearly acknowledged, and the description notes that "*the operational wind farm of Windy Standard and its consented extension are sited in the Carsphairn unit*", and that "*a number of wind farms sited in adjoining landscape character types also have/will have a strong influence on all units of the Southern Uplands with Forest (19a). These include the Hare Hill and Afton wind farms which are sited close to the Ken and Carsphairn units in the west…".*

6.7.67 This list has now been added to by the under construction South Kyle wind farm and the consented Benbrack Variation and WSIII wind farms, which lie within or partly within the Carsphairn unit of Southern Uplands with Forest LCT. At approximately 1 km away to the east, Windy Rig wind farm also adds to the external wind farm influence. As a result, the baseline character of much of this receptor is/will be heavily influenced by wind energy development. The south-western part of the unit, where the uplands drop down into Upper Glenkens, shows the least influence of wind energy development.

6.7.68 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The Southern Uplands with Forest – Carsphairn unit has a medium-low value; a small part of the western end of the unit (not the Proposed Development Area) is covered by the Galloway Hills RSA, and there is some scenic quality in the Southern Uplands landscape. The value is, however, moderated by forestry and wind farm development across extensive parts of the unit (including, in the comparative baseline scenario, the presence of WSI turbines on the Proposed Development Area itself), which has extensively modified the landscape itself from its innate character. Wind farms in surrounding areas also exert a strong influence.

6.7.69 The susceptibility of the Southern Uplands with Forest – Carsphairn unit to the Proposed Development is medium-low. This is an extensive, large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not lead to scale comparisons between the landscape and the turbines. The susceptibility is also moderated by the extensive direct influence of wind energy throughout much of the receptor as well as close-proximity external influence. These wind farms establish this type of development as part of the baseline character, ensuring that the Proposed Development will not add a new type of influence to the character of the LCA.

6.7.70 The combination of the medium-low value and medium-low susceptibility to change of the Southern Uplands with Forest – Carsphairn unit results in a **medium-low** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.71 Five of the turbines and associated infrastructure (including upgraded existing access tracks, construction compound, hardstandings, temporary car parking and borrow pit search areas) are located within this LCT, and a part of the LCT will therefore undergo direct physical effects from the construction and operation of the turbines and infrastructure. Within this area, the Proposed Development will have a direct effect on the components and pattern of the landscape as well as perceived effects that arise through visibility of the Proposed Development. Outwith the Proposed Development Area itself, effects on the LCT will be perceived, arising only through visibility of the Proposed Development, rather than direct physical effects.

6.7.72 The key consideration in the assessment of magnitude of change is the degree to which the Proposed Development will alter the character of the LCT from its baseline, bearing in mind that this LCT is/will be directly affected by Benbrack Variation, South Kyle and Windy Standard II and III (and, in the comparative baseline scenario, the presence of WSI), and affected by visibility of these sites as well as the external influence of Afton, Pencloe Forest and Windy Rig wind farms.

6.7.73 The ZTVs indicate that theoretical visibility of the Proposed Development from this LCT is intermittent across the LCT, with areas of higher visibility found on high ground and areas that slope towards the Proposed Development and no visibility in some enclosed areas and slopes that face away from the turbines. The majority of visibility is gained from within approximately 8 km away, with just one small area beyond this in the western corner of the unit, a minimum of approximately 10 km away.

6.7.74 It is notable that the areas of higher visibility of the Proposed Development are gained from the elevated ridges and slopes that are the sites of operational, under construction and consented wind farms within this unit, including Benbrack Variation, South Kyle and WSII and III. The additional wind farm influence arising on the areas from the Proposed Development will be limited by the physical presence and immediate influence of other turbines.

6.7.75 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed separately due to the different considerations in each scenario.

6.7.76 In the comparative baseline scenario, the maximum magnitude of change on this unit will be **medium**, which will arise on the site itself and on the parts of the unit that gain a high level of visibility and influence of the Proposed Development within a maximum of around 5 km of the nearest turbine. This arises from the following considerations.

- On the site area itself, the physical landscape patterns that contribute to landscape character will be altered by the construction and operation of the new turbines, larger than those of the operational WSI turbines, and upgraded infrastructure.
- Where they are visible, the Proposed Development turbines will have a higher level of visibility than the baseline WSI turbines due to their increased dimensions, resulting in a more apparent influence on landscape character.
- The scale of the turbines may lead to scale comparisons with landform features, landscape patterns, and other turbines within the LCT (especially WSII), and this is likely to increase the influence of the Proposed Development.

6.7.77 The factors that restrict the magnitude of change to a maximum **medium** level in the comparative baseline scenario are as follows.

- On the Proposed Development Area itself, the new turbines and upgraded infrastructure will have a similar footprint to that of WSI and in this respect the physical landscape patterns of the LCT will be relatively unchanged.
- This LCT is strongly characterised by operational and under construction wind farm influence, both internal (including on the Proposed Development Area itself) and external. This ensures that the Proposed Development will not introduce a new, unfamiliar influence on landscape character, but will integrate with the baseline character. This is particularly the case in the vicinity of operational and under construction wind farms at South Kyle and WSII, where baseline wind farm influence is high.
- The turbines in the Proposed Development will replace the greater number of turbines in WSI, notably simplifying landscape patterns and removing the extensive clustering and overlapping of turbines that currently increases the influence of WSI. The overall image of current baseline development within and adjacent to the LCT will be simplified by the reduction in turbine numbers and by the removal of the smallest turbines in the group, as these currently contrast with the majority of other operational turbines in terms of scale and layout.
- This receptor has large-scale, generally simple landform, ensuring that scale comparisons with the Proposed Development are unlikely to arise.

- As noted in DGWLCS this landscape is characterised by extensive forestry, which screens visibility from many areas and forestry is therefore a factor that can consistently and extensively preclude visibility from the landscape. There are, however, some unforested areas, with visibility towards the Proposed Development intermittently available. Given the dynamic situation of deforestation and reforestation, the assessment assumes a worst-case scenario of no forestry screening.

6.7.78 In the restored baseline scenario, the maximum magnitude of change on the northern area of the LCT, including the site itself and the parts that gain a high level of visibility and influence of the Proposed Development, will be **medium-high**. This increase in magnitude of change from that assessed above for the comparative baseline scenario is due to the introduction of the Proposed Development turbines onto the restored site, which is not characterised by the presence of the operational WSI turbines. This will lead to a greater contrast with the baseline situation in terms of both physical landscape patterns, which will be notably altered by the addition of the Proposed Development turbines to the site, and the perceived wind farm influence, which will be increased by the introduction of the Proposed Development turbines.

6.7.79 Beyond approximately 5 km away, the magnitude of change will drop to a **medium-low** and then **low** level in both the comparative baseline and restored baseline scenarios as influence from the Proposed Development diminishes with distance and more limited visibility. The influence of other wind farms also increases in the vicinity of other sites, reducing the perceived influence of the Proposed Development. The magnitude of change on the parts of this unit that do not gain clear, open and high visibility and influence of the Proposed Development will be a maximum of **medium-low** due to the reduced visibility and influence of the Proposed Development.

Significance of the Effect

6.7.80 The effect of the Proposed Development on the landscape character of the majority of Southern Uplands with Forest LCT (D&G 19a) – Carsphairn unit will be **not significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium-low sensitivity. There will, however, be an intermittent moderate and **significant** effect on the landscape character of the north-eastern part of the receptor, including part of the Proposed Development Area itself and up to a maximum of approximately 5 km away. This arises from a combination of the factors that lead to the maximum medium (in the comparative baseline scenario) or medium-high (in the restored baseline scenario) magnitude of change and the medium-low sensitivity of the receptor. These combinations of magnitude of change and sensitivity can result in an effect that is significant or not significant; in this case the effect is considered to be significant as the receptor will be directly affected by the Proposed Development.

Cumulative Effects

6.7.81 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is some limited theoretical influence of relevant application stage sites, including Euchanhead, Shepherds' Rig and Sanquhar II.

6.7.82 The cumulative effects on this receptor in both the comparative baseline scenario and restored baseline scenario will be very similar to those assessed for the previous receptor, the Carsphairn unit of Southern Uplands (D&G 19) due to the similarly high level of baseline wind energy influence on the landscape character.

6.7.83 Here too, the cumulative effect will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Southern Uplands with Forest LCT (D&G 19a) – Ken unit

6.7.84 The Ken unit is the second unit of Southern Uplands with Forest LCT that has potential to be significantly affected by the Proposed Development, with the first, the Carsphairn unit, assessed above. The Ken unit lies several kilometres to the east of the Proposed Development, separated from the Carsphairn unit by various Southern Uplands LCTs and the Upland Glen LCT of Afton Glen.

Baseline and Sensitivity

6.7.85 Viewpoint 4 (Benbrack) and Viewpoint 6 (B729 Carroch Bridge to Guttery Glen) lie within the Ken unit of Southern Uplands with Forest.

6.7.86 The relevant DGWLCS descriptions of Southern Uplands with Forest LCT are quoted above in relation to the assessment of effects on the Carsphairn unit.

6.7.87 Southern Uplands with Forest – Ken is an extensive and irregularly-shaped unit, measuring approximately 22 km from north to south, and is surrounded largely by other upland landscape types. As described in DGWLCS, this unit has some features that distinguish it from other units of Southern Uplands with Forest LCT: it is characterised by incised valleys to a greater extent than other areas (including the Narrow Wooded River Valley LCT of the Water of Ken, which extends deeply into the unit from the south); it has several distinctive, steep-sided hill landforms, whereas landform in other units is more uniform; and there is generally less forestry cover in this unit than found elsewhere, with some open, rough grassland slopes.

6.7.88 The influence of wind energy development is clearly acknowledged, and the description notes that "*The operational Wether Hill and the consented Blackhill to Magheuchan Rig* [also known as Sanquhar wind farm] *are located in the Ken unit of this character type. The consented Sandy Knowe wind farm is also partially located in this landscape unit*", and that "*a number of wind farms sited in adjoining landscape character types also have/will have a strong influence on all units of the Southern Uplands with Forest (19a). These include the Hare Hill and Afton wind farms which are sited close to the Ken and Carsphairn units in the west, the Whiteside Hill and Sanquhar wind farms also lying close to the Ken unit* [in fact, part of Sanquhar wind farm lies within the Ken unit]".

6.7.89 This list has now been added to within the unit by the consented Cornharrow, Lorg and Sanquhar Six Community wind farms, and adjacent to the unit by Troston Loch and Glenshimmeroch wind farms.

6.7.90 As a result, the character of this receptor is/will be influenced by wind energy development. This is not, however, as apparent in some parts of the unit as in other areas of Southern Uplands with Forest, including the Carsphairn unit. The more enclosed parts of this landscape, where wind farm influence is less apparent, including the valleys, retain a more natural, unmodified character, particularly where there is less forestry cover or more naturalised forestry. The southern part of the unit has more limited wind farm influence than the north, and natural qualities are greater here.

6.7.91 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The Southern Uplands with Forest – Ken unit has a medium value; a very small part of the eastern edge is covered by the Thornhill Uplands RSA, and there is scenic quality in the Southern Uplands landscape, particularly in the enclosed valleys and interior areas where wind farm influence is more limited. The absence of forestry also adds value in some areas while recreational use of the SUW, which runs through the Southern Uplands with Forest – Ken unit, also contributes to the medium value as this is an aspect of the landscape experience. Forestry and wind farm development do, however, moderate the value of the receptor to a medium level as these have extensively modified the landscape from its innate character.

6.7.92 The susceptibility of the Southern Uplands with Forest – Ken unit to the Proposed Development is medium. This is generally an extensive, large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not lead to scale comparisons between the landscape and the turbines. The susceptibility is also moderated by the direct influence of wind energy within the receptor as well as close-proximity external influence. The medium susceptibility arises from characteristics that distinguish this unit from other areas of Southern Uplands with Forest, including the relatively enclosed and complex nature of the landform in some parts of the unit, the more distinctive hills and landform found in some areas, and the more limited forestry cover in some areas.

6.7.93 The combination of the medium value and medium susceptibility to change of the Southern Uplands with Forest – Ken unit results in a **medium** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.94 The turbines in the Proposed Development lie out with this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.95 The Southern Uplands with Forest – Ken unit gains intermittent theoretical hub height and blade tip visibility of the turbines in the Proposed Development from a minimum of around 2.4 km away up to a maximum of around 13 km away. This visibility is intermittent or very intermittent and is frequently limited to a small number of blades and hubs. It is notable that the areas of higher visibility of the Proposed Development are gained from the elevated ridges and slopes that are the sites of other operational and consented wind farms within this unit, including Cornharrow, Lorg, Sanquhar, Sanquhar Six Community and Wether Hill. The additional wind farm influence arising from the Proposed Development on these areas will therefore be limited by the physical presence and immediate influence of other turbines.

6.7.96 Magnitude of change will vary widely across this unit due to the extensive nature of the LCT, its irregular landform and the variable level of visibility and influence of the Proposed Development.

6.7.97 The part of the unit that lies closest to the Proposed Development, a minimum of approximately 2.4 km away, generally slopes away from the Proposed Development and therefore gains very limited visibility and influence of the turbines. These areas include the western slopes that rise up from the Water of Ken and the eastern slopes of Blackcraig and Blacklorg Hills. The maximum magnitude of change on these areas will be **medium-low** due to the limited and intermittent influence of the Proposed Development and the orientation of landform away from it. This will apply in both the comparative baseline scenario and the restored baseline scenario, as visibility of WSI from these areas is generally very limited due to the orientation of the landform away from the site, which restricts influence of the smaller turbines. The baseline presence of WSI therefore makes little difference to the effect of the Proposed Development.

6.7.98 In the part of the unit that lies within approximately 5 km of the Proposed Development, a higher level of visibility and influence is gained only from the small areas of higher ground around Lorg Hill, Brown Hill and Ewe Hill, where there is an open and elevated aspect towards the Proposed Development from between around 3.5 km and 5 km away. In the comparative baseline scenario, the maximum magnitude of change on these elevated areas will be **medium** due to the level of influence on the receptor, the direct views towards the Proposed Development, and the larger scale of the Proposed Development in relation to other wind farms. This magnitude of change is limited to a medium level by the visibility of the Proposed Development in direct relation to extensive baseline wind energy development, including WSI. In the restored baseline scenario, the maximum magnitude of change on these areas will increase to a medium-high level as the proposed development will provide a new wind farm influence on the setting to the LCT.

6.7.99 Beyond approximately 5 km away, theoretical visibility varies widely from extensive areas of no visibility to higher levels of visibility on several elevated ridges and slopes. These elevated areas are in some cases the sites of other operational wind farms, including Sanquhar and Wether Hill, ensuring that the additional wind farm influence arising from the Proposed Development will be limited by the physical presence and immediate influence of other turbines. The lack of, or limited visibility and influence of the Proposed Development combined with the level of influence of other wind farms ensures that the maximum magnitude of change beyond approximately 5 km away will be **medium-low** in both the comparative baseline scenario and the restored baseline scenario**.**

Significance of the Effect

6.7.100 The effect of the Proposed Development on the landscape character of the majority of Southern Uplands with Forest LCT (D&G 19a) – Ken unit will be **not significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium sensitivity. There will, however, be an intermittent moderate and **significant** effect on the landscape character of the small areas of higher ground around Lorg Hill, Brown Hill and Ewe Hill, between approximately 3.5 km and 5 km away from the Proposed Development. This arises from a combination of the factors that lead to the maximum medium (in the comparative baseline scenario) or medium-high (in the restored baseline scenario) magnitude of change and the medium sensitivity of the receptor. The combination of the medium sensitivity and medium magnitude of change in the comparative baseline scenario can result in an effect that is significant or not significant; in this case the effect is considered to be significant largely due to the appearance of the Proposed Development in the direct setting to the receptor and the visibly larger scale of the Proposed Development in relation to other wind farms.

Cumulative Effects

6.7.101 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is also direct influence of relevant application stage sites at Cornharrow Resubmission, Euchanhead, Sanquhar II and Shepherds' Rig within the receptor.

6.7.102 The cumulative effects on this receptor will be very similar in both the comparative baseline scenario and restored baseline scenario to those assessed for the previous two Southern Uplands receptors, the Carsphairn units of Southern Uplands (D&G 19) and Southern Uplands with Forest (D&G 19a) due to the similarly high level of baseline wind energy influence on the landscape character.

6.7.103 Here too, the cumulative effect will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Southern Uplands with Forestry LCT (East Ayrshire 20c)

6.7.104 This is an irregularly-shaped LCT that extends from Dalmellington in the west to Glen Afton in the east, and lies close to the north and east of the Proposed Development.

6.7.105 Southern Uplands with Forestry (East Ayrshire 20c) is effectively a northwards continuation of the Carsphairn unit of Southern Uplands with Forest LCT (D&G 19a), which abuts this landscape to the south. The two LCTs together form a very extensive area of forested uplands.

Baseline and Sensitivity

6.7.106 EALWCS includes the following relevant descriptions of Southern Uplands with Forestry (pages 114-120):

- *"This landscape comprises part of an extensive upland area where it borders the Southern Uplands and Southern Uplands with Forestry character type both in East Ayrshire and neighbouring Dumfries and Galloway.*

- *These uplands form an expansive undulating plateau generally between 350-500 m high although a few individual peaks exceed this height. Scale is significantly reduced in tightly contained valleys including the narrow pass accommodating the A713. This landscape is very sparsely settled with occasional farms sited at the foot of valleys on the periphery of these uplands.*
- *The hills are generally smooth with rounded summits although some narrow, steep-sided interlocking ridges also occur. There are few pronounced peaks but the open top of Windy Standard (537 m) [this is a different Windy Standard landform from that on which the Windy Standard wind farm is located] stands out in views from the west and south.*
- *Extensive commercial forestry covers much of this landscape and although well-designed it is of limited diversity. Felling coupes and new planting add transitional textural contrasts across this landscape. Small areas of hill pasture fringe lower hill slopes and a few higher hill tops are open.*
- *There is very little settlement within this character type. Operational and consented wind farm development is a key characteristic of this and similar adjoining upland landscapes.*
- *While the interior of these landscapes can feel remote due to the distance from settlement and public roads, the presence of extensive commercially managed forestry and wind farm development in the same character type within neighbouring Dumfries and Galloway precludes any sense of naturalness.*
- *The operational Hare Hill I and II, Afton and WSI and II wind farms are visible from the Upland Basin (15). The operational WSI and II and Dersalloch wind farms and the consented South Kyle and Benbrack Variation wind farms are visible from Loch Doon and the Doon Valley.*

6.7.107 The influence of wind energy development is clearly acknowledged, and the description notes that:

> *"The consented South Kyle wind farm…is located in this landscape character type. The operational Windy Standard wind farm…and its extension…are located within the Southern Uplands with Forestry character type in neighbouring Dumfries and Galloway but lie close to the East Ayrshire boundary. The consented Benbrack Variation wind farm…is also located in the Southern Uplands with Forestry where it extends into Dumfries and Galloway.*
>
> *The operational Dersalloch wind farm…is located in the Foothills with Forest West of the Doon Valley (17b). The operational Afton wind farm…and the operational Hare Hill wind farm…and its extension…are located in the East Ayrshire Southern Uplands (20a)."*

6.7.108 This list has now been added to within or partly within the LCT by the consented Enoch Hill and Pencloe Forest wind farms, while the consented WSIII wind farm is close to the southern boundary of the LCT. South Kyle wind farm is now under construction within the LCT.

6.7.109 As a result, the baseline character of much of this receptor is/will be strongly influenced by wind energy development. This is not, however, found uniformly across the LCT, and the outer slopes on its north-western edges are less developed and less influenced by wind farms than the eastern part, where the majority of internal and external baseline wind farm influence is found. Interestingly, it is the eastern part of the LCT that is designated as East Ayrshire SLA, while the western area is undesignated other than the north-western corner. As well as these north-western outer slopes there are a number of enclosed, incised valleys within the hills where wind farm influence is limited and the landscape has a greater sense of naturalness, although the extensive forestry cover reduces this in many places.

6.7.110 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The East Ayrshire Southern Uplands with Forestry has a medium value; the north-western corner and the eastern part of the LCT are covered by the East Ayrshire SAs, and there is scenic quality in the Southern Uplands landscape, particularly in the enclosed valleys where wind farm influence is more limited. Forestry and wind farm development do, however, moderate the value of the receptor to a medium level as these have extensively modified the landscape from its innate character.

6.7.111 The susceptibility of the Southern Uplands with Forestry to the Proposed Development is medium. This is generally an extensive, large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not generally lead to scale comparisons between the landscape and the turbines. The susceptibility is also moderated by the direct influence of wind energy within the receptor as well as close-proximity external influence. The medium susceptibility arises from the more complex landforms and landscape patterns that are found in some parts of the LCT, including incised valleys, steeply-sloped hills and ridges and, on the outer fringes, more complex landscape patterns of fields and pasture, as the Proposed Development can lead to scale comparison with these smaller-scale features.

6.7.112 The combination of the medium value and medium susceptibility to change of the Southern Uplands with Forestry LCT (East Ayrshire 20c) unit results in a **medium** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.113 The turbines in the Proposed Development lie out with this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.114 The Southern Uplands with Forestry LCT gains intermittent theoretical hub height and blade tip visibility of the turbines in the Proposed Development from a minimum of around 500 m away up to a maximum of around 10 km away. This visibility is intermittent, and where there is visibility it is generally of a relatively high number of hubs and blades. There is no theoretical visibility from the north-western part of the LCT, where landform slopes down towards Dalmellington, the A713 and B741, away from the Proposed Development.

6.7.115 As seen in other upland LCTs, it is notable that higher visibility of the Proposed Development is gained from the elevated ridges and slopes that are the sites of operational and under construction wind farms within this unit, including Afton and South Kyle. The additional wind farm influence arising from the Proposed Development on these areas will be limited by the physical presence and immediate influence of other turbines.

6.7.116 Magnitude of change will vary across this LCT due to the extensive nature of the LCT and the variable level of visibility and influence of the Proposed Development.

6.7.117 The part of the unit that lies closest to the Proposed Development, a minimum of approximately 500 m away, slopes towards the Proposed Development and will gain high visibility and influence of the turbines. These areas include the 'finger' of the LCT that lies to the east of the Proposed Development and the area to the north of the Proposed Development, which forms the southern slopes of Struthers Brae, Milray Hill, Strandlud Hill, and McCowans Knowe. These areas are strongly and directly influenced by Afton and South Kyle wind farms, which lie within this area, with nearby external influence also arising from WSII. future, this area will also be directly

affected by the consented Pencloe Forest. The magnitude of change on these areas will be intermittently **medium** due to the orientation of landform towards the Proposed Development, the scale of the Proposed Development in comparison to other turbines that are seen nearby, and its proximity to the LCT. The magnitude of change is moderated to a medium level by the strong baseline wind farm influence, both within the LCT and in the aspect of the setting in which the Proposed Development will be seen, ensuring that it will not introduce a new external influence. This will apply in both the comparative baseline scenario and the restored baseline scenario due to the high level of influence of other wind energy development on this area, which ensures that the baseline presence of WSI makes little difference to the effect of the Proposed Development.

6.7.118 To the north and east, the maximum medium magnitude of change will extend up to the boundary of this LCT, which lies a maximum of just over 5 km away. To the west, where the LCT extends considerably further, the maximum medium magnitude of change will extend to the ridge formed by Enoch Hill, McCowans Knowe and Stony Knowes Hill, which forms something of a loose division between the open, broad western part of the LCT and the tighter, sometimes more complex eastern part, and also marks an intermittent break in theoretical visibility of the Proposed Development. This break lies between around 4.8 km and 5.2 km away from the Proposed Development.

6.7.119 Beyond the break, there is an area of high theoretical visibility of the Proposed Development from the lower slopes of Windy Standard and Prickeny Hill, gained from just over 5 km away. Here, the magnitude of change will be reduced to a maximum **medium-low** level by the direct influence of South Kyle and by the location of the Proposed Development behind South Kyle and WSII, where its influence will be limited. This too will apply in both the comparative baseline scenario and the restored baseline scenario.

6.7.120 Elsewhere, the parts of the LCT that lie beyond approximately 5 km from the Proposed Development are shown to gain very intermittent and limited visibility, and where it is visible, the Proposed Development will be seen beyond South Kyle. The magnitude of change on these areas will also be a maximum of **medium-low**, with the majority of the western part of the LCT gaining no visibility at all.

As noted in DGWLCS this landscape is characterised by extensive forestry, which screens visibility from many areas. and forestry is therefore a factor that can consistently and extensively preclude visibility from the landscape. There are, however, some unforested areas, with visibility towards the Proposed Development intermittently available. Given the dynamic situation of deforestation and reforestation, the assessment assumes a worst-case scenario of no forestry screening.

Significance of the Effect

6.7.121 The effect of the Proposed Development on the landscape character of the majority of Southern Uplands with Forestry LCT (East Ayrshire 20c) will be **not significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium sensitivity. There will, however, be an intermittent moderate and **significant** effect on the landscape character of the areas that lie in closest proximity to the north and east of the Proposed Development, between approximately 500 m and 5.2 km away from the Proposed Development. This arises from a combination of the factors that lead to the maximum medium magnitude of change and the medium sensitivity of the receptor and will apply in both the comparative baseline and restored baseline scenarios. This combination of magnitude of change and sensitivity can result in an effect that is significant or not significant; in this case the effect is considered to be significant largely due to the orientation of landform towards the Proposed Development and the visibly larger scale of the Proposed Development in relation to other wind farms.

Cumulative Effects

6.7.122 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is also some limited influence of relevant application stage sites at Euchanhead and Sanquhar II.

6.7.123 The cumulative effects on this receptor will be very similar in both the comparative baseline and restored baseline scenarios to those assessed for the previous Southern Uplands receptors, the Carsphairn unit of Southern Uplands (D&G 19) and the Carsphairn and Ken units of Southern Uplands with Forest (D&G 19a) due to the similarly high level of baseline wind energy influence on the landscape character.

6.7.124 Here too, the cumulative effect will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

East Ayrshire Southern Uplands LCT (East Ayrshire 20a) - Benty Cowan Hill unit

6.7.125 There are three units of East Ayrshire Southern Uplands LCT in the study area, all of which have potential to be significantly affected by the Proposed Development. These have been assessed separately as the Proposed Development will affect each of them differently, and have been named as the Benty Cowan Hill unit, the Hare Hill unit and the west Afton unit in this assessment.

6.7.126 The Benty Cowan Hill unit of East Ayrshire Southern Uplands LCT lies immediately to the north of the Southern Uplands with Forestry LCT (East Ayrshire 20c) that is assessed above. It is a relatively small unit, measuring approximately 6 km by 3.5 km, and is bounded to the north by the B741. Benty Cowan Hill is the focal point of the unit, rising to 477 m above ordnance datum (AOD) at the centre of the unit.

Baseline and Sensitivity

6.7.127 EALWCS includes the following specific references to the Benty Cowan Hill unit of East Ayrshire Southern Uplands LCT (page 106-112).

- *This area of the Southern Uplands comprises…lower hills with complex interlocking ridges lying to the west of this glen* [Glen Afton].
- *This landscape forms a relatively narrow band of hills but comprises part of a more extensive upland area where it borders the Southern Uplands and Southern Uplands with Forestry character types lying in East Ayrshire and Dumfries and Galloway.*
- *The hills of the Southern Uplands range between 360-700m in height in this area. These uplands are not settled and are open with very few scale references.*
- *Steep-sided hills contain Glen Afton…The north-eastern slopes of the band of hills lying west of Afton Glen are generally gentler. Although these hills are generally lower to the west they are often complex, forming a series of interlocking ridges deeply cut by water courses.*
- *These uplands have a simple land-cover of grass moorland with occasional patchy heather. An unsettled landscape with no public roads but accommodating operational wind farm development and access tracks.*
- *The presence of operational wind farm development in these uplands and within close proximity in Dumfries and Galloway, together with nearby extensive commercial*

forestry inhibits a strong sense of wildness although the openness of these uplands has some natural qualities."

6.7.128 The influence of wind energy development is clearly acknowledged, and the description notes that:

"The operational Windy Standard wind farm…is located within the same character type but within neighbouring Dumfries and Galloway and lying close to the East Ayrshire boundary. The operational Whiteside Hill and consented Sanquhar wind farms are located within the Nithsdale landscape unit of the Southern Uplands character type within Dumfries and Galloway.

The consented South Kyle and Benbrack Variation wind farms are located in the adjacent Southern Uplands with Forest (20c) in East Ayrshire and Dumfries and Galloway respectively."

6.7.129 At the time of publication of EALWCS there was no baseline wind energy development within the Benty Cowan Hill unit. However, Enoch Hill wind farm, partly within this unit, is now consented and will introduce a high level of direct wind farm influence. Afton wind farm (which is within the west Afton unit of East Ayrshire Southern Uplands) exerts an external influence, as will the consented North Kyle, Over Hill, WSIII and Pencloe Forest. South Kyle wind farm is now under construction.

6.7.130 As a result, the baseline character of this receptor is influenced by internal and external wind energy development. This is not, however, found uniformly across the LCT, and the northern/north-eastern part of the receptor will be less influenced by wind farms than the southern, eastern and north-western parts, where internal and external baseline wind farm influence is concentrated. There are also a number of enclosed, incised valleys within the hills where wind farm influence is limited and the landscape has a greater sense of naturalness.

6.7.131 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The East Ayrshire Southern Uplands – Benty Cowan Hill unit has a medium value; the whole of the unit is covered by the East Ayrshire SLA, and there is scenic quality in the Southern Uplands landscape, particularly to the north and in the enclosed valleys where wind farm influence is more limited. Wind farm development does, however, moderate the value of the receptor to a medium level as this has/will extensively modified the landscape from its innate character.

6.7.132 The susceptibility of the East Ayrshire Southern Uplands – Benty Cowan Hill unit to the Proposed Development is medium. Overall, this is a large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not generally lead to scale comparisons between the landscape and the turbines. The susceptibility is also moderated by the direct influence of wind energy within the receptor as well as close-proximity external influence. The medium susceptibility arises from the more complex landform that is found in the unit, most notably the incised valleys, as the Proposed Development can lead to scale comparison with these smaller-scale features.

6.7.133 The combination of the medium value and medium susceptibility to change of the East Ayrshire Southern Uplands – Benty Cowan Hill unit (East Ayrshire 20a) unit results in a **medium** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.134 The turbines in the Proposed Development lie outwith this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.135 The East Ayrshire Southern Uplands – Benty Cowan Hill unit gains very intermittent theoretical visibility of the Proposed Development from a minimum of around 3.6 km away up to a maximum of around 6.5 km away. This visibility is largely in two broad bands that run south-west/north-east covering the high ground on either side of the Connel Burn, in the eastern part of the unit.

6.7.136 In the comparative baseline scenario, when operational and under construction wind farms are taken into consideration, the addition of the Proposed Development will lead to a **medium** magnitude of change on these areas of visibility due to the orientation of landform towards the Proposed Development, the scale of the Proposed Development in comparison to other turbines that are seen nearby, and its proximity to the LCT. The scale contrast between the Proposed Development and some of the more complex landform in this receptor also contributes to the magnitude of change. The magnitude of change is moderated to a medium level by the strong baseline wind farm influence in the aspect of the setting in which the Proposed Development will be seen, including WSI. In the restored baseline scenario, the maximum magnitude of change on these areas will increase slightly as, in the absence of WSI, the proposed development will provide the influence of a new wind farm on the setting to the LCT. The magnitude of change will, however, remain medium as the context of surrounding wind energy development within which the Proposed Development will be perceived prevents the occurrence of a higher magnitude of change, irrespective of WSI.

6.7.137 When consented sites are also considered, the magnitude of change will drop to a **medium-low** level as the Proposed Development will lie behind Pencloe Forest wind farm, and this will reduce its influence. This will apply in both the comparative baseline scenario and restored baseline scenario,

6.7.138 The influence of the Proposed Development will be very limited out with these bands of visibility, and the maximum magnitude of change elsewhere will be **low**, with the great majority of the unit gaining no visibility at all.

Significance of the Effect

6.7.139 The effect of the Proposed Development on the landscape character of the great majority of East Ayrshire Southern Uplands – Benty Cowan Hill unit (East Ayrshire 20a) will be **not significant**. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium sensitivity. There will, however, be an intermittent moderate and **significant** effect on the landscape character of the bands of high ground that run on either side of the Connel Burn, between 3.6 km and 6.5 km away from the Proposed Development in both the comparative baseline and restored baseline scenarios. The combination of a medium magnitude of change and medium sensitivity can result in an effect that is significant or not significant; in this case the effect is considered to be significant largely due to the orientation of landform towards the Proposed Development and the visibly larger scale of the Proposed Development in relation to other nearby wind farms. This significant effect will become **not significant** when consented wind farms are also taken into consideration due to the influence of Pencloe Forest.

Cumulative Effects

6.7.140 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is also some influence of relevant application stage sites, primarily Greenburn but also Euchanhead and Sanquhar II.

6.7.141 The cumulative effects on this receptor in both the comparative baseline scenario and restored baseline scenario will be very similar to those assessed for the previous Southern Uplands receptors, the Carsphairn unit of Southern Uplands (D&G 19) the Carsphairn and Ken units of Southern Uplands with Forest (D&G 19a) and Southern

Uplands with Forestry (EA 20c) due to the similarly high level of baseline wind energy influence on the landscape character.

6.7.142 Here too, the cumulative effect will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

East Ayrshire Southern Uplands LCT (East Ayrshire 20a) - Hare Hill unit

6.7.143 The Hare Hill unit is the second unit of East Ayrshire Southern Uplands LCT. This area of landscape lies to the east of the Benty Cowan Hill unit and encloses the eastern side of Afton Glen and while it covers a larger area than the Benty Cowan Hill unit, it is relatively narrow in extent, being less than 5 km in width at its widest point. The unit consists of a series of hills that run in a north-south direction, of which the highest is Blackcraig Hill (700 m AOD).

Baseline and Sensitivity

6.7.144 Viewpoint 2 (Blackcraig Hill) lies within the Hare Hill unit of East Ayrshire Southern Uplands.

6.7.145 EALWCS includes the following specific references to the Hare Hill unit of East Ayrshire Southern Uplands LCT (page 106-112).

- *This area of the Southern Uplands comprises higher, more defined 'landmark' hills lying east of Glen Afton.*
- *This landscape forms a relatively narrow band of hills but comprises part of a more extensive upland area where it borders the Southern Uplands and Southern Uplands with Forestry character types lying in East Ayrshire and Dumfries and Galloway.*
- *The hills of the Southern Uplands range between 360-700m in height in this area. These uplands are not settled and are open with very few scale references.*
- *Steep-sided hills contain Glen Afton. These hills are higher on the eastern side of Glen Afton and include Hare Hill and the distinctly rugged Blackcraig Hill.*
- *These uplands have a simple land-cover of grass moorland with occasional patchy heather. An unsettled landscape with no public roads but accommodating operational wind farm development and access tracks.*
- *The presence of operational wind farm development in these uplands and within close proximity in Dumfries and Galloway, together with nearby extensive commercial forestry inhibits a strong sense of wildness although the openness of these uplands has some natural qualities."*

6.7.146 The influence of wind energy development is clearly acknowledged, and the description notes that:

> *"The operational Hare Hill wind farm…[is] located in this character type. The operational Windy Standard wind farm…is located within the same character type but within neighbouring Dumfries and Galloway and lying close to the East Ayrshire boundary. The operational Whiteside Hill and consented Sanquhar wind farms are located within the Nithsdale landscape unit of the Southern Uplands character type within Dumfries and Galloway.*
>
> *The consented South Kyle and Benbrack Variation wind farms are located in the adjacent Southern Uplands with Forest (20c) in East Ayrshire and Dumfries and Galloway respectively."*

6.7.147 This list has now been added to by the external influence of the operational Windy Rig wind farm, the under-construction Sandy Knowe, and consented wind farms at Lethans, Lorg, Pencloe Forest, and Sanquhar Six Community.

6.7.148 As a result, the baseline character of this receptor is/will be strongly influenced by internal and external wind energy development, as can be seen at Viewpoint 2. This is not, however, found uniformly across the LCT; the internal influence of Hare Hill and its extension is in the northern part of the unit, while the majority of external influence is found to the west and east.

6.7.149 The enclosed valleys with a higher level of naturalness that are found in the interior of the Benty Cowan Hill unit are less apparent in this unit due to its limited width and the presence of Hare Hill wind farm in the widest part of the unit, where it influences the valleys as well as the higher hills and ridges.

6.7.150 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The East Ayrshire Southern Uplands – Hare Hill unit has a medium value; the whole of the unit is covered by the East Ayrshire SLA, and there is scenic quality in the Southern Uplands landscape, particularly to the south where wind farm influence is more external. Wind farm development does, however, moderate value to a medium level as this has extensively modified the landscape from its innate character.

6.7.151 The susceptibility of the East Ayrshire Southern Uplands – Hare Hill unit to the Proposed Development is medium. Overall, this is a large-scale landscape with simple landform and landscape patterns, ensuring that the influence of the Proposed Development will not generally lead to scale comparisons between the landscape and the turbines. The susceptibility is also moderated by the direct influence of wind energy within the receptor as well as close-proximity external influence. The medium susceptibility arises from the more complex and distinctive hill landform that is found in the unit, as the Proposed Development can lead to scale comparison with these smaller-scale features.

6.7.152 The combination of the medium value and medium susceptibility to change of the East Ayrshire Southern Uplands – Hare Hill unit (East Ayrshire 20a) unit results in a **medium** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.153 The turbines in the Proposed Development lie out with this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.154 The East Ayrshire Southern Uplands – Hare Hill unit gains intermittent theoretical visibility of the turbines in the Proposed Development from a minimum of around 1.4 km away up to a maximum of around 8.5 km away. This visibility is largely gained from the western side of the unit, where landform is orientated towards the Proposed Development.

6.7.155 Magnitude of change will vary across this LCT due to the extensive nature of the LCT and the variable level of visibility and influence of the Proposed Development.

6.7.156 Some areas in the part of the unit that lies closest to the Proposed Development, a minimum of approximately 1.4 km away, slope towards the Proposed Development and will gain high visibility and influence of the turbines. These areas include the narrow part of the LCT that lies to the east of the Proposed Development, covering the north-western slopes of Alwhat and the western slopes of Blacklorg Hill and Blackcraig Hill.

6.7.157 These areas are strongly characterised by the external influence of Afton, Windy Rig, and Windy Standard II (and, in the comparative baseline scenario, WSI), all of which lie to the west of the LCT, and in future will also be affected by the consented sites at Pencloe Forest and WSIII.

6.7.158 In the comparative baseline scenario, the magnitude of change on these areas will be intermittently **medium** due to the orientation of landform towards the Proposed Development, the scale of the Proposed Development in comparison to other turbines that are seen nearby, and its proximity to the LCT. The magnitude of change is moderated to a medium level by the external baseline wind farm influence (particularly Afton, which is seen in front of the Proposed Development) and WSI on the Proposed Development Area itself, ensuring that it will not introduce a new external influence. In the restored baseline scenario, the maximum magnitude of change will increase slightly as, in the absence of WSI, the Proposed Development will provide the influence of a new wind farm on the setting to the LCT. The magnitude of change will, however, remain medium as the context of surrounding wind energy development within which the Proposed Development will be perceived prevents the occurrence of a higher magnitude of change, irrespective of WSI.

6.7.159 To the east, the maximum medium magnitude of change will extend up to the boundary of this LCT, which lies a maximum of approximately 4.5 km away. To the north-east, where the LCT extends considerably further, the maximum medium magnitude of change will extend to the considerable landform of Blackcraig Hill (Viewpoint 2), which forms a focal point at the centre of the unit and also marks an intermittent break in theoretical visibility of the Proposed Development. This break lies approximately 5.2 km away from the Proposed Development.

6.7.160 Beyond the break, there is an area of high theoretical visibility of the Proposed Development from the lower slopes of Hare Hill. Here, the magnitude of change will be reduced to a maximum **medium-low** level in both the comparative baseline scenario and restored baseline scenario by the direct influence of Hare Hill wind farm, the distance from the Proposed Development and its location behind Afton, and the strong orientation of the landform to the west whereas the Proposed Development lies to the south-west. Elsewhere, the parts of the LCT that lie beyond Blackcraig Hill are shown to gain very intermittent and limited visibility, and where it is visible, the Proposed Development will be seen in the context of Hare Hill and Afton wind farms. The magnitude of change on these areas will also be a maximum of **medium-low**, with the majority of the northern part of the LCT gaining no visibility at all.

Significance of the Effect

6.7.161 The effect of the Proposed Development on the landscape character of the great majority of East Ayrshire Southern Uplands – Hare Hill unit (East Ayrshire 20a) will be **not significant**. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium sensitivity. There will, however, be an intermittent moderate and **significant** effect in both the comparative baseline and restored baseline scenarios on the landscape character of the south-western part of the unit, south of Blackcraig Hill, between 1.4 km and 5.2 km away from the Proposed Development. The combination of a medium magnitude of change and medium sensitivity that is found here can result in an effect that is significant or not significant; in this case the effect is considered to be significant largely due to the orientation of landform towards the Proposed Development and the visibly larger scale of the Proposed Development in relation to other wind farms.

Cumulative Effects

6.7.162 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is also influence of relevant application stage sites, primarily Sanquhar II, which is partly within this unit, but also Euchanhead.

6.7.163 The cumulative effects on this receptor in both the comparative baseline and restored baseline scenarios will be very similar to those assessed for the previous Southern Uplands receptors, the Carsphairn unit of Southern Uplands (D&G 19) the Carsphairn and Ken units of Southern Uplands with Forest (D&G 19a) and Southern Uplands with Forestry (EA 20c) due to the similarly high level of baseline wind energy influence on the landscape character.

6.7.164 Here too, the cumulative effect will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

East Ayrshire Southern Uplands LCT (East Ayrshire 20a) – west Afton unit

6.7.165 The west Afton unit is the third area of East Ayrshire Southern Uplands LCT. This area of landscape lies opposite the Hare Hill unit, on the western side of Afton Glen. This is a very small area of landscape, measuring approximately 4 km long and a maximum of 1 km across at its widest point, and appears to have been distinguished from the adjacent Southern Uplands with Forestry (East Ayrshire 20c) only by the more limited extent of forestry cover.

Baseline and Sensitivity

6.7.166 EALWCS includes the following specific references to the west Afton unit of East Ayrshire Southern Uplands LCT (page 106-112).

- *This area of the Southern Uplands comprises…lower hills with complex interlocking ridges lying to the west of this glen* [Glen Afton]. *This landscape forms a relatively narrow band of hills but comprises part of a more extensive upland area where it borders the Southern Uplands and Southern Uplands with Forestry character types lying in East Ayrshire and Dumfries and Galloway.*
- *The hills of the Southern Uplands range between 360-700m in height in this area. These uplands are not settled and are open with very few scale references.*
- *Steep-sided hills contain Glen Afton…The north-eastern slopes of the band of hills lying west of Afton Glen are generally gentler. Although these hills are generally lower to the west they are often complex, forming a series of interlocking ridges deeply cut by water courses.*
- *These uplands have a simple land-cover of grass moorland with occasional patchy heather. An unsettled landscape with no public roads but accommodating operational wind farm development and access tracks.*
- *The presence of operational wind farm development in these uplands and within close proximity in Dumfries and Galloway, together with nearby extensive commercial forestry inhibits a strong sense of wildness although the openness of these uplands has some natural qualities.*
- *In particular, the operational Afton wind farm has a significant effect on the character of Glen Afton seen from both within the glen and from the Upland Basin (15)…The operational Afton wind farm is also prominent, being sited close to the edge of the cleft cut by the Afton Glen."*

6.7.167 The influence of wind energy development is clearly acknowledged, and the description notes that:

"The operational Afton wind farm [is] *located in this character type. The operational Windy Standard wind farm (66 turbines,53.5m/120m high) is located within the same character type but within neighbouring Dumfries and Galloway and lying close to the East Ayrshire boundary. The operational Whiteside Hill and consented Sanquhar wind farms are located within the Nithsdale landscape unit of the Southern Uplands character type within Dumfries and Galloway.*

The consented South Kyle and Benbrack Variation wind farms are located in the adjacent Southern Uplands with Forest (20c) in East Ayrshire and Dumfries and Galloway respectively."

6.7.168 This list has now been added to by the external influence of the operational Windy Rig and consented Lorg, Pencloe Forest, and Sanquhar Six Community wind farms. Sanquhar and South Kyle wind farms are now operational.

6.7.169 The west Afton unit is very strongly characterised by wind energy development, particularly by Afton wind farm within the unit, but also by close-proximity external influence around the receptor. The small extent of the unit exacerbates the level of influence, and there is little evidence of the pockets of higher naturalness that are found in other units of East Ayrshire Southern Uplands LCT.

6.7.170 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The East Ayrshire Southern Uplands – west Afton unit has a medium-low value; while the whole of the unit is covered by the East Ayrshire SLA, wind farm development moderates value to a medium-low level as this has completely modified the landscape from its innate Southern Uplands character.

6.7.171 The susceptibility of the East Ayrshire Southern Uplands – west Afton unit to the Proposed Development is medium-low. This limited level is largely due to the direct influence of wind energy throughout the receptor as well as close-proximity external influence, which ensures that the Proposed Development will not introduce a new character to any part of the unit. The large-scale and simple landform is also a consideration.

6.7.172 The combination of the medium-low value and medium-low susceptibility to change of the East Ayrshire Southern Uplands – west Afton unit (East Ayrshire 20a) unit results in a **medium-low** sensitivity.

Magnitude of Change

6.7.173 The turbines in the Proposed Development lie out with this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.174 This is a very small unit of East Ayrshire Southern Uplands, lying between 600 m and 2.5 km away from the Proposed Development. The landform rises up from the Water of Deugh and is largely orientated towards the Proposed Development, gaining generally consistent theoretical visibility of the Proposed Development.

6.7.175 In the comparative baseline scenario, the magnitude of change will be **medium** across this unit, as its small size ensures a fairly consistent influence of the Proposed Development. This level of change arises from the proximity of the Proposed Development; its scale in comparison to the baseline wind farm influence, including WSI; and the orientation of landform towards the Proposed Development. The magnitude of change is moderated to a medium level by the strong baseline wind farm influence, both within the LCT and in the aspect of the setting in which the Proposed Development will be seen, ensuring that it will not introduce a new external influence.

Significance of the Effect

6.7.176 The effect of the Proposed Development on the landscape character of the majority of East Ayrshire Southern Uplands – west Afton unit (East Ayrshire 20a) will be moderate and **significant** in both the comparative baseline scenario and the restored baseline scenario. This is due to a combination of the factors that lead to the maximum medium magnitude of change on the receptor and its medium-low sensitivity. This combination of sensitivity and magnitude of change can lead to an effect that is significant or not significant, and in this case it is assessed to be significant due to the proximity of the Proposed Development and its scale in relation to baseline development.

Cumulative Effects

6.7.177 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on this receptor, as described in the assessment above. There is also influence of relevant application stage sites, primarily Sanquhar II.

6.7.178 The cumulative effects on this receptor in both the comparative baseline scenario and the restored baseline scenario will be very similar to those assessed for the previous Southern Uplands receptors, the Carsphairn unit of Southern Uplands (D&G 19) the Carsphairn and Ken units of Southern Uplands with Forest (D&G 19a) and Southern Uplands with Forestry (EA 20c) due to the similarly high level of baseline wind energy influence on the landscape character.

6.7.179 Here too, the cumulative effect will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of this landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Narrow Wooded River Valleys LCT (D&G 4) – Ken unit

6.7.180 The Narrow Wooded River Valleys LCT is found in nine areas throughout Dumfries and Galloway, covering the Cree, Palnure, Moneypool, Fleet, Ken, Urr, Kirtle, Eskdale and Liddle valleys. One of these units – the Ken valley - has potential to be significantly affected by the Proposed Development.

6.7.181 The Ken unit of Narrow Wooded River Valleys is a narrow, linear valley that penetrates into the south-western part of the Ken unit of Southern Uplands with Forest (D&G 19a) and is bounded in almost all directions by Southern Uplands with Forest. The south-western boundary, which is very limited in extent, abuts the Upper Glenkens unit of Upper Dale LCT (Valley) (D&G 9) just to the east of the B729/B7000 junction.

Baseline and Sensitivity

6.7.182 Viewpoint 3 (Water of Ken) lies within the Ken unit of Narrow Wooded River Valleys.

6.7.183 DGWLCS includes the following descriptions of the Ken unit of Narrow Wooded River Valleys (page 96-103). References to the areas that do not have potential to be significantly affected by the Proposed Development have not been included herein.

- *These valleys vary in terms of their narrowness, openness and degree of containment, ranging from shallow valleys which spill into the low relief of the surrounding uplands…to more incised and enclosed valleys strongly contained by high hills and also flat valley floors well defined by steep sided wooded slopes...The height of the valley sides is most pronounced when flanked by the Foothills (18a) and Southern Uplands (19 and 19a) character types [as is the case with the Proposed Development], which can rise to about 350m.*

- *All the valleys are generally sinuous and varied in form. Key landform shapes include: flat bottomed valleys, low river terraces, steep sided but flat topped valley sides and*

occasional moundy deposits along the valley floors and lower side slopes; steep sided hills, undulating skylines, individual slightly rugged hills and more complex interlocking spurs; and long shallow side slopes which extend seamlessly into the low relief of undulating uplands.

- *Overall, land cover pattern within these valleys varies from extensive conifer woodland combined with abandoned fields on the side slopes and with wetland along the valley floor (e.g., the Ken)…Many of the longer valleys combine a range of different land cover patterns from simpler rough grazing, combined with unimproved fields defined by dykes and the semi-natural woodland of the upper reaches to more cultivated lowlands. Woodland features in all the valleys.*
- *Settlement pattern varies widely, from sparsely settled and relatively secluded upland valleys (e.g., the Ken) to much more settled landscapes…Relatively narrow roads wind through these valleys.*
- *These valleys pass through a wide variety of different character types. They are most inter-visible, however, with some of the forested upland types, notably the Southern Uplands with Forest (19a)* [as is the case with the Proposed Development], *Foothills with Forest (18a)…*
- *The sinuous shape of the valleys often limits long views, which are further contained or interrupted by woodland. Views therefore tend to be relatively short and intermittent. The varied rims, or containing horizons of the valleys seen in profile against the sky, are visually prominent.*

6.7.184 There is no baseline wind energy development in the Ken unit of Narrow Wooded River Valleys. There is, however, external influence from Windy Rig wind farm, approximately 3 km away to the north-west, WSI, and further influence is likely to arise from the consented sites at Lorg and Cornharrow to the east and north-east. Construction access to Windy Rig wind farm was taken through the valley and that temporarily affected its character, introducing construction operations, equipment and movement into the otherwise remote and generally undeveloped landscape. This influence has now reduced following the commissioning of Windy Rig, although evidence of construction remains, such as making-good of road-widening and signage at the site access.

6.7.185 The inherent characteristics of the Water of Ken as described above remain largely intact, and the valley has an undeveloped, remote character of low-intensity agriculture and woodland. Forestry blocks and forestry operations (currently taking place towards the south of the unit) do, however, provide a more modified and less natural character in some areas as does intermittent visibility and influence of Windy Rig wind farm.

6.7.186 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The Ken unit of Narrow Wooded River Valleys has a medium value; while it is not covered by any scenic designations, the landscape does have value in its contrast with the surrounding uplands and the intermittently intact nature of its innate characteristics.

6.7.187 The susceptibility of the Ken unit of Narrow Wooded River Valleys to the Proposed Development is medium-high. The turbines can lead to scale comparisons with the relatively enclosed nature of the landform and the complexity of some landscape patterns such as field boundaries and woodland, especially around residential properties. Susceptibility is also heightened by the relationship of the Proposed Development with the skyline that encloses the valley; as noted in DGWLCS, the "…*containing horizons of the valleys seen in profile against the sky, are visually prominent"*. A high susceptibility is precluded by the underlying large scale of the valley landform and the baseline wind farm and forestry influence that is intermittently apparent.

6.7.188 The combination of the medium value and medium-high susceptibility to change of Narrow Wooded River Valleys LCT (D&G 4) - Ken unit results in a **medium-high** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.189 The turbines in the Proposed Development lie outwith this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.190 The Narrow Wooded River Valleys LCT – Ken unit gains very intermittent theoretical visibility, partly blade only, of the Proposed Development from a minimum of around 4.3 km away up to a maximum of around 11 km away. This visibility is in two areas; one towards the northern end of the unit (within which Viewpoint 3 is located) and the other covering the southern part of the unit. Visibility in both areas is very limited, with no areas gaining theoretical visibility of more than six turbines and the majority being less than this. Part of this is also blade only, and further screening is provided by forestry, especially in the southern area of the unit.

6.7.191 The Proposed Development is almost always seen in conjunction with Windy Rig, and in views from the southern area, Windy Rig is seen directly in front of the Proposed Development. From the northern area, Windy Rig is generally seen adjacent to the Proposed Development, as seen at Viewpoint 3.

6.7.192 In the comparative baseline scenario, the maximum magnitude of change on the northern area of visibility will be **medium-low** due to the very limited theoretical visibility of the Proposed Development; the visibility of the Proposed Development in close association with Windy Rig, which is closer to the receptor; the distance of this part of the receptor from the Proposed Development (a minimum of approximately 4.3 km); and the presence of WSI in the same part of the setting to the LCT as where the Proposed Development will be seen.

6.7.193 In the restored baseline scenario, the magnitude of change on the view will increase slightly but will remain medium-low. This increase arises in this scenario because when the WSI turbines are not part of the baseline, the Proposed Development will appear on a section of the skyline setting that is not otherwise affected by turbines and will therefore increase the level of visible wind energy development. However, the context of the adjacent wind energy development at Windy Rig and the integration of the Proposed Development with Windy Rig prevent the occurrence of an increased magnitude of change.

6.7.194 The maximum magnitude of change on the southern area of visibility will be **low** in both the comparative baseline scenario and the restored baseline scenario due to the very limited theoretical visibility of the Proposed Development; further screening by forestry; the visibility of the Proposed Development in direct conjunction with Windy Rig; and the distance of this part of the receptor from the Proposed Development (over 6.5 km away).

Significance of the Effect

6.7.195 The effect of the Proposed Development on the landscape character of the Ken unit of Narrow Wooded River Valleys will be moderate and **not significant** in both the comparative baseline scenario and the restored baseline scenario. This is due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium-high sensitivity. This combination of sensitivity and magnitude of change can lead to an effect that is significant or not significant; in this case the effect is assessed to be not significant due to the integration between the Proposed Development and Windy Rig, which ensures that it will not introduce a new external influence on the receptor.

Cumulative Effects

6.7.196 There is current and predicted baseline influence of Lorg, Windy Rig and, in the comparative baseline scenario, WSI, on this receptor, and also application stage sites at Euchanhead, Sanquhar II and Shepherds' Rig.

6.7.197 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on landscape character. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and Windy Rig, as will the increase in the horizontal extent of the Proposed Development across the setting to the receptor in comparison with WSI.

6.7.198 In relation to the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks), the introduction of the Proposed Development turbines onto the site and the larger scale of these turbines in relation to Windy Rig will lead to some cumulative effects.

6.7.199 However, in both scenarios, this cumulative effect arising from the Proposed Development is moderated by the level of integration between the Proposed Development and Windy Rig in terms of apparent scale, layout, and landscape setting. In the comparative baseline scenario, the Proposed Development will have a higher level of integration with Windy Rig than does WSI, and the removal of the disparities between WSI and Windy Rig is beneficial in cumulative terms. This increased level of integration ensures that while the addition of the Proposed Development will increase the apparent influence of wind energy development, the Proposed Development and Windy Rig will appear as an integrated wind farm influence, and the Proposed Development will not lead to the creation of a landscape character in which multiple wind farms are a key characteristic.

6.7.200 In the predicted baseline scenario, Lorg is also considered. This will not alter the cumulative effect as the integration of the Proposed Development with Windy Rig will continue to ensure that these two sites appear as a single wind farm in terms of external influence on the receptor. Similarly, the integration of the Proposed Development and Windy Rig also ensures that there will be no notable further cumulative effect when application stage wind farms at Euchanhead, Sanquhar II and Shepherds' Rig are also considered.

6.7.201 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the level of integration between the Proposed Development and Windy Rig wind farm, which ensures that the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Upland Glen LCT (East Ayrshire 14)

6.7.202 There is one area of Upland Glen LCT in East Ayrshire; Glen Afton. Glen Afton is a narrow, linear valley that penetrates into the various Southern Uplands types found in Dumfries and Galloway and East Ayrshire.

Baseline and Sensitivity

6.7.203 EALWCS includes the following specific references to the Glen Afton unit of Upland Glen LCT (page 54-64).

- *These narrow glens are visually cut off from other landscape types, with the exception of the immediate edges of the surrounding upland character types of the East Ayrshire Southern Uplands (20a) which form the upper rim of Glen Afton…*
- *These are narrow, high sided valleys with flat floors. The steep valley sides create a high degree of enclosure. The height of the valley sides is most pronounced and dramatic when flanked by the high, rugged Southern Upland hills (20a, 20b). Glen Afton and Glen App are well settled with small farms and houses and enclosed fields located on the flat glen floor and lower hill slopes.*
- *The glens are relatively narrow, with flat floors and steep side slopes rising to irregular ridgelines. Valley sides are consistently steep…in upper Glen Afton. The well-defined rugged hills of Blackcraig and Craigbraneoch Rig in Glen Afton…form landmark features. The western side slopes of lower Glen Afton are more gently graded with occasional rolling landform and small stepped terraces.*
- *Rough grassland on the tops of the ridges extends down to head dykes, separating the open grass and patchy heather moor on the upper slopes from fields of enclosed semi improved pasture on lower slopes. Narrow glen floors are often more open with smooth pastures providing a scenic contrast with more rugged and coarsely vegetated hill slopes. Lower Glen Afton is patterned with small clumps of broadleaves although the steep hill slopes surrounding Afton Reservoir are covered with coniferous forestry.*
- *Dispersed farms and cottages, become sparser towards the heads of the glens. Settlement is generally located as point features along the edge of the valley floor and is frequently associated with side valleys… a no-through single-track road provides access up Afton Glen…Utilitarian buildings and infrastructure are associated with Afton Reservoir at the head of Glen Afton.*
- *…while upper Glen Afton has a rugged upland character, views of the Afton and Hare Hill wind farm and water authority buildings and infrastructure limits a pronounced sense of wildness.*
- *Views from roads often focus along the length of Glen App and Glen Afton. The heads of the glens are often the focal point for key views, and the irregular shaped skyline around the rim of the glen is visually prominent.*

6.7.204 EALWCS erroneously states that there is no baseline wind energy development in Glen Afton, although it does note that "*the recently constructed Afton wind farm (27 turbines, 100/120m) is sited on the ridge which forms the skyline at the head of this narrow glen…and significantly influences character and views within this glen*". Afton wind farm is in fact located partly within Glen Afton, with nine turbines and associated infrastructure within the glen as well as the site entrance and access track. These are immediately apparent and highly influential features in the southern part of the glen.

6.7.205 EALWCS also refers to nearby wind farms:

> *"The Hare Hill operational wind farm…is located within the adjacent East Ayrshire Southern Uplands (20a) character type, approximately 1.5km to the east of Glen Afton and is visible in close proximity on the skyline of the middle section of this glen. The WSI and II operational wind farm…is also located within the same Southern Uplands character type but within neighbouring Dumfries and Galloway. Although this wind farm lies within 1.5 km to the west of Glen Afton views to it are restricted from the floor of this glen."*

6.7.206 This list will be further added to by the consented Pencloe Forest wind farm, which is located on the western edge of the glen and has high theoretical visibility from this receptor. The Glen Afton unit of Upland Glen is intermittently strongly characterised by wind energy development, particularly by Afton wind farm within the unit, but also the close-proximity external influence of Hare Hill. The contained and enclosed nature of the unit exacerbates the level of influence, and the innate remote, upland character of the glen has, in places, been considerably modified. There are, however, parts of the glen that retain their innate character, where wind energy development is screened by landform, or where the woodland cover ensures that its influence is limited.

6.7.207 Sensitivity is determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. The sensitivity of the receptor in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The Glen Afton unit of Upland Glen has a medium value; the whole of the unit is covered by the East Ayrshire SLA, and parts of it have retained a strong innate character and a sense of place. However, wind farm development has notably affected the scenic qualities of extensive parts of the landscape from its innate Upland Glen character and this moderates its value.

6.7.208 The susceptibility of the Glen Afton unit of Upland Glen to the Proposed Development is medium, due largely to the scale comparison that can arise between the Proposed Development turbines and the glen landscape, as the innate smaller scale and sometimes complex landscape patterns such as field boundaries and woodland are apparent. Susceptibility is also heightened by the relationship of the Proposed Development with the enclosing skyline; as noted in EALWCS, the "…*the irregular shaped skyline around the rim of the glen is visually prominent*.". Susceptibility is, however, moderated by the extensive internal and external influence of wind energy found in parts of the receptor, which ensures that the Proposed Development will not introduce a new character influence.

6.7.209 The combination of the medium value and medium susceptibility to change of the Upland Glen LCT (East Ayrshire 14) unit results in a **medium** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.210 The turbines in the Proposed Development lie out with this receptor and effects will arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on landscape character.

6.7.211 The Upland Glen LCT gains intermittent and limited theoretical visibility, much of it blade only, of the Proposed Development from a minimum of around 1 km away up to a maximum of around 7.7 km away. The closer theoretical visibility is gained from the western side of the glen, which faces away from the Proposed Development, and therefore gains very little influence from it. The closer areas of visibility are also (directly and indirectly) strongly influenced by Afton wind farm, which lies between the receptor and the Proposed Development, and this too reduces the influence of the Proposed Development.

6.7.212 The higher levels of theoretical visibility of the Proposed Development are gained from the upper eastern edges of the glen and the landform of Yarngallows Knowe, where the elevated landform ensures that longer westwards views are gained. However, even here the Proposed Development will be seen in direct conjunction with Afton wind farm, which is seen at much closer proximity.

6.7.213 The magnitude of change on Glen Afton will be the same in both the comparative baseline scenario and the restored baseline scenario, as WSI has very limited influence on the majority of the receptor and, where it is visible, is consistently seen in conjunction with Afton wind farm. The maximum magnitude of change on will be **medium-low** due to the limited and intermittent theoretical visibility of the Proposed Development; the consistent visibility of the Proposed Development in direct conjunction with Afton wind farm, which is closer to the receptor; and the nature of the glen landform, which ensures that the closer areas gain very limited visibility, with landform orientated strongly away from the Proposed Development. When the consented site at Pencloe Forest is also considered, the maximum magnitude of change will drop to a **low** level as the Proposed Development will be seen behind this wind farm, and this will further reduce its influence.

Significance of the Effect

6.7.214 The effect of the Proposed Development on the landscape character of Upland Glen LCT (East Ayrshire 14) will be moderate/minor and **not significant** in both the comparative baseline scenario and the restored baseline scenario due to a combination of the factors that lead to the maximum medium-low magnitude of change on the receptor and its medium sensitivity. When consented wind farms are also taken into consideration the magnitude of change will reduce to a low level and the effect will remain not significant.

Cumulative Effects

6.7.215 There is current and predicted baseline influence of Afton, Hare Hill and Pencloe Forest wind farms on this receptor, and also application stage sites at Euchanhead and Sanquhar II.

6.7.216 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on landscape character as it will add further wind farm influence to that of Afton wind farm through the introduction of taller turbines onto the Proposed Development Area. However, this cumulative effect arising from the Proposed Development is moderated by the level of integration between the Proposed Development and Afton in terms of its influence on landscape character. This level of integration ensures that while the addition of the Proposed Development will increase the apparent influence of wind energy development, the Proposed Development and Afton will appear as an integrated wind farm influence, and the Proposed Development will not lead to the creation of a landscape character in which multiple wind farms are a key characteristic. This will apply in both the comparative baseline scenario and the restored baseline scenario due to the limited influence of WSI.

6.7.217 In the predicted baseline scenario, Pencloe Forest is also considered. This will not alter the cumulative effect due to the integration of the Proposed Development with Afton. Similarly, the integration of the Proposed Development and Afton also ensures that there will be no notable further cumulative effect when application stage wind farms at Euchanhead and Sanquhar II are also considered.

6.7.218 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the level of integration between the Proposed Development and Afton wind farm, which ensures that the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Dumfries and Galloway: Galloway Hills RSA

6.7.219 There is potential for the Galloway Hills RSA to be significantly affected by the Proposed Development due to its proximity to the Proposed Development (a minimum of approximately 1.9 km) and the level of theoretical visibility of the turbines.

Baseline and Sensitivity

6.7.220 Viewpoint 1 (Cairnsmore of Carsphairn), Viewpoint 10 (A713, Carsfad Loch), Viewpoint 16 (Meikle Millyea), Viewpoint 17 (A762 North of New Galloway) and Viewpoint 19 (Merrick) lie within the Galloway Hills RSA.

6.7.221 RSAs Technical Paper (DGC, 2014) includes the following description of the Galloway Hills RSA:

> *"This area centres on the Rugged Granite Uplands and Coastal Granite Uplands of central Galloway, extending from the Ayrshire boundary south to where the hills meet the sea. It is based on an amalgam of the following three ARSSs; Valley of Ken/Dee River System; Cairnsmore, Merrick and Rhinns of Kells Uplands; and Fleet Estuary and Valley. It includes the Fleet Valley National Scenic Area and its setting. South of the Fleet Estuary, the area merges into the Solway Coast RSA…*
>
> *This is the largest Regional Scenic Area, a reflection both of the scale of the landscape of the Galloway Hills and the interesting juxtaposition of contrasting upland, valley and coastal landscapes. The relationship between the hills and the adjacent lowlands gives rise to sweeping and dramatic views of the hills, in particular from the western side of Wigtown Bay and certain sections of the perimeter valleys. The overall scale of the designated area results in some parts, particularly those areas included because of their contribution to the wider view, being of less internal scenic interest than others. Examples include certain of the*

forested foothills of the Merrick and the Rhinns of Kells. However, these areas form the setting to the dramatic summits of the Galloway Uplands, and so warrant designation as an integral part of the scenically valued landscape of the Galloway hills, to protect them from unsuitable development, and encourage sensitive management.

The uplands vary in character from the massive craggy peaks of the Rugged Granite Uplands with their heather covered slopes and granite outcrops to the smoother, rounder, lower summits of the Foothills, and their extensive forested counterparts. The designated area was extended to include the dramatic sculptural peaks of the Cairnsmore of Carsphairn Southern Uplands Landscape Unit to the east, as well as the forested eastern slopes of the Rhinns of Kells.

The peripheral Narrow Wooded Valleys and the Coastal Flats of adjacent estuaries were included both for their own inherent characteristics and because of their scenic juxtaposition with the uplands. Scenic Area boundaries follow the immediate outward facing visual envelope of these valleys. More distant hills outwith the central hill mass of the Galloway Uplands, but which may be visible from these valleys, were excluded as being less critical to the scenic value of the area, but the potential impact on the designated area of proposals in these areas should be considered.

Much of the central area is uninhabited and is accessible only via forestry roads or on foot, other than via the scenic A712 'Queensway', and Rusko and Coarse of Slakes roads. However there are several villages plus the small towns of Gatehouse of Fleet and Newton Stewart in the peripheral valleys, and a range of tourist facilities including camping and caravan sites. The area sees continued interest in forestry such that land-use balance is a potential issue, and is subject to interest from windfarm developers."

6.7.222 Tors Hill wind farm and several turbines of the consented Benbrack Variation and operational Windy Rig lie within the Galloway Hills RSA. There is extensive external wind energy influence, with the majority of this clustered around the north and north-eastern boundary of the RSA, including Afton; the remainder of Benbrack Variation and Windy Rig; Blackcraig; Cornharrow; Glenshimmeroch; South Kyle; and WSI, II and III.

6.7.223 Sensitivity is normally determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. However, it is not possible to attribute an overall susceptibility of the RSA to the Proposed Development as this varies widely across the designated area due to the great variation in landscape character and the differing relationship and association with the Proposed Development that each part of the RSA has. This is evidenced in the range of susceptibility of the various LCTs and units within the RSA that are assessed above.

6.7.224 The sensitivity of the Galloway Hills RSA has therefore been based on its value, which is considered to be medium-high due to its regionally important scenic designation and the quality of the landscape, which has retained its innate characteristics to a large degree (although this has been affected by the internal and external influence of wind energy development, particularly in the north-eastern corner) as well as a sense of place and scenic qualities.

6.7.225 The medium-high value results in a **medium-high** sensitivity for the Galloway Hills RSA in both the comparative baseline scenario and the restored baseline scenario.

The Special Qualities of the RSA

6.7.226 The RSAs Technical Paper does not provide a specific description of the 'special qualities' of the Galloway Hills RSA. However, the overview of the RSA that is included in the Technical Paper, quoted above, does describe characteristics of the RSA, and these can be drawn upon to identify a set of qualities that are important in the designation of the of the RSA, as follows:

- The scale of the landscape of the Galloway Hills;
- The juxtaposition of contrasting upland, valley and coastal landscapes;
- The dramatic summits of the Galloway Uplands with their massive craggy peaks;
- The forested foothills of the Merrick and the Rhinns of Kells which form the setting to the dramatic summits of the Galloway Uplands;
- The varied character of the uplands including massive craggy peaks of the Rugged Granite Uplands with their heather covered slopes and granite outcrops to the smoother, rounder, lower summits of the Foothills, and their extensive forested counterparts;
- The dramatic sculptural peaks of the Cairnsmore of Carsphairn Southern Uplands Landscape Unit; and
- The inherent characteristics of the peripheral Narrow Wooded Valleys and Coastal Flats of adjacent estuaries and their scenic juxtaposition with the uplands.

6.7.227 The effect that the Proposed Development may have on these special qualities is described below.

Magnitude of Change

6.7.228 The ZTV shows that theoretical visibility of the Proposed Development from the RSA is found in the eastern side of the designated area, where there is very intermittent and often very limited visibility, much of it blade only. The central and western parts of the RSA have almost no theoretical visibility.

6.7.229 The part of the RSA that lies closest to the Proposed Development is its north-eastern corner, which covers Cairnsmore of Carsphairn (Viewpoint 1). Several turbines of Windy Rig and the consented Benbrack Variation wind farms lie within this corner of the RSA. Visibility of the Proposed Development at close proximity is limited, with one area of high visibility shown on the ZTV and otherwise very limited and intermittent up to around 10 km away. This area of higher visibility covers the northern and eastern slopes of Cairnsmore of Carsphairn, between around 1.9 km and 5.5 km away from the Proposed Development.

6.7.230 This part of the RSA is covered by the Carsphairn unit of the Southern Uplands LCT (D&G 19). The maximum magnitude of change on this this LCT is assessed to be **medium** in the comparative baseline scenario and **medium-high** in the restored baseline scenario, and this will also apply to the north-eastern corner of the RSA, up to approximately 5.5 km from the Proposed Development.

6.7.231 Beyond 5.5 km away, visibility drops considerably due to landform screening by Cairnsmore of Carsphairn, and the magnitude of change will drop to a maximum of **medium-low/low**.

6.7.232 As well as considering the magnitude of change in relation to landscape character, it is important to assess the effect that the Proposed Development may have on the special qualities of the RSA as a whole, as noted above. These special qualities are set out below, along with an assessment of the potential for effects to arise.

The scale of the landscape of the Galloway Hills

6.7.233 The Proposed Development will not directly affect the scale of the landform but may have some effect on the perception of scale as seen, for example, at Viewpoint 1, in both the comparative baseline scenario and restored baseline scenario. However, this effect is limited by the context of operational and under construction wind energy development in which the Proposed Development turbines are seen, as they lie further away from the RSA than other turbines and this will reduce their perceived scale. Beyond around 5.5 km away, the scale of the Proposed Development turbines will be less apparent, and this effect will diminish.

6.7.234 This special quality is likely to be affected by the Proposed Development, but the effect will be not significant as it is highly localised and restricted to an area that is strongly influenced by baseline wind energy development.

The juxtaposition of contrasting upland, valley and coastal landscapes and *the inherent characteristics of the peripheral Narrow Wooded Valleys and Coastal Flats of adjacent estuaries and their scenic juxtaposition with the uplands*

6.7.235 The Proposed Development will not affect the contrast between the various landscapes of the RSA. It is located in an upland area that is strongly influenced by wind energy development, and will not affect the relationship between the uplands and valleys/coastal landscapes. These special qualities will not be affected by the Proposed Development in either the comparative baseline scenario or the restored baseline scenario.

The dramatic summits of the Galloway Uplands with their massive craggy peaks

6.7.236 The "*dramatic summits of the Galloway Uplands*" lie to the south-west of the Proposed Development, and this special quality will not be affected by the Proposed Development in either the comparative baseline scenario or the restored baseline scenario.

The forested foothills of the Merrick and the Rhinns of Kells which form the setting to the dramatic summits of the Galloway Uplands

6.7.237 The Proposed Development lies to the north-east of both the "*forested foothills of the Merrick and the Rhinns of Kells*" and the "*dramatic summits of the Galloway Uplands*" and will therefore not alter the setting or interrupt the relationship between them. This special quality will not be affected by the Proposed Development in either the comparative baseline scenario or the restored baseline scenario.

The varied character of the uplands including massive craggy peaks of the Rugged Granite Uplands with their heather covered slopes and granite outcrops to the smoother, rounder, lower summits of the Foothills, and their extensive forested counterparts

6.7.238 The Proposed Development lies out with the RSA and will not directly alter the patterns of elements – "*heather covered slopes and granite outcrops…smoother, rounder, lower summits…extensive forested counterparts*" - that characterise the "*varied character of the uplands*". While it may have some effect on the perception of landscape character as seen, for example, at Viewpoint 1, this effect is limited by the context of operational and under construction wind energy development in which the Proposed Development turbines are perceived. This special quality may be affected by the Proposed Development, but the effect will be not significant in both the comparative baseline scenario and the restored baseline scenario as it is highly localised and restricted to an area that is strongly influenced by baseline wind energy development.

The dramatic sculptural peaks of the Cairnsmore of Carsphairn Southern Uplands Landscape Unit

6.7.239 The Proposed Development lies outwith the RSA and will not directly affect the "*dramatic sculptural peaks of the Cairnsmore of Carsphairn Southern Uplands Landscape Unit"* within the RSA. It is likely to have some effect on the perception of landscape character of the peaks, but this effect is limited by the context of wind energy development in which the Proposed Development turbines are perceived. This special quality may be affected by the Proposed Development, but the effect will be not significant in both the comparative baseline scenario and the restored baseline scenario.

The inherent characteristics of the peripheral Narrow Wooded Valleys and Coastal Flats of adjacent estuaries and their scenic juxtaposition with the uplands

6.7.240 The Proposed Development will not affect the contrast between the various landscapes of the RSA. It is located in an upland area that is already influenced by wind energy development, and will not affect the relationship between the uplands and valleys/coastal landscapes. This special quality will not be affected by the Proposed Development in either the comparative baseline scenario or the restored baseline scenario.

Significance of the Effect

6.7.241 The assessment above indicates that while the Proposed Development will have a maximum medium (in the comparative baseline scenario) or medium-high (in the restored baseline scenario) magnitude of change on the landscape character of the north-eastern corner of the RSA, this effect will be highly localised and the effect on the special qualities of the RSA will be not significant. This is because of the location of the Proposed Development outwith and peripheral to the designated area, which ensures that it will not directly alter the characteristics of the RSA or interrupt the relationships between the various landscape types that lie within the RSA, and because it is perceived in a part of the setting to the RSA that is already strongly characterised by wind energy development.

6.7.242 The effect of the Proposed Development on the integrity of the RSA as a whole is **not significant** in both the comparative baseline scenario and the restored baseline scenario.

Cumulative Effects

6.7.243 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on the Galloway Hills RSA, as described in the assessment above. There is also influence of relevant application stage sites, primarily Shepherds' Rig, which is partly within the RSA.

6.7.244 The cumulative effects of the Proposed Development on the RSA in both the comparative baseline scenario and the restored baseline scenario will be very similar to those assessed for the Carsphairn units of Southern Uplands (D&G 19) and Southern Uplands with Forest (D&G 19a), which cover the part of the RSA that is most affected by the Proposed Development.

6.7.245 As with the LCTs, the cumulative effect on the RSA will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of the landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

East Ayrshire SLA

6.7.246 The majority of the areas of SLA in East Ayrshire are considered to not have potential to undergo a significant effect as a result of the Proposed Development. One area of SLA is, however, lies a minimum of approximately 450 m to the north-east of the nearest turbine in the Proposed Development, and has potential to undergo a significant effect. The area of SLA included in the assessment extends up to around 8 km away, near New Cumnock, where there is a natural cut-off point due to a break in theoretical visibility as shown on the ZTVs.

Baseline and Sensitivity

6.7.247 Viewpoint 2 (Blackcraig Hill) lies within this area of East Ayrshire SLA.

6.7.248 The Background Paper 'Sensitive Landscape Areas'[13] states that:

> *"The designation of the Sensitive Landscape Area is considered an appropriate means of ensuring East Ayrshire's most valuable landscapes are fully respected in preparing and assessing development proposals. The Sensitive Landscape Area designation does not prevent development. Instead, it requires development proposals to fully consider the qualities that make the landscape valuable and to seek sites and design solutions that respect these qualities and minimise adverse impacts."*

6.7.249 The SLA designation does not constitute a specific citation of the 'special qualities' of the SLA but is based on LCTs that are considered to be of particular value, as set out in the Background Paper.

6.7.250 The area of the SLA that is included in this assessment is covered by three LCTs:

- East Ayrshire Southern Uplands (LCT 20a);
- Southern Uplands with Forestry (LCT 20c); and

- Upland Glen (LCT 14).

6.7.251 East Ayrshire Southern Uplands (LCT 20a) and Southern Uplands with Forestry (LCT 20c) are described together in the Background Paper:

> *"The steep sided, rugged open hills of the Southern Uplands form a dramatic backdrop to the adjacent low-lying upland basin, and form an important part of East Ayrshire's southern skyline. The well-defined, steep-sided hills on the eastern edge of Glen Afton, Blackcraig and Craigbraneoch, are important landmark features and provide for some spectacular views.*
>
> *The Uplands to the east of Glen Afton is an important area for recreation/hill walking. The eastern section of the Southern Uplands with Forestry is included within the Sensitive Landscape Area. This landscape parcel forms an important buffer between Glen Afton and the non-forested section of the Southern Uplands, and helps provide a logical boundary to the Sensitive Landscape Area."*

6.7.252 Upland Glen (LCT 14) is described as follows:

> *"Glen Afton is the only Upland Glen within East Ayrshire, making it an important landscape feature for the area. The high ridgelines are visually prominent and the rugged upland landscape has a high scenic value, attractive to walkers. With only a single track road through the Glen, it provides a relatively remote and tranquil landscape."*

6.7.253 The assessment of effects on these three LCTs is described in full previously in this Chapter, and that assessment is drawn upon in the assessment of effects on the SLA. It should be taken into consideration that, as noted in the assessment of effects on the LCTs, the character of these LCTs has been considerably altered by extensive wind energy development both within the LCTs and in surrounding LCTs. The descriptions given in the Background Paper predate this level of wind energy development and as a result are not considered to present a realistic impression of the current character and value of each of the LCTs.

6.7.254 The sensitivity each of the individual LCTs that lie within the SLA is assessed previously in this chapter. However, for the purpose of the assessment of effects on the SLA as a single, designated entity rather than the separate constituent parts of the LCTs, the sensitivity has been reassessed.

6.7.255 Sensitivity is normally determined through a combination of the value attached to the landscape character receptor and its susceptibility to the Proposed Development. However, it is not possible to attribute an overall susceptibility of this SLA to the Proposed Development as this varies across the designated area due to the variation in landscape character and the differing relationship and association with the Proposed Development that each part of the SLA has.

6.7.256 The sensitivity of the East Ayrshire SLA has therefore been based on its value, which is considered to be medium-high due to its regionally important scenic designation. The medium-high value results in a **medium-high** sensitivity for the East Ayrshire SLA in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.257 The magnitude of change of the Proposed Development on the LCTs that cover the relevant part of the SLA is assessed previously in this section, as follows:

- East Ayrshire Southern Uplands (EA LCT 20a): maximum medium magnitude of change in both the comparative baseline scenario and the restored baseline scenario up to a maximum of approximately 6.5 km away;
- Southern Uplands with Forestry (EA LCT 20c): maximum medium magnitude of change in both the comparative baseline scenario and the restored baseline scenario up to a maximum of approximately 5.2 km away; and
- Upland Glen (EA LCT 14): maximum medium-low magnitude of change in both the comparative baseline scenario and the restored baseline scenario.

6.7.258 Beyond these closer areas, the magnitude of change drops to medium-low and low levels.

6.7.259 The magnitude of change on the landscape character of the SLA will reflect these levels assessed for the individual LCTs, and will therefore be a maximum of **medium** within up to 6.5 km away from the Proposed Development, dropping to a maximum of **medium-low** beyond this, in both the comparative baseline scenario and the restored baseline scenario.

6.7.260 As well as looking at the magnitude of change in relation to individual LCTs, it is important to assess the effect that the Proposed Development may have on the SLA as a whole, as it is designated for the juxtaposition of various LCTs. When it is taken as a whole, it is notable that the part of the SLA that will be affected by the Proposed Development is already strongly characterised by wind energy development, both internally and externally. This ensures that the Proposed Development will not in any way introduce a new external influence on this part of the SLA but will add to an existing influence.

6.7.261 The magnitude of change on the SLA as a whole is considered to be **low** due to the baseline prevalence of wind energy development within and adjacent to the part of the SLA that will be affected by the Proposed Development.

Significance of the Effect

6.7.262 The assessment above indicates that while the Proposed Development will have a maximum medium magnitude of change on the landscape character of the southern edge of the SLA, this effect will be highly localised and the effect on the SLA as a whole will be **not significant** in both the comparative baseline scenario and the restored baseline scenario. This is because of the location of the Proposed Development outwith and peripheral to the designated area, which ensures that it will not directly alter the characteristics of the SLA or interrupt the relationships between the various landscape types that lie within the SLA, and because it is perceived in a part of the setting to the SLA that is already strongly characterised by wind energy development.

6.7.263 The effect of the Proposed Development on the integrity of the SLA as a whole is **not significant**.

Cumulative Effects

6.7.264 There is influence – both direct and indirect - of a number of operational, under construction and consented wind farms on the East Ayrshire SLA, as described in the assessment above. There is also influence of relevant application stage sites, primarily Sanquhar II which is partly within the SLA, but also Euchanhead and Greenburn.

6.7.265 The cumulative effects of the Proposed Development on the SLA will be very similar to those assessed for the LCTs that are covered by the relevant part of the SLA: East Ayrshire Southern Uplands (EA LCT 20a); Southern Uplands with Forestry (EA LCT 20c); and Upland Glen (EA LCT 14).

6.7.266 As with the LCTs, the cumulative effect on the SLA will be **not significant** in all scenarios, as the operational and under construction wind farms are a prevailing characteristic of the landscape, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Effects on Views

6.7.267 Effects on views are the changes to views that result from the introduction of the Proposed Development. The assessment of effects on views includes effects on the 20 viewpoints which represent visibility of the Proposed

Development from around the study area, and effects on principal visual receptors such as settlements and routes. Night-time effects of visible aviation lighting are assessed separately in the following section of this chapter.

6.7.268 Section 6.6 of this Chapter identifies the viewpoints and principal visual receptors that have the potential to undergo significant effects (including significant cumulative effects) and therefore require further assessment. The effect on each of these viewpoints and principal visual receptors is assessed below. The other viewpoints and principal visual receptors were found through the initial filtering process to not have the potential to undergo a significant effect and have therefore not been assessed in any further detail.

6.7.269 The viewpoints and principal visual receptors that are assessed in more detail are as follows:

- Viewpoint 1. Cairnsmore of Carsphairn;
- Viewpoint 2. Blackcraig Hill;
- Viewpoint 3. Water of Ken;
- Viewpoint 4. Benbrack;
- Viewpoint 5. New Cumnock;
- Viewpoint 6. B729 Carroch Bridge to Guttery Glen;
- Viewpoint 7. Minor road near Auchincross;
- Viewpoint 8. Loch Doon;
- Viewpoint 9. A76 at Cumnock;
- Viewpoint 11. Auchenroy Hill;
- Viewpoint 12. Forest Drive, Carrick Lane/ Loch Doon;
- Viewpoint 13. Minor road at Guffock Hill;
- Viewpoint 16. Meikle Millyea;
- The settlements of Leggate, Connel Park and Bankglen;
- The settlement of New Cumnock;
- A713; and
- SUW.

6.7.270 This assessment considers both the effects of the Proposed Development itself, in relation to the baseline characteristics of views, and the cumulative effects that may arise from the addition of the Proposed Development to other wind farms.

6.7.271 The assessment of the effects of the Proposed Development itself is carried out in relation to the baseline view, which does, where relevant, include consideration of operational and under construction wind farms. At some viewpoints, the consideration of consented wind farms will alter the effect that the Proposed Development will have on the view; where this is the case, a separate assessment is carried out using a scenario that includes consented wind farms.

6.7.272 The cumulative assessment considers various possible scenarios of other wind farm development including the current baseline and predicted baseline as described above, and also considering relevant application stage wind farms. The application stage wind farms are considered on a case-by-case basis for each landscape receptor as there is no certainty as to whether or not they will form features in the landscape in the future.

6.7.273 Photographs, wirelines and photomontages for each viewpoint, including cumulative wirelines, are shown in Figures 6.16 to 6.35 In these wirelines, the Proposed Development turbines are shown in red; operational wind farms in black (with one exception; the operational WSI wind farm is shown in dark grey); under construction windfarms in purple; consented wind farms in green and application (or appeal) stage wind farms in blue. A separate set of wirelines that show cumulative wind farms without WSI is included within the figures in Volume 3 in order to illustrate and inform the assessment of effects in relation to the restored baseline scenario.

6.7.274 The cumulative situation has evolved during the process of the photography for the Proposed Development, with the commencement of construction of three wind farms (Sandy Knowe, South Kyle and Windy Rig) that lie at close proximity to the Proposed Development. As a result, the baseline photographs show various stages of development of some turbines. In order to ensure consistency in the visualisations and the assessment, the turbines of these three wind farms have been photomontaged into the 53.5º photomontages for each viewpoint where they are visible. In some cases this has involved the 'removal' of constructed or partly constructed turbines from the baseline photographs. This approach has been agreed with DGC and NatureScot (emails 23 and 28 March 2022 respectively).

6.7.275 Where long-term infrastructure is visible in views and may contribute to the overall visibility and level of effect arising from the Proposed Development, it has been photomontaged into the view in addition to the turbines in the Proposed Development. This is the case for Viewpoints 1 and 2, where upgraded access tracks and hardstandings are shown in the photomontages. Forestry felling required for the Proposed Development is also shown in these views, although it is very limited in extent and barely discernible. Short-term infrastructure has not been shown in the photomontages as it will be visible only during the construction phase, but it is described in the text where relevant. A combination of the elevated nature of the site, its enclosure by high ground, and the limited new infrastructure that is required for the Proposed Development ensure that visibility of infrastructure is very limited.

Viewpoint 1. Cairnsmore of Carsphairn

Baseline and Sensitivity

6.7.276 This viewpoint is located at the summit of Cairnsmore of Carsphairn (797 m AOD), just over 4 km to the south-west of the nearest turbine in the Proposed Development. This Corbett is a walking destination (accessed in part by D&G core path 487) and a local landmark due to its distinctive landform. It is described in DGWLCS as "*…distinctive craggy and shapely peaks and deeply folded slopes, corries and dramatically incised valleys also occur, for example Cairnsmore of Carsphairn…*"

6.7.277 This viewpoint lies within the Carsphairn unit of Southern Uplands LCT, and the generally smooth, rounded hills of the various Southern Uplands LCTs can be seen around the viewpoint. Focal points are seen around the view, including the hilltops of Benbrack to the east and the Rhinns of Kells and Merrick to the south-west, while on a clear day the Solway Firth, Ailsa Craig and Arran can be seen. At closer proximity, the distinctive valley landscapes that punctuate the uplands are seen to the south-east, where a small part of the Ken unit of Narrow Wooded River Valleys is visible, and to the south-west, where the upper slopes of the Upper Glenkens unit of Upper Dale (Valley) are visible. The upper slopes of Glen Afton can also be seen to the north-east.

6.7.278 There is high visibility of current and predicted baseline wind farms in this view (see wirelines in Figure 6.16b, c, d and e), particularly to the north, north-west and north-east, where there is a large cluster of operational, under construction and consented development including Afton, Hare Hill, Lorg, North Kyle, Over Hill, Pencloe Forest, Sanquhar, Sanquhar Six Community, South Kyle, Whiteside Hill, Windy Rig, and WSI, II and III. More distant and less concentrated development is also seen in other aspects of the view.

6.7.279 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is medium-high. It is a hillwalking location, accessed partly by a core path, with a trig point and lies just within the northern edge of the Galloway Hills RSA. The view also has value in its scenic qualities across the Southern Uplands. However, this is not a recognised viewpoint that is shown on mapping, the full route up the hill is not

accessed by a path, and facilities are not provided for the enjoyment of the view. The immediately apparent influence of wind farms has also affected the character of the view, altering the scenic qualities of the outlook.

6.7.280 The susceptibility to change at this viewpoint is medium-high. The people who gain the view will be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. However, susceptibility to the Proposed Development is moderated by the extensive and close-proximity baseline wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.281 The combination of the medium-high susceptibility to change of the view and its medium-high value results in a **medium-high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.282 The eight turbines in the Proposed Development will be seen to the north-east of this viewpoint from a minimum of 4.01 km away with all of the turbines seen at nearly full height. The Proposed Development is seen as part of a cluster of operational wind farms, including Afton, Hare Hill, South Kyle, Windy Rig, and WSII and III. This cluster also includes the consented site of Pencloe Forest. The elevation of the view ensures that upgraded access tracks and hardstandings will be visible around the turbines, as shown on Figure 6.16g. During the construction phase, tall cranes for turbine erection will be visible, the on-site construction compound/laydown area is likely to be seen between T6 and T8, and small areas of borrow pit excavation may also be visible around T2 and T7. Very small areas of forestry felling around T1 and T2 are theoretically visible but are unlikely to be discernible.

6.7.283 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.284 In the comparative baseline scenario, the magnitude of change on this view will be **medium-high**, for the following reasons.

- The Proposed Development turbines will be seen at close proximity, and will be immediately apparent as tall, moving structures. They are likely to have a greater vertical impact than operational, under construction and consented turbines seen in the view due to their tip height and the appearance of blades and one hub above the skyline.
- The Proposed Development turbines will be larger than other operational, under construction and consented turbines that are apparent in this view, and scale comparisons between the tip height and rotor diameter of Proposed Development turbines and other smaller turbines are likely to be apparent, as are variations in blade rotation speed. The increased turbine scale may also be perceived in relation to other features of the landscape, including landform and woodland blocks.
- The Proposed Development turbines will be of considerably larger scale than the WSI turbines that are currently on the site, with a resultant increased level of visibility and prominence.
- The Proposed Development turbines will add a further set of different turbine dimensions to the wide variety that is already apparent in baseline wind farms.
- Short-term visibility of construction operations and visibility of infrastructure throughout the lifetime of the Proposed Development will contribute to the visual effect of the Proposed Development.

6.7.285 The factors that restrict the magnitude of change to a **medium-high** level in the comparative baseline scenario are as follows:

- The Proposed Development will be seen on the site of WSI, at the centre of a considerably larger cluster of current baseline and predicted baseline wind energy development. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The 36 turbines in WSI wind farm will be replaced by the eight turbines in the Proposed Development, thus reducing visual clutter, removing extensive clustering and overlapping of turbines, and simplifying the image of the overall group of turbines. The Proposed Development will also cover a smaller horizontal extent of the view than WSI, which will further simplify the image of the overall group of turbines.
- The WSI turbines are the smallest in the baseline cluster of wind energy development, with a 53.5 m tip height, and the removal of these turbines will notably reduce the variation between the smallest and largest tip heights, with the next smallest being the 100 m tall WSII turbines. This is beneficial in reducing the visual confusion that can arise from visibility of a wide variety of turbine heights and rotor diameters.
- The Proposed Development lies further away from the viewpoint than several baseline wind farms, which is beneficial in relation to scale comparisons. This is particularly the case with the 125 m blade tip Windy Rig turbines, which are a minimum of approximately 2.5 km from the viewpoint and are seen in the same turbine group as the Proposed Development.
- The turbines in the Proposed Development have a balanced, simple and cohesive image when seen from this viewpoint, ensuring that eye-catching issues such as overlapping and variations in turbine base elevations are avoided.

6.7.286 In the restored baseline scenario, the magnitude of change on the view will increase slightly but will remain medium-high. This increase is due to the introduction of the Proposed Development turbines into a view where the operational WSI turbines do not form part of the baseline, and the benefits of the replacement of the WSI turbines, as described above, are therefore not apparent. However, the context of surrounding wind energy development within which the Proposed Development will be seen prevents the occurrence of a high magnitude of change.

Significance of the Effect

6.7.287 The effect of the Proposed Development on this view will be major/moderate and **significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the medium-high magnitude of change on the view and the medium-high sensitivity of the viewpoint.

Cumulative Effects

6.7.288 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.16 and described in the assessment above. There is also visibility of relevant application stage sites, including Euchanhead, Shepherds' Rig and Sanquhar II, shown on Figure 6.16.

6.7.289 In scenarios of current baseline wind farms and predicted baseline wind farms, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility of the Proposed Development in comparison to that of WSI. The larger turbines are likely to increase the visibility of the Proposed Development in relation to other wind energy development and lead to scale comparisons between developments.

6.7.290 However, in both the comparative and restored baseline scenarios, this cumulative effect arising from the Proposed Development is moderated by the level of operational and under construction development that is already seen in the view, including in the vicinity of the Proposed Development Area itself. This means that wind energy development is already a prevailing characteristic of the baseline view, and particularly the part of the view in which the Proposed Development will be seen. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.291 In the comparative baseline scenario, the cumulative effect is also moderated by factors described above: the replacement of the larger number of turbines (36) in WSI with the smaller number (eight) in the Proposed Development; the smaller horizontal extent of the view occupied by the Proposed Development in comparison with WSI; the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI; and the level of visual integration that the Proposed Development has with operational development, particularly Windy Rig.

6.7.292 When various scenarios of application stage wind farms are considered in addition to the current baseline and predicted baseline sites, the addition of the Proposed Development will not result in any further cumulative effect. This is because of the high level of baseline development which ensures that even when application stage wind farms are also considered, the addition of the Proposed Development would not materially increase the apparent level of wind farm influence.

6.7.293 Moreover, consideration of the application stage site at Sanquhar II could reduce the effect arising from the addition of the Proposed Development, as the turbines in this wind farm are 200 m to blade tip, and their presence would provide a precedent for the Proposed Development turbines in terms of scale.

6.7.294 In all scenarios, the Proposed Development will therefore have a **not significant** cumulative effect. Operational and under construction wind farms are a prevailing characteristic of this baseline view, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Viewpoint 2. Blackcraig Hill

Baseline and Sensitivity

6.7.295 This viewpoint is located at the summit of Blackcraig Hill (700 m AOD), just under 5 km to the north-east of the nearest turbine in the Proposed Development. This hill is a walking destination and a local landmark due to its distinctive landform. It is described in EALWCS as follows "…*Steep-sided hills contain Glen Afton. These hills are higher on the eastern side of Glen Afton and include Hare Hill and the distinctly rugged Blackcraig Hill".*

6.7.296 EALWCS identifies Blackcraig Hill (in conjunction with Craigbraneaoch Rig) as a 'landmark hill' and describes it as follows (Annex E):

> *"At 700 m high, Blackcraig is one of the highest hills in the Southern Uplands lying within East Ayrshire and neighbouring Dumfries and Galloway. It is a rugged open hill with occasional craggy outcrops. It is popular with walkers and offers extensive views from its summit. Operational wind farms lie very close to this hill although it remains a prominent feature particularly in views from the north in the Cumnock area. Craigbraneaoch Rig is closely associated with Blackcraig and has a similar form of smooth heather and grassy steep slopes broken by occasional crags. It provides strong containment to Glen Afton and is largely seen from this valley."*

6.7.297 This viewpoint is within the Hare Hill unit of the East Ayrshire Southern Uplands and the panoramic view extends across the surrounding Southern Uplands, the transition of these uplands through their foothills to the settled lowlands of Ayrshire to the north, and the distant skyline of Arran to the north-west. The view to the west and north-west overlooks Glen Afton and the lower elevated foothills to the north, showing a mixture of upland and lowland elements, patchy forestry and moorland landcover prevail in the uplands and foothills, with restored opencast coal mining landscapes visible around the edges of the North Kyle forest, giving way to improved farmlands and urban settlements in the upland basin around New Cumnock/Cumnock and along the Ayrshire coast. The outlook to the north-east, south-east and south-west is upland in character, extending across vast areas of the Southern Uplands, with their distinctive rounded profiles extending into the distance.

6.7.298 There is high visibility of wind farms in this view (see wirelines in Figure 6.17), particularly to the south and west, where there is a large cluster of operational, under construction and consented development, including Afton, Benbrack Variation, Enoch Hill, North Kyle, Over Hill, Pencloe Forest, South Kyle, Windy Rig, and WSI, II and III. Hare Hill wind farm lies at close proximity to the north-east and more distant and less concentrated development is also seen in other aspects of the view.

6.7.299 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is medium-high. It is a hillwalking location with a trig point, lies within the East Ayrshire SLA and is recognised in EALWCS as a 'landmark hill'. The view also has value in its scenic qualities across the Southern Uplands. However, this is not a recognised viewpoint that is shown on mapping and facilities are not provided for the enjoyment of the view. The immediately apparent influence of wind farms has also affected the character of the view, altering the scenic qualities of the outlook.

6.7.300 The susceptibility to change at this viewpoint is medium-high. The people who gain the view will be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. However, susceptibility to the Proposed Development is moderated by the extensive baseline wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.301 The combination of the medium-high susceptibility to change of the view and its medium-high value results in a **medium-high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.302 The eight turbines in the Proposed Development will be seen to the south-west of this viewpoint from a minimum of 4.86 km away with all of the turbines seen at full height. The Proposed Development will be seen in a cluster of current baseline wind farms, including Afton, South Kyle, Windy Rig and WSII and III. Predicted baseline wind farms including Benbrack Variation, North Kyle, Pencloe Forest and Enoch Hill will add to this cluster.

6.7.303 The elevation of the view ensures that upgraded access tracks and hardstandings will be visible around the turbines, as shown on Figure 6.17g. During the construction phase, tall cranes for turbine erection will be visible, the on-site construction compound/laydown area is likely to be seen in front of T6, and small areas of borrow pit excavation may be visible between T6 and T7 and to the left of T2. A small area of forestry felling around T1 is theoretically visible but is unlikely to be clearly discernible. The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.304 In the comparative baseline scenario, the magnitude of change on this view will be **medium-high**, for the following reasons.

- The Proposed Development turbines will be seen at close proximity, and will be very readily apparent as tall, moving structures. They are seen partly against landform and partly rising above the skyline, which can be eye-catching.
- The Proposed Development turbines will be taller than other operational, under construction and consented turbines that are apparent in this view and scale comparisons between the tip height and rotor diameter of Proposed Development turbines and other smaller turbines are likely to be apparent, as are variations in blade

rotation speed. The increased turbine scale may also be perceived in relation to other features of the landscape, such as landform.

- The Proposed Development turbines will be considerably larger than the WSI turbines that are currently on the site with a resultant increased level of visibility and prominence.
- The Proposed Development turbines will add a further set of different turbine dimensions to the wide variety that is already apparent in baseline wind farms.
- Short-term visibility of construction operations and visibility of infrastructure throughout the lifetime of the Proposed Development will contribute to the visual effect of the Proposed Development.

6.7.305 The factors that restrict the magnitude of change to a **medium-high** level in the comparative baseline scenario are as follows:

- The Proposed Development will be seen on the site of WSI, at the centre of a considerably larger cluster of current baseline and predicted baseline wind energy development. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The Proposed Development will have a high level of integration with Afton wind farm, which extends across the view in front of the Proposed Development. All of the Proposed Development turbines lie well within the horizontal envelope occupied by Afton, and also lie further away from the viewpoint than the Afton turbines, which is beneficial in relation to scale comparisons. The predicted baseline site of Pencloe Forest will also lie closer to the viewpoint than the Proposed Development.
- The 36 turbines in WSI wind farm will be replaced by the eight turbines in the Proposed Development, thus reducing visual clutter, removing extensive clustering and overlapping of turbines, and simplifying the image of the overall group of turbines. The Proposed Development will cover a similar horizontal extent of the view to WSI.
- The WSI turbines are the smallest in the baseline cluster of wind energy development, with a 53.5 m tip height, and the removal of these turbines will notably reduce the variation between the smallest and largest tip heights, with the next smallest being the 100 m tall WSII turbines. This is beneficial in reducing the visual confusion that can arise from visibility of a wide variety of turbine heights and rotor diameters.
- The turbines in the Proposed Development have a balanced, simple and cohesive image when seen from this viewpoint, ensuring that eye-catching issues such as overlapping and variations in turbine base elevations are avoided.

6.7.306 In the restored baseline scenario, the magnitude of change on the view will increase slightly but will remain **medium-high**. This increase is due to the introduction of the Proposed Development turbines into a view where the operational WSI turbines do not form part of the baseline, and the benefits of the replacement of the WSI turbines, as described above, are therefore not apparent. However, the context of surrounding wind energy development within which the Proposed Development will be seen prevents the occurrence of a high magnitude of change.

Significance of the Effect

6.7.307 The effect of the Proposed Development on this view will be major/moderate and **significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the medium-high magnitude of change on the view and the medium-high sensitivity of the viewpoint.

Cumulative Effects

6.7.308 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.17 and described in the assessment above. There is also visibility of relevant application stage sites, including Euchanhead and Sanquhar II, shown on Figure 6.17.

6.7.309 In scenarios of current baseline wind farms and predicted baseline wind farms, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility of the Proposed Development in comparison to that of WSI. The larger turbines is likely to increase the visibility of the Proposed Development in relation to other wind energy development and lead to scale comparisons between developments.

6.7.310 However, in both the comparative and restored baseline scenarios, this cumulative effect arising from the Proposed Development is moderated by the level of operational and under construction development that is already seen in the view, including in the vicinity of the Proposed Development Area itself. This means that wind energy development is already a prevailing characteristic of the baseline view, and particularly the part of the view in which the Proposed Development will be seen. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.311 In the comparative baseline scenario, the cumulative effect is also moderated by factors described above: the replacement of the larger number of turbines (36) in WSI with the smaller number (eight) in the Proposed Development; the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI; and the level of visual integration that the Proposed Development has with operational development, particularly Afton.

6.7.312 When various scenarios of application stage wind farms are considered in addition to the current baseline and predicted baseline sites, the addition of the Proposed Development will not result in any further cumulative effect. This is because of the high level of baseline development which ensures that even when application stage wind farms are also considered, the addition of the Proposed Development would not materially increase the apparent level of wind farm influence.

6.7.313 Consideration of the application stage site at Sanquhar II could reduce the effect arising from the addition of the Proposed Development as the 200 m tall turbines in this wind farm lie at very close proximity to the viewpoint, in front of the Proposed Development, and would reduce the perceived scale of the Proposed Development.

6.7.314 In all scenarios, the Proposed Development will therefore have a **not significant** cumulative effect. Operational and under construction wind farms are a prevailing characteristic of this baseline view, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Viewpoint 3. Water of Ken

Baseline and Sensitivity

6.7.315 This viewpoint is located in the valley of the Water of Ken and has been included to illustrate the type of visibility of the Proposed Development that may be gained from this enclosed valley that runs to the south-east of the Proposed Development.

6.7.316 This viewpoint lies within the Ken unit of the Narrow Wooded River Valleys LCT, and typical characteristics of this landscape can be seen in the view, including the steeply-rising and distinctive, interlocking hills that enclose the valley sides; the flat, pastoral valley floor; varied woodland and forestry patterns; sparse, scattered settlement; and a narrow winding road.

6.7.317 Windy Rig wind farm is visible, rising on the skyline to the west of the viewpoint and, in the comparative baseline scenario, WSI turbines are also visible (see wirelines in Figure 6.18).

6.7.318 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is medium. It is not a recognised viewpoint location, facilities are not provided for the enjoyment of the view, and it is not located within an area that is designated for its scenic value. The Galloway Hills RSA covers part of the Southern Uplands that lie to the west of the Water of Ken, but this is not clearly seen in the outlook. The view does, however, have scenic qualities in its enclosed valley location and there is a sense of place engendered by the nature of the surrounding landscape. The contrast between the relatively complex and textured valley landscape and the large-scale, simple uplands that enclose it is also of value.

6.7.319 The susceptibility to change at this viewpoint is medium. The viewpoint is not on a walking route and does not specifically represent the outlook gained from residential properties. However, people who gain the view may be driving to the car park that lies to the north of the viewpoint, used by walkers who are accessing the two signposted core paths that start/finish at the northern end of the Water of Ken (D&G core paths 215 and 188). The limited level of visible baseline wind energy development has not affected the visual amenity experienced by viewers to the degree where it could reduce the susceptibility of viewers.

6.7.320 The combination of the medium susceptibility to change of the view and its medium value results in a **medium** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.321 Four turbines (two as hubs and two as blades only) in the Proposed Development will be seen from a minimum of 5.08 km away to the north-west of this viewpoint, adjacent to Windy Rig wind farm. Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase.

6.7.322 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.323 In the comparative baseline scenario, the magnitude of change on this view will be **medium** for the following reasons.

- The Proposed Development turbines will be seen at reasonably close proximity on the skyline of the Water of Ken valley. This skyline provides enclosure to the valley and, as noted in DGWLCS, the "*containing horizons of the valleys seen in profile against the sky, are visually prominent*". Visibility of the turbines on this skyline will in turn increase their prominence in the view.
- The Proposed Development will replace WSI with considerably larger turbines and will affect a wider horizontal extent of the skyline with wind energy influence.
- The Proposed Development will be seen in relation to the relatively complex and textured landscape patterns of the foreground valley landscape, and this can lead to scale comparisons.

6.7.324 The factors that restrict the magnitude of change to a **medium** level in the comparative baseline scenario are as follows:

- Visibility of the Proposed Development is limited with parts of only four turbines visible and the towers almost completely screened by landform, which reduces vertical impact.
- The Proposed Development will be seen in place of WSI and adjacent to Windy Rig wind farm. This ensures that it will be seen in a part of the view that is already characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected, leaving the great majority of the view unaffected by wind energy development. Moreover, the Proposed Development and Windy Rig will be seen on the skyline of the same landform, increasing cohesion between the wind farms and containing wind energy development so that it is not perceived as encroaching around the view.
- The skyline landform on which the turbines are seen recedes from the valley and is not one of the closer, more prominent skyline hills. It is also a uniform and relatively simple landform, lacking the more complex and distinctive topography that is seen to the north, and with which the turbines may have a greater scale contrast. The location of turbine bases behind the skyline ensures that the turbines are not perceived as encroaching down in to the smaller-scale valley landscape.
- The Proposed Development and Windy Rig turbines appear to be of similar scale and layout pattern, and have similar visible proportion of turbines, which increases cohesion between the two sites. This level of integration improves upon the currently visible relationship between WSI and Windy Rig, which shows a wide disparity in terms of turbine scale and layout.
- The turbines in the Proposed Development have a balanced, simple and cohesive image that relates well to the landform.

6.7.325 In the restored baseline scenario, the magnitude of change on the view will increase slightly but will remain medium. This increase arises in this scenario (where the WSI site has been restored and the turbines removed) because the Proposed Development will appear on a section of the skyline that is not otherwise affected by turbines and will therefore increase the level of visible wind energy development. However, the context of the adjacent wind energy development at Windy Rig and the integration of the Proposed Development with Windy Rig prevent the occurrence of an increased magnitude of change.

Significance of the Effect

6.7.326 The effect of the Proposed Development on this view will be moderate and **significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the medium magnitude of change on the view and the medium sensitivity of the viewpoint. The combination of magnitude of change and sensitivity can result in an effect that is significant or not significant, and in this case the effect is considered to be significant largely due to the appearance of the Proposed Development on the valley skyline.

Cumulative Effects

6.7.327 There is visibility of WSI and the operational Windy Rig wind farm in this view, and application stage sites at Sanquhar II and Shepherds' Rig, as shown in wirelines on Figure 6.18.

6.7.328 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and Windy Rig as well as leading to an increase in both the horizontal extent of the Proposed Development across the skyline and the level of visibility of the Proposed Development in comparison to that of WSI.

6.7.329 However, this cumulative effect arising from the Proposed Development in the comparative baseline scenario is moderated by the level of integration between the Proposed Development and Windy Rig, as the Proposed Development will have a higher level of integration with Windy Rig than does WSI, and the removal of the disparities between WSI and Windy Rig is beneficial in cumulative terms. In both the comparative baseline scenario and the restored baseline scenario, this level of integration ensures that while the addition of the Proposed Development will increase the apparent scale and extent of wind energy development, the Proposed Development and Windy Rig will appear integrated, and the Proposed Development will not lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.330 There is not a predicted baseline scenario at this viewpoint as there are no consented wind farms visible.

6.7.331 When Sanquhar II and/or Shepherds' Rig wind farms are also considered in scenarios including application stage wind farms, the addition of the Proposed Development will not result in any further cumulative effect. This is

because of its integration with Windy Rig, which ensures that the Proposed Development will not give rise to additional cumulative effects.

6.7.332 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the level of integration between the Proposed Development and Windy Rig wind farm, which ensures that the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Viewpoint 4. Benbrack

Baseline and Sensitivity

6.7.333 This viewpoint is located at the summit of Benbrack (580 m AOD), 7.64 km to the south-west of the nearest turbine in the Proposed Development. Benbrack is on the SUW and D&G core path 446, and is the location of one of the Andy Goldsworthy Striding Arches. It is described in DGWLCS as "*The hills of Benbrack, Cairn and Blackcraig within the Ken unit are also distinctive in their steep-sided slopes, defined summits and tight arc formed at the head of the upper Dalwhat valley".*

6.7.334 This viewpoint lies within the Ken unit of Southern Uplands with Forest LCT, and the generally smooth, rounded hills of the various Southern Uplands LCTs – some forested and some open and exposed - can be seen around the viewpoint. The upper slopes of the Water of Ken valley can be seen to the south-west, beyond which rises the massive landform of the Carsphairn Southern Uplands. Slightly further to the south is the broader basin of the Upper Glenkens unit of Upper Dale (Valley) are visible, enclosed to the west by the Rhinns of Kells.

6.7.335 There is high visibility of wind farms in this view (see wirelines in Figure 6.19), particularly to the north and north-west, where there is a large cluster of operational, under construction and consented development (including Afton, Lorg, Pencloe Forest, Windy Rig, and WSI, II and III, and to the south-east, where Wether Hill wind farm lies. More distant and less concentrated development is also seen in other aspects of the view.

6.7.336 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is high. It is a recognised and mapped hillwalking location on the SUW and core path 446, and is notable for the Striding Arch, which increases its attraction to walkers. While the immediately apparent influence of wind farms has affected the character of the view, the recognised value of the location in itself is sufficient to retain a high value.

6.7.337 The susceptibility to change at this viewpoint is medium-high. The people who gain the view will be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. However, susceptibility to the Proposed Development is moderated by the extensive baseline wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.338 The combination of the medium-high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.339 The eight turbines in the Proposed Development will be seen to the north-west of this viewpoint from a minimum of 7.64 km away with seven turbines seen as hubs and one as a blade only. All of the lower towers are screened by landform. The Proposed Development is seen in the context of a group of current baseline development, including Windy Rig and WSII, which are adjacent, and Afton, slightly further to the north-east.

6.7.340 Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase.

6.7.341 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.342 In the comparative baseline scenario, the magnitude of change on this view will be **medium-low**, for the following reasons.

- The Proposed Development turbines will be seen at close to mid-range, and will be readily apparent as tall, moving structures, with the two overlapping turbines potentially eye-catching. The turbines will be seen on a domed skyline and this can increase the prominence of the turbines that are seen on the higher part of the landform.
- The Proposed Development turbines are taller than other turbines that are apparent in this view and scale comparisons between tip height and rotor diameter are likely to be apparent, as are variations in blade rotation speed. The increased turbine scale may also be perceived in relation to other features of the landscape, such as landform.
- The Proposed Development turbines will be considerably larger than the WSI turbines that are currently seen in the view, with a resultant increased level of visibility and prominence.

6.7.343 The factors that restrict the magnitude of change to a **medium-low** level in the comparative baseline scenario are as follows:

- The Proposed Development will be seen on the site of WSI and within a cluster of current baseline wind energy development. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The Proposed Development lies further away from the viewpoint than several current and predicted baseline wind farms, which is beneficial in relation to scale comparisons. This is particularly the case with the Windy Rig turbines, which are seen in the same turbine group as the Proposed Development. Because of this, the Proposed Development and Windy Rig turbines are perceived as being of similar scale as well as having a similar layout pattern, and this increases cohesion between the two sites. This level of integration improves upon the currently visible relationship between WSI and Windy Rig, which shows a wide disparity in terms of turbine scale and layout.
- The 36 turbines in WSI wind farm will be replaced by the eight turbines in the Proposed Development, thus reducing visual clutter, removing extensive clustering and overlapping of turbines, and simplifying the image of the overall group of turbines.
- The WSI turbines are the smallest in the baseline cluster of wind energy development, with a 53.5 m tip height, and the removal of these turbines will notably reduce the variation between the smallest and largest tip heights, with the next smallest being the 100 m tall WSII turbines. This is beneficial in reducing the visual confusion that can arise from visibility of a wide variety of turbine heights and rotor diameters.
- The location of the Proposed Development turbine bases behind the skyline ensures that the turbines are not perceived as encroaching down in to the smaller-scale valley landscape of the Water of Ken.

6.7.344 In the restored baseline scenario, the magnitude of change on the view will be **medium**. This increase arises in this scenario (where the WSI site has been restored and the turbines removed) because the Proposed Development will appear on a section of the skyline that is not otherwise affected by turbines and will therefore increase the level of visible wind energy development and provide more continuous development along the skyline.

Significance of the Effect

6.7.345 The effect of the Proposed Development on this view will be moderate in the comparative baseline scenario, moderate/major in the restored baseline scenario, and **significant** in both scenarios. This is due to a combination of the factors that lead to the medium-low or medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Effects

6.7.346 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.19 and described in the assessment above. There is also visibility of relevant application stage sites, including Euchanhead, Shepherds' Rig and Sanquhar II, shown on Figure 6.19.

6.7.347 In scenarios of current baseline wind farms and predicted baseline wind farms, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility of the Proposed Development in comparison to that of WSI. The larger turbines are likely to increase the visibility of the Proposed Development in relation to other wind energy development and lead to scale comparisons between developments.

6.7.348 However, in both the comparative and restored baseline scenarios, this cumulative effect arising from the Proposed Development is moderated by the level of operational and under construction development that is already seen in the view, including, in the comparative baseline scenario, on the Proposed Development Area itself. This means that wind energy development is already a prevailing characteristic of the baseline view, and particularly the part of the view in which the Proposed Development will be seen. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.349 In the comparative baseline scenario, the cumulative effect is also moderated by the replacement of the larger number of turbines in WSI with the smaller number in the Proposed Development; the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI; and the level of visual integration that the Proposed Development has with operational development, particularly Windy Rig.

6.7.350 When various scenarios of application stage wind farms are considered in addition to the current baseline and predicted baseline sites, the addition of the Proposed Development will not result in any further cumulative effect. This is because of the high level of baseline development, which ensures that even when application stage wind farms are also considered, the addition of the Proposed Development would not materially increase the apparent level of wind farm influence.

6.7.351 Moreover, consideration of the application stage sites at Euchanhead and Sanquhar II would reduce the effect arising from the addition of the Proposed Development, as the turbines in these wind farms are 200/230 m to blade tip and lie at close proximity of the viewpoint, and their presence would both provide a precedent for the Proposed Development turbines in terms of scale and reduce the perceived scale of the Proposed Development.

6.7.352 In all scenarios, the Proposed Development will therefore have a **not significant** cumulative effect. Operational and under construction wind farms are a prevailing characteristic of this baseline view, and the addition of the Proposed Development to these will not materially alter this situation. When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Viewpoint 5. New Cumnock

Baseline and Sensitivity

6.7.353 This viewpoint is located on the A76 as it passes through New Cumnock. The road is elevated as it passes over the railway line (with the railway station lying just to the north-west of the viewpoint) and a long, open view to the south, towards the Southern Uplands, is gained. This viewpoint is included to represent views gained by road-users on the A76, pedestrians, and residents of nearby properties.

6.7.354 This viewpoint lies within the Upland Basin LCT with a backdrop of Southern Uplands. EALWCS notes the following in relation to the enclosure of the Upland Basin by Southern Uplands:

> *"The Upland Basin (15) forms a low-lying landscape which is strongly contained by surrounding upland character types. The steep-sided Southern Uplands (20a), cut by the deep cleft of Afton Glen, form a particularly dramatic juxtaposition with this relatively simple basin…Views from the A76 when travelling southwards and from footpaths, golf course in the Lochside Hotel area focus on the Southern Uplands and on the wind farms of Hare Hill and Afton sited on these hills…The operational Hare Hill and Afton wind farms are prominently sited on a pronounced hill and on the edge of the cleft of Afton Glen."*

6.7.355 While it does provide a prominent enclosing skyline, this periphery of Southern Uplands is relatively gentle and does not appear as the massive landform that is seen elsewhere. The built edge of New Cumnock extends up the sides of the Upland Basin where it merges with Upland River Valley LCT, and the transition between the basin and valley landscapes with the Southern Uplands is less abrupt than it appears elsewhere.

6.7.356 There is high visibility of wind farms in this view (see wirelines in Figure 6.20), particularly to the south-east, south and south-west, where there are three groups of baseline development: Hare Hill (operational); Afton (operational), WSI, II and III (operational and consented) and Pencloe Forest (consented); and Enoch Hill (consented) respectively.

6.7.357 There is very limited visibility of WSI from this viewpoint and as a result, the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are effectively the same. The two baseline scenarios are therefore assessed together for this viewpoint, with no distinction made between them.

6.7.358 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The value of this view is medium; it is not a recognised or signposted outlook and does not lie within an area that is designated for its scenic value. It is, however a view that will be gained by a large number of people and the outlook from the built-up area towards the Southern Uplands skyline has value in its illustration of the upland setting of the village and the contrast of landscape and landform patterns. Furthermore, the middle-ground and skyline of the view is covered by the East Ayrshire SLA.

6.7.359 The susceptibility to change of viewers is high as similar views may be gained by local residents. In this case, the reduced susceptibility that can arise where extensive wind energy development is already apparent and has affected the baseline amenity of the viewer, is overridden by the high susceptibility of the residential nature of some viewers.

6.7.360 The residential nature of some viewers also ensures that the overall sensitivity of the view/viewpoint is **high**, despite the medium value of the view.

Magnitude of Change

6.7.361 The eight turbines in the Proposed Development will be seen to the south of this viewpoint from a minimum of 10.33 km away with seven turbines seen as hubs and one as a blade only. All of the lower towers are screened

by landform. The Proposed Development is seen in conjunction with Afton wind farm, which lies closer to the viewpoint at approximately 8.2 km away.

6.7.362 Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase. There is very limited visibility of operational and under construction wind farms has at Windy Standard II; higher visibility of Afton in the same part of the view as the Proposed Development; and, slightly further to the west, visibility of South Kyle from a minimum of approximately 9.3 km away. The Proposed Development will have a **medium-low** magnitude of change, for the following reasons.

- The Proposed Development turbines will be seen at mid-range as tall, moving structures on the skyline, and the Proposed Development will effectively form a new feature on the Proposed Development Area. This skyline provides notable enclosure to the basin and visibility of the turbines on this skyline will in turn increase their prominence in the view.
- The Proposed Development will be seen in conjunction with Afton wind farm, and while the Proposed Development turbines will not rise above the tip height of the Afton turbines, differences in rotor diameter and rotation speed may be discernible. The increased turbine scale may also be perceived in relation to other features of the landscape, such as landform.
- The Proposed Development will also extend across the skyline to the west of Afton, thus increasing the extent of the developed skyline.
- The Proposed Development will be seen in the line of view of southbound travellers/pedestrians on the A76 and may also be seen in the line of view from some houses in the settlement.

6.7.363 The factors that restrict the magnitude of change to a **medium-low** level are as follows:

- The Proposed Development will be seen in association with other current baseline wind farm development, most notably Afton (which, as noted in EALWCS, is prominent on the skyline), with South Kyle also seen further to the west. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- While the Proposed Development will extend wind energy development across the skyline beyond the envelope of Afton, this increase will cover less than 6º of the full, open view available, and the combination of Afton and the Proposed Development will cover a total of approximately 8º of the full view. This limited extent of the affected skyline combined with the distance of the Proposed Development from the viewpoint (over 10 km) ensures that the Proposed Development will not form an immediately apparent new feature in the view.
- The Proposed Development lies further away from the viewpoint than Afton, which is beneficial in relation to scale comparisons. Because of this, the Proposed Development turbines appear of a similar height as the Afton turbines despite differences in turbine dimensions, and this increases cohesion between the two sites so that they will be perceived as a single wind farm. The Proposed Development is also seen on the same landform as Afton, further increasing cohesion.
- The location of the Proposed Development turbine bases behind the skyline ensures that the turbines are not perceived as encroaching down into the basin, and reduces their vertical impact on the skyline.

6.7.364 When consented wind farms are also considered, the level of development is considerably higher, with Pencloe Forest wind farm extending across the skyline in front of the Proposed Development. The closer proximity of Pencloe Forest ensures that its turbines appear to be of the same scale, or larger, than the Proposed Development, and the Proposed Development will appear as a fully integrated part of the same development. This ensures that when consented wind farms are included, the magnitude of change arising from the Proposed Development will reduce to a **low** level.

Significance of the Effect

6.7.365 The effect of the Proposed Development on this view will vary dependent on the wind farm development scenario. When operational and under construction wind farms are considered, the effect of the Proposed Development will be moderate and **significant** due to a combination of the factors that lead to the medium-low magnitude of change on the view and the high sensitivity of the viewpoint. This combination of magnitude of change and sensitivity can result in an effect that is significant or not significant; in this case the effect is considered to be significant largely due to the increased extent of wind energy development on the skyline that will result from the Proposed Development and the difference in appearance between the Proposed Development turbines and Afton turbines. However, when consented wind farms are considered, the effect will be **not significant** due to the reduction in the magnitude of change that arises from the presence of Pencloe Forest wind farm.

Cumulative Effects

6.7.366 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.20 and described in the assessment above. There is also visibility of relevant application stage sites, including Greenburn, also shown on Figure 6.20.

6.7.367 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on this view, and the Proposed Development will introduce new wind energy development into the view. However, the cumulative effect arising from the Proposed Development is moderated by the level of integration between the Proposed Development and Afton, as described above, as well as the nearby presence of South Kyle and Hare Hill.

6.7.368 This integration ensures that while the addition of the Proposed Development will increase the apparent scale and extent of wind energy development, the Proposed Development and Afton will appear integrated, and the Proposed Development will not lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.369 In the predicted baseline scenario, the closer proximity of Pencloe Forest, as described above, ensures that the addition of the Proposed Development will not result in any further cumulative effect.

6.7.370 When scenarios including application stage wind farms are considered, the addition of the Proposed Development will not result in any further cumulative effect. This is because of its integration with Afton and, in the predicted baseline scenario, Pencloe Forest, which ensures that the Proposed Development will not give rise to additional cumulative effects.

6.7.371 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the level of integration between the Proposed Development and Afton wind farm and, when consented wind farms are also considered, Pencloe Forest wind farm, which ensures that the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Viewpoint 6. B729 Carroch Bridge to Guttery Glen

Baseline and Sensitivity

6.7.372 This viewpoint is located on the B729 as it passes through the valley of the Stroanferran Burn near Guttery Glen. Visibility from roads/easily accessible locations to the south-east of the Proposed Development is limited, and this slightly elevated road provides a relatively rare viewpoint in this area. The view will be gained by road-users.

6.7.373 This viewpoint lies towards the southern periphery of the Ken unit of Southern Uplands with Forest LCT, close to its boundary with Upper Dale (Valley) and Foothills with Forest LCTs, and a transitional character is apparent in the relatively complex landscape patterns of field boundaries, grassland, woodland and wood pole lines. The distinctive, massive hills that form the skyline to the north-west are Cairnsmore of Carsphairn (to the left), Green Hill and Moorbrock Hill, all of which lie within the Carsphairn unit of Southern Uplands LCT.

6.7.374 Windy Rig wind farm is visible, rising on the skyline to the west of the viewpoint. Theoretical visibility of Cornharrow, Lorg and Wether Hill to the north and north-east of the viewpoint is screened by woodland and forestry. There is limited visibility of WSI (see wirelines in Figure 6.21).

6.7.375 As a result of the limited visibility of WSI from this viewpoint, the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are effectively the same. The two baseline scenarios are therefore assessed together for this viewpoint, with no distinction made between them.

6.7.376 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The value of this view is medium. It is not a recognised viewpoint location, facilities are not provided for the enjoyment of the view, and it is not located within an area that is designated for its scenic value. The view does, however, have scenic qualities and a sense of place, and there is value in the contrast between the quite complex and textured foreground landscape and the massive, elevated upland backdrop. The Galloway Hills RSA covers the backdrop hills and this also adds value.

6.7.377 The susceptibility to change at this viewpoint is medium-low. The viewpoint is not on a specific walking or cycling route and viewers will be road-users. The limited level of visible baseline wind energy development has not affected the visual amenity experienced by viewers to the degree where it would reduce the susceptibility of viewers.

6.7.378 The combination of the medium-low susceptibility to change of the view and its medium value results in a **medium** sensitivity for this viewpoint.

Magnitude of Change

6.7.379 Four turbines (three as hubs and one as a blade only) in the Proposed Development will be seen from a minimum of 10.46 km away to the north-west of this viewpoint. The Proposed Development will be seen within the horizontal envelope of Windy Rig wind farm, which lies 8.4 km to the north-west of the viewpoint.

6.7.380 Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase.

6.7.381 The magnitude of change on this view will be **medium-low** for the following reasons.

- The Proposed Development turbines will be seen at mid-range on the skyline, in the direct line of view for westbound road-users.
- The Proposed Development will be seen in relation to the relatively complex and textured landscape patterns of the foreground transitional landscape, and this can lead to scale comparisons.

6.7.382 The factors that restrict the magnitude of change to a **medium-low** level are as follows:

- The Proposed Development will be seen entirely within the horizontal envelope covered by Windy Rig wind farm, ensuring that it will be seen in a part of the view that is already characterised by wind energy development and will not extend wind energy influence to an otherwise unaffected part of the view.
- The skyline landform on which the Proposed Development and Windy Rig is a uniform and relatively simple landform, lacking the more complex and distinctive topography that is seen to the west, and with which the turbines may have a greater scale contrast. The location of turbine bases behind the skyline ensures that the turbines are not perceived as encroaching down in to the smaller-scale foreground landscape.
- The Proposed Development lies further away from the viewpoint than Windy Rig, which is beneficial in relation to scale comparisons. The Proposed Development and Windy Rig turbines appear to be of similar scale and layout pattern, and have similar visible proportion of turbines; this increases cohesion between the two sites so that they are perceived as a single wind farm.
- This view will be gained briefly and by moving viewers from a distance of over 10 km away.

Significance of the Effect

6.7.383 The effect of the Proposed Development on this view will be moderate/minor and **not significant** in both the comparative baseline scenario and restored baseline scenario. This is due to a combination of the factors that lead to the medium-low magnitude of change on the view and the medium sensitivity of the viewpoint.

Cumulative Effects

6.7.384 There is visibility of the operational Windy Rig wind farm in this view. Theoretical visibility of the operational Wether Hill, consented sites at Cornharrow and Lorg, and the application stage site at Sanquhar II is screened by woodland and forestry, including young deciduous woodland that is unlikely to be removed during the lifetime of the Proposed Development. Visibility of WSI is limited.

6.7.385 In the scenario of current baseline wind farms, the addition of the Proposed Development will have some cumulative effect on this view due to the addition of further turbines to the skyline.

6.7.386 However, this cumulative effect arising from the Proposed Development is moderated by the high level of integration between the Proposed Development and Windy Rig in terms of scale, dimensions, layout, and landscape setting. This level of integration ensures that while the addition of the Proposed Development will increase the apparent scale of wind energy development, the Proposed Development and Windy Rig will appear as a single development, and the Proposed Development will not lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.387 There are not scenarios of predicted baseline or application stage wind farms at this viewpoint as the theoretically visible consented and application stage wind farms are screened by woodland.

6.7.388 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the level of integration between the Proposed Development and Windy Rig wind farm, which ensures that the Proposed Development will not appear as a separate wind farm but as part of one larger development. Other consented and application stage wind farms with theoretical visibility are screened by woodland.

Viewpoint 7. Minor road near Auchincross

Baseline and Sensitivity

6.7.389 This elevated viewpoint is located on a minor road some 4.5 km to the west of New Cumnock. It has been included to illustrate the appearance of the Proposed Development as it will be seen across the Upland Basin LCT (this LCT covers the headwaters of the River Nith). The outlook is similar to that seen at Viewpoint 5 (New Cumnock), which is also within the Upland Basin LCT, but the less built-up foreground and more elevated viewpoint location ensure that the landscape character and patterns of are more apparent. Here, the agricultural land use of the basin is clearly apparent, and the dispersed settlement along the B741, including the village of Burnside, can be seen on the southern side of the basin where the ground starts to rise up into the Southern Uplands. New Cumnock is visible to the east with the Upland River Valley LCT of the Nith extending further eastwards beyond the settlement. There is extensive open-cast mining in this area although this cannot be seen from this specific viewpoint due to vegetation screening.

6.7.390 There is high visibility of wind farms in this view (see wirelines in Figure 6.22), particularly to the south and south-east, where the operational and consented sites at Hare Hill, Afton, WSI, II and III, Pencloe Forest, Enoch Hill and South Kyle extend across the enclosing Southern Uplands skyline.

6.7.391 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is medium-low; it is not a recognised or signposted outlook, does not lie within an area that is designated for

its scenic value, and the influence of wind farms has affected the scenic qualities of the view. It does, however, overlook the East Ayrshire SLA and the view across the basin towards the hill skyline has some value in the contrast of landscape and landform patterns.

6.7.392 The susceptibility to change at this viewpoint is medium-low. The viewpoint is not on a specific walking or cycling route and viewers will be road-users. Susceptibility to the Proposed Development is also moderated by the extensive baseline wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.393 The combination of the medium-low susceptibility to change of the view and its medium-low value results in a **medium-low** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.394 The eight turbines in the Proposed Development will be seen to the south of this viewpoint from a minimum of 10.80 km away with all hubs visible.

6.7.395 Short sections of upgraded access tracks and areas of hardstandings are theoretically visible in the vicinity of T3, T7 and T8. These will, however, have a very limited effect on the view, seen from a distance of over 10 km away. Tall cranes for turbine erection will also be visible during the short-term construction phase.

6.7.396 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.397 The Proposed Development lies between Afton wind farm in the east and South Kyle in the west, and in front of Windy Rig, which has limited visibility. There is very limited visibility of WSII and III, while Hare Hill is visible further away to the south-east. In the comparative baseline scenario, there is high visibility of WSI. In the comparative baseline scenario, the Proposed Development will have a **medium** magnitude of change, for the following reasons.

- The Proposed Development turbines will be seen at mid-range as tall, moving structures on the skyline, forming a clearly visible group of larger turbines in a part of the view that is currently characterised by the smaller WSI turbines and limited visibility of Windy Rig and WSII turbines. This skyline provides notable enclosure to the basin and visibility of the turbines on this skyline will in turn increase their prominence in the view. Separation will be retained between the Proposed Development, Afton and South Kyle wind farms, and the Proposed Development will result in a third group of tall turbines on the skyline.
- The Proposed Development will be seen in place of WSI, and the turbines will be considerably larger than the WSI turbines that are currently on the site with a resultant increased level of visibility and prominence.
- The Proposed Development will be seen in direct conjunction with limited visibility of Windy Rig and WSII wind farms, and differences in rotor diameter and rotation speed may be discernible as well as variation in the visible proportion of turbines. The increased turbine scale may also be perceived in relation to other features of the landscape, such as landform.

6.7.398 The factors that restrict the magnitude of change to a **medium** level in the comparative baseline scenario are as follows:

- The Proposed Development will be seen on the site of WSI, in direct association with current baseline wind energy development at Windy Rig and WSII, and between current baseline sites at Afton and South Kyle. Hare Hill is also seen on the skyline, further away. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The Proposed Development lies further away from the viewpoint than Afton, Hare Hill and South Kyle, which is beneficial in relation to scale comparisons. As a result, the Proposed Development turbines can be perceived as being of similar scale to Afton and smaller than South Kyle, as well as having a similar layout pattern and landscape setting to both sites. This increases cohesion between the Proposed Development and the current baseline sites and improves upon the currently visible relationship between WSI, Afton and South Kyle, which shows a wide disparity in terms of turbine scale and layout.
- The 36 turbines in WSI wind farm will be replaced by the eight turbines in the Proposed Development, thus reducing visual clutter, removing extensive clustering and overlapping of turbines, and simplifying the image of the overall group of turbines. The Proposed Development will also cover a smaller horizontal extent of the view than WSI.
- The WSI turbines are the smallest in the baseline cluster of wind energy development, with a 53.5 m tip height, and the removal of these turbines will notably reduce the variation between the smallest and largest tip heights, with the next smallest being the 100 m tall WSII turbines. This is beneficial in reducing the visual confusion that can arise from visibility of a wide variety of turbine heights and rotor diameters.
- The limited extent of the skyline that will be affected by the Proposed Development (approximately 7º) combined with the distance of the Proposed Development from the viewpoint (over 10.5 km) ensures that the Proposed Development will not form an immediately apparent feature in the view.

6.7.399 In the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks), the magnitude of change on the view will increase slightly but will remain medium. This increase is due to the introduction of the Proposed Development turbines into a view where the operational WSI turbines do not form part of the baseline, and the benefits of the replacement of the WSI turbines are therefore not apparent.

6.7.400 When consented wind farms are considered, the level of development to which the Proposed Development is added is considerably higher, with Pencloe Forest wind farm extending across the skyline in front of both Afton and the Proposed Development, creating one larger wind farm cluster. The Proposed Development will beneficially infill a gap between groups of Pencloe Forest turbines, and the closer proximity of Pencloe Forest ensures that its turbines appear to be of the same scale, or larger, than the Proposed Development, so that the Proposed Development will appear as a fully integrated part of the same development. This ensures that when consented sites are considered, the magnitude of change arising from the Proposed Development will reduce to a **medium-low** level.

Significance of the Effect

6.7.401 The effect of the Proposed Development on this view will vary dependent on the wind farm development scenario. When the Proposed Development is added to a scenario of operational and under construction sites, the effect of the Proposed Development will be moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the medium-low sensitivity of the viewpoint. However, when consented sites are also considered, the effect will be **not significant** due to the reduction in the magnitude of change that arises from the presence of Pencloe Forest Wind Farm. This will arise in both the comparative baseline and restored baseline scenarios.

Cumulative Effects

6.7.402 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.22 and described in the assessment above. There is also visibility of relevant application stage sites, including Euchanhead, Greenburn and Sanquhar II, shown on Figures 6.22.

6.7.403 In the current baseline scenario of operational and under construction wind farms, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger

turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility of the Proposed Development in comparison to that of WSI. The larger turbines can increase the visibility of the Proposed Development in relation to other wind energy development and lead to scale comparisons between developments. This is particularly the case in this view, as WSI and to a lesser extent, Windy Rig and WSII, form a separate cluster of development in the current baseline scenario, and the Proposed Development will form this cluster when it replaces WSI.

6.7.404 However, in both the comparative and restored baseline scenarios, this cumulative effect arising from the Proposed Development is moderated by the baseline visibility of Windy Rig and WSII, which ensures that wind energy development is already a prevailing characteristic of the part of the view in which the Proposed Development will be seen, and it will not introduce a new cluster of development. The nearby wind farms at Afton and South Kyle increase the presence of wind farms as a prevailing characteristic of the view. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.405 In the comparative baseline scenario, the cumulative effect is also moderated by the replacement of the 36 turbines in WSI with the eight in the Proposed Development; the smaller horizontal extent of the view occupied by the Proposed Development in comparison with WSI; the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI; and the level of integration that the Proposed Development has with operational development.

6.7.406 In the predicted baseline scenario, the extensive and close-proximity visibility of Pencloe Forest ensures that the addition of the Proposed Development will not result in any further cumulative effect. Pencloe Forest extends across the skyline in front of both Afton and the Proposed Development, creating one larger wind farm cluster, and moreover the Proposed Development will beneficially infill a gap between groups of Pencloe Forest turbines. The closer proximity of Pencloe Forest ensures that its turbines appear to be of the same scale, or larger, than the Proposed Development, and the Proposed Development will appear as a fully integrated part of the same development.

6.7.407 When wind farms including Euchanhead and/or Greenburn and/or Sanquhar II wind farms are also considered in scenarios including application stage wind farms, the addition of the Proposed Development will not result in any further cumulative effect. This is because of its location in the same part of the view as sites at WSII and Windy Rig, which ensures that it will not introduce a new cluster of development, and, in the predicted baseline scenario, its integration with Pencloe Forest.

6.7.408 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is because operational, under construction and consented wind farms are a prevailing characteristic of this baseline view, and the addition of the Proposed Development to these will not materially alter this situation.,

Viewpoint 8. Loch Doon

Baseline and Sensitivity

6.7.409 This viewpoint is located on the western side of Loch Doon, on the dead-end minor road (also East Ayrshire core path DV11) that provides access to Loch Doon Castle as well as a camp site, a number of car parks and recreational facilities such as waymarked walks. The viewpoint is located just within Galloway Forest Park, and the view will be gained by people visiting Loch Doon for recreational purposes, on foot, on bicycles or in cars.

6.7.410 This viewpoint lies within the Rugged Uplands with Lochs and Forest LCT and displays the typical characteristics of the eastern part of this LCT, with its low-lying, complex and textured loch landscape. The more elevated, exposed and rugged parts of this LCT lie further to the south and west, where there is a strong sense of seclusion. Here, the high level of accessibility and well-used road and paths ensure a wide range of recreational use is enjoyed by many people.

6.7.411 There is high visibility of current and predicted baseline wind farms in this view (see wirelines in Figure 6.23), particularly to the east and north-east, where there is a large cluster of operational, under construction and consented development, including Benbrack Variation, South Kyle, Windy Rig and WSI, II and III.

6.7.412 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is high. It lies within and overlooks the East Ayrshire SLA as well as part of the Galloway Hills SLA, is on a popular recreational route and core path, and has scenic qualities and sense of place of a type that is unusual in East Ayrshire. While the immediately apparent influence of wind farms has affected the character of the view, the recognised recreational value of the location in itself is sufficient to retain a high value.

6.7.413 The susceptibility to change at this viewpoint is medium-high. The people who gain the view will be walkers and other road-users who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. However, susceptibility to the Proposed Development is moderated by the extensive baseline wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.414 The combination of the medium-high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.415 Six of the turbines in the Proposed Development will be seen to the east-north-east of this viewpoint from a minimum of 12.64 km away with all hubs visible. The Proposed Development is seen in conjunction with WSII and III, which lie closer to the viewpoint at a minimum of 8.8 km away, as well as Windy Rig and, with some separation, South Kyle. The consented sites at Benbrack Variation and WSIII extend across the skyline, partly in front of the Proposed Development, at a minimum of approximately 5.5 km and 8.8 km away respectively.

6.7.416 Short sections of upgraded access tracks and areas of hardstandings are theoretically visible in the vicinity of T3 and T4 but are unlikely to be clearly discernible at a distance of over 12 km away. Tall cranes for turbine erection will be visible during the short-term construction phase.

6.7.417 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.418 In the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), this view has high visibility of WSI, II and III; moderate visibility of Windy Rig; and limited but close proximity visibility of South Kyle. In this scenario, the Proposed Development will have a **medium-low** magnitude of change, for the following reasons.

- The Proposed Development turbines will be seen at mid-range as tall, moving structures on the skyline, forming a group of larger turbines in a part of the view that is currently characterised by WSII turbines and the notably smaller WSI turbines. This skyline provides enclosure to the loch basin and visibility of the turbines on this skyline will in turn increase their prominence in the view.
- The Proposed Development will be seen in place of WSI, which has a high level of visibility in this view. The Proposed Development turbines will be considerably larger than the WSI turbines that are currently on the site, with a resultant increased level of visibility and prominence.

- The Proposed Development will be seen in direct conjunction with WSII turbines, and differences in rotor diameter and rotation speed are likely to be discernible. The increased turbine scale may also be perceived in relation to other features of the landscape, such as landform.

6.7.419 The factors that restrict the magnitude of change to a **medium-low** level in the comparative baseline scenario are as follows:

- The Proposed Development will be seen on the site of the highly visible WSI, in direct association with WSII, and with nearby sites at Windy Rig and South Kyle. Hare Hill is also seen on the skyline, further away. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The Proposed Development lies further away from the viewpoint than South Kyle, Windy Rig and WSII, which is beneficial in relation to scale comparisons. This in turn improves upon the current scale relationship between WSI and South Kyle, Windy Rig, and WSII, which shows a wide disparity in terms of turbine scale and layout.
- The 36 turbines in WSI wind farm will be replaced by the eight turbines in the Proposed Development, thus reducing visual clutter, removing extensive clustering and overlapping of turbines, and simplifying the image of the overall group of turbines. The Proposed Development will cover a similar horizontal extent of the view as WSI.
- The WSI turbines are the smallest in the baseline cluster of wind energy development, with a 53.5 m tip height, and the removal of these turbines will notably reduce the variation between the smallest and largest tip heights, with the next smallest being the 100 m tall WSII turbines. This is beneficial in reducing the visual confusion that can arise from visibility of a wide variety of turbine heights and rotor diameters.
- The limited extent of the skyline that will be affected by the Proposed Development (approximately 6º) combined with the distance of the Proposed Development from the viewpoint (over 12.5 km) ensures that the Proposed Development will not form a very readily apparent feature in the view.

6.7.420 In the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline), the magnitude of change on the view will increase slightly but will remain medium-low. This increase is due to the introduction of the Proposed Development turbines into a view where the operational WSI turbines do not form part of the baseline, and the benefits of the replacement of the WSI turbines, as described above, are therefore not apparent. However, the context of surrounding wind energy development within which the Proposed Development will be seen prevents the occurrence of a higher magnitude of change.

6.7.421 When consented sites are also considered, the level of development is notably higher with Benbrack Variation, in particular, and to a lesser extent WSIII, extending across the skyline, overlapping with the Proposed Development. The closer proximity of Benbrack Variation ensures that its turbines appear larger than the Proposed Development, and the Proposed Development will appear behind Benbrack Variation, perceived as part of the same development as Windy Rig and WSII and III. This ensures that when consented sites are considered, the magnitude of change arising from the Proposed Development will reduce to a **low** level.

Significance of the Effect

6.7.422 The effect of the Proposed Development on this view will be moderate and **not significant** in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. This combination of sensitivity and magnitude of change can lead to an effect that is either significant or not significant; in this case it is assessed as not significant due to the appearance of the Proposed Development in a part of the view that is characterised by baseline wind energy development. When consented sites are also considered, the magnitude of change will reduce to a low level and the effect will remain **not significant**.

Cumulative Effects

6.7.423 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.23 and described in the assessment above. There is negligible theoretical visibility of application stage sites at Euchanhead and Sanquhar II, shown on Figure 6.23.

6.7.424 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility of the Proposed Development in comparison to that of WSI. The larger turbines are likely to increase the visibility of the Proposed Development in relation to other wind energy development and lead to scale comparisons between developments.

6.7.425 However, in both the comparative and restored baseline scenarios, the cumulative effect arising from the Proposed Development is moderated by the operational and under construction wind energy development that is seen in the view, including Windy Rig, South Kyle, and WSII. This ensures that while the addition of the Proposed Development will increase the apparent scale of wind energy development, it will not in itself lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.426 In the comparative baseline scenario, the cumulative effect is also moderated by the replacement of the 36 turbines in WSI with the eight in the Proposed Development and the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI.

6.7.427 In the predicted baseline scenario, the level of visibility of the consented WSIII and Benbrack Variation, as described above, ensures that the addition of the Proposed Development will not result in any further cumulative effect. The negligible visibility of Euchanhead and Sanquhar II wind farms ensures that there are no scenarios including application stage wind farms.

6.7.428 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the level of wind farm development and, in the predicted baseline scenario, the integration between the Proposed Development, Benbrack Variation and WSIII wind farms.

Viewpoint 9. A76 at Cumnock

Baseline and Sensitivity

6.7.429 This viewpoint is located at a layby on the A76 just to the south of Cumnock and is included to represent views that may be gained by road-users, including people who stop in the layby.

6.7.430 This viewpoint lies within the East Ayrshire Lowlands LCT and shows the typical characteristics (as noted in EALWCS) of "*gently rolling landform…with the strongly enclosed field pattern and regularly spaced dispersed small farms, houses and woodlands to create a small to medium scale landscape, dependent on the complexity of landform and land cover pattern*". While this is a settled, developed and accessible landscape it does retain an agricultural character outwith urban areas. The rolling hills within the lowlands ensure that the skyline of Southern Uplands is less distinctive here than in other views from the north, with the lowlands landscape merging into the distant hills without an abrupt or obvious transition.

6.7.431 There is high visibility of operational, under construction and consented wind farms in this view (see wirelines in Figure 6.24), particularly to the south, where Afton, WSI and II, Pencloe Forest, Enoch Hill and South Kyle extend across the Southern Uplands skyline.

6.7.432 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access

tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is medium; it is not a recognised or signposted outlook, does not lie within an area that is designated for its scenic value, and the apparent influence of wind farms has affected the scenic qualities of the view. It does, however, have some scenic qualities in the rolling agricultural landscape, overlooks part the East Ayrshire SLA, and will be gained by the high number of people using the A76.

6.7.433 The susceptibility to change at this viewpoint is medium-low. The viewpoint is not on a specific walking or cycling route and viewers will be road-users. Susceptibility to the Proposed Development is also moderated by the extensive wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.434 The combination of the medium-low susceptibility to change of the view and its medium value results in a **medium** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.435 The eight turbines in the Proposed Development will be seen to the south of this viewpoint from a minimum of 14.31 km away with all hubs visible.

6.7.436 Short sections of upgraded access tracks and areas of hardstandings are theoretically visible in the vicinity of T3 and T8 but are unlikely to be discernible at a distance of over 14 km away. Tall cranes for turbine erection will be visible during the short-term construction phase.

6.7.437 The magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.438 In the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the Proposed Development is seen in the context of WSI, which has high visibility; in front of Windy Rig, which has very limited visibility; and overlapping with WSII. Afton is slightly further to the east and South Kyle to the west. Hare Hill is visible further away to the east, partly screened. In this scenario, the Proposed Development will have a **medium-low** magnitude of change, for the following reasons.

- The Proposed Development turbines will be seen at mid-range as tall, moving structures on the skyline, forming a clearly visible group of larger turbines in a part of the view that is currently characterised by the notably smaller WSI turbines and limited visibility of Windy Rig and WSII turbines. This skyline provides enclosure to the view across the basin, and visibility of the turbines on this skyline will in turn increase their prominence in the view. Separation will be retained between the Proposed Development and Afton wind farm, and the Proposed Development will result in a second group of tall turbines on this part of the skyline.
- The Proposed Development will be seen in place of WSI, which has a high level of visibility in this view. The Proposed Development turbines will be considerably larger than the WSI turbines that are currently on the site, with a resultant increased level of visibility and prominence.
- The Proposed Development will be seen in conjunction with WSII wind farm, and differences in rotor diameter and rotation speed are likely to be discernible as well as variation in the visible proportion of turbines. The Proposed Development is also likely to be discerned as a separate site from Afton due primarily to the differences in layout pattern but also turbine dimensions. The increased turbine scale may also be perceived in relation to other features of the landscape, such as landform.

6.7.439 The factors that restrict the magnitude of change to a **medium-low** level in the comparative baseline scenario are as follows:

- The Proposed Development will be seen on the site of WSI, in association with WSII, and between Afton and South Kyle. Hare Hill is also seen on the skyline, further away. This ensures that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The Proposed Development will have some degree of integration with Afton due to the proximity of the sites and their appearance in the same landscape setting. While the Proposed Development turbines are likely to be perceived as larger scale than Afton, the closer proximity of Afton to the viewpoint will mitigate this to some extent as will the presence of South Kyle turbines at closer proximity to the viewpoint. This replacement of WSI with the Proposed Development will improve upon the current baseline scale relationship between WSI and Afton, which shows a wide disparity in terms of turbine scale and layout.
- The 36 turbines in WSI wind farm will be replaced by the eight turbines in the Proposed Development, thus reducing visual clutter, removing extensive clustering and overlapping of turbines, and simplifying the image of the overall group of turbines. It is notable that some of the WSI turbines are seen against a backdrop of a hill landform, with widely varied turbine base elevations, and this impression will be simplified by the Proposed Development. The Proposed Development will also cover a slightly smaller horizontal extent of the view than WSI and, beneficially, will increase the separation between Afton and the Proposed Development, removing the perception of coalescence.
- The WSI turbines are the smallest in the baseline cluster of wind energy development, with a 53.5 m tip height, and the removal of these turbines will notably reduce the variation between the smallest and largest tip heights, with the next smallest being the 100 m tall WSII turbines. This is beneficial in reducing the visual confusion that can arise from visibility of a wide variety of turbine heights and rotor diameters.
- The limited extent of the skyline that will be affected by the Proposed Development (approximately 6º) combined with the distance of the Proposed Development from the viewpoint (over 14 km) ensures that the Proposed Development will not form a very readily apparent feature in the view.

6.7.440 In the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline), the magnitude of change on the view will increase slightly but will remain medium-low. This increase is due to the introduction of the Proposed Development turbines into a view where the operational WSI turbines do not form part of the baseline, and the benefits of the replacement of the WSI turbines, as described above, are therefore not apparent. However, the context of surrounding wind energy development within which the Proposed Development will be seen prevents the occurrence of a higher magnitude of change.

6.7.441 When consented wind farms are also considered, the level of development is considerably higher, with Pencloe Forest extending across the skyline in front of both Afton and the Proposed Development, creating one larger wind farm cluster. The closer proximity of Pencloe Forest ensures that its turbines appear to be of the same scale, or larger, than the Proposed Development, and the Proposed Development will appear as a fully integrated part of the same development. This ensures that when the predicted baseline is considered, the magnitude of change arising from the Proposed Development will reduce to a **low** level.

Significance of the Effect

6.7.442 The effect of the Proposed Development on this view will be moderate/minor and not significant in both the comparative baseline and restored baseline scenarios. This is due to a combination of the factors that lead to the medium-low magnitude of change on the view and the medium sensitivity of the viewpoint. When consented sites are also considered, the magnitude of change will reduce to a low level and the effect will remain not significant.

Cumulative Effects

6.7.443 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.24. There is also visibility of relevant application stage sites including Greenburn, Euchanhead and Sanquhar II, shown on Figure 6.24.

6.7.444 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the

baseline), the replacement of the WSI turbines with larger turbines will alter the relationship between the Proposed Development and surrounding wind energy development as well as leading to an increase in the visibility of the Proposed Development in comparison to that of WSI. The larger turbines are likely to increase the visibility of the Proposed Development in relation to other wind energy development and lead to scale comparisons between developments. This is particularly the case in this view, as WSI and II and to a lesser extent, Windy Rig, form a slightly separate cluster of development, and the Proposed Development will form the main part of this cluster when it replaces WSI.

6.7.445 However, in both the comparative and restored baseline scenarios, this cumulative effect arising from the Proposed Development is moderated by visibility of operational wind farms including Afton, Windy Rig and WSII, which ensures that wind energy development is already a prevailing characteristic of the part of the view in which the Proposed Development will be seen. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.446 In the comparative baseline scenario, the cumulative effect is also moderated by the replacement of the 36 turbines in WSI with the eight in the Proposed Development; the smaller horizontal extent of the view occupied by the Proposed Development in comparison with WSI; the reduction in the variation between tip heights and rotor diameters that will result from the replacement of WSI; the increased separation from Afton wind farm; and the level of integration that the Proposed Development has with operational development.

6.7.447 In the predicted baseline scenario the consented Pencloe Forest, as described above, ensures that the addition of the Proposed Development will not result in any further cumulative effect.

6.7.448 When Greenburn, Euchanhead and/or Sanquhar II wind farms are also considered in scenarios including application stage wind farms, the addition of the Proposed Development will not result in any further cumulative effect. This is because of its appearance in conjunction with operational and consented wind farms, which ensures that it will not introduce a new cluster of development.

6.7.449 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to its association with operational and consented development, which ensures that the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Viewpoint 10. A713 Carsfad Loch

6.7.450 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the limited and distant visibility of the Proposed Development, its appearance in conjunction with Windy Rig, and the moving nature of most viewers.

Viewpoint 11. Auchenroy Hill

Baseline and Sensitivity

6.7.451 This viewpoint is located on Auchenroy Hill (367 m AOD), just over 16 km to the west of the nearest turbine in the Proposed Development. Auchenroy Hill is accessed by East Ayrshire core path D13 and is a popular walking destination on Craigengillan Estate (which is also a GDL).

6.7.452 Auchenroy Hill is identified as a 'landmark hill' in EALWCS, where it is described as follows (Annex E):

> *"This rugged, steep-sided hill is prominently sited on the west side of the Doon Valley. Its natural appearance contrasts with the extensive coniferous forest and disturbed ground of opencast mining evident elsewhere in the Doon Valley between Dalmellington and Patna. Auchenroy Hill lies within the Inventory listed Craigengillan designed landscape. An extensive native woodland has been recently planted on the hill and this will enhance the landscape of the Doon Valley. Popular with walkers, the summit features views to the Galloway Hills, Ailsa Craig and Arran. This hill is also important in containing views of the operational Dersalloch wind farm from parts of the Doon Valley."*

6.7.453 This viewpoint lies within the Foothills with Forest West of Doon Valley LCT (East Ayrshire 17b). The view to the east, towards the Proposed Development, overlooks the Upland River Valley LCT of the River Doon, within which the settlements of Patna, Dalmellington and Bellsbank are clearly visible. Bogton Loch can be seen between the built-up areas. Beyond the settlements, landform rises from the valley into the Southern Uplands, which provide a distinctive enclosing skyline.

6.7.454 There is high visibility of wind farms in this view (see wirelines in Figure 6.26), particularly to the west, where Dersalloch wind farm is seen at close proximity, and to the east, where there is a large cluster of operational, under construction and consented development including Afton, Benbrack Variation, Enoch Hill, Hare Hill, Pencloe Forest, South Kyle, Windy Rig and WSIII.

6.7.455 As a result of the negligible visibility of WSI from this viewpoint, the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are effectively the same. The two baseline scenarios are therefore assessed together for this viewpoint, with no distinction made between them.

6.7.456 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The value of this view is high. It lies within and overlooks the East Ayrshire SLA and Craigengillan GDL, is a popular recreational destination accessed by a core path, and has scenic qualities. While the immediately apparent influence of wind farms has affected the scenic qualities of the view, the recognised value of the location in itself is sufficient to retain a high value.

6.7.457 The susceptibility to change at this viewpoint is medium-high. The people who gain the view will be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. However, susceptibility to the Proposed Development is moderated by the extensive baseline wind energy development that is seen in the same aspect of the view as the Proposed Development Area, ensuring that wind farm development is not an unfamiliar characteristic in this setting and has already affected the visual amenity experienced by viewers.

6.7.458 The combination of the medium-high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.459 The eight turbines in the Proposed Development will be seen to the east of this viewpoint from a minimum of 16.01 km away with seven hubs visible and one turbine seen as a blade only. All lower towers are screened by landform. The Proposed Development is seen between two groups of development that have a higher level of visibility: South Kyle to the north and Windy Rig and WSII to the south. There is negligible visibility of WSI. The consented sites of Pencloe Forest and Benbrack Variation will add to the northern and southern groups respectively.

6.7.460 Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase.

6.7.461 The magnitude of change on this view will be **medium-low** in both the comparative baseline scenario and restored baseline scenario for the following reasons.

- The Proposed Development turbines will be seen at mid-range on the Southern Uplands skyline in a specific part of the view that is currently characterised by limited operational and under construction wind energy development. The Proposed Development will extend development across the skyline between two groups of current baseline development, increasing the extent of the developed skyline. This Southern Uplands provide enclosure to the Upland River Valley LCT of the River Doon and visibility of the turbines on this skyline will in turn increase their prominence in the view.

6.7.462 The factors that restrict the magnitude of change to a **medium-low** level are as follows:

- The screening of lower towers by landform reduces the vertical impact of the Proposed Development, thus reducing its prominence on the skyline.
- While the Proposed Development will be seen on a specific part of the skyline that is currently affected by only limited wind energy development, it is an aspect of the view that is already strongly characterised by wind energy development, with groups of turbines lying on either side, and will therefore not introduce a new influence to an aspect of the view that is otherwise unaffected.
- The Proposed Development will have a high level of integration with South Kyle wind farm (which lies closer to the viewpoint) in terms of scale, layout, visible proportion of turbines, and landscape setting, and this will reduce its additional impact on the view. Furthermore, the Proposed Development turbines will not be seen in direct conjunction with any turbines that are of a smaller size, ensuring that scale comparisons will not arise.
- The limited extent of the skyline that will be affected by the Proposed Development (approximately 9º) combined with the distance of the Proposed Development from the viewpoint (over 16 km) ensures that the Proposed Development will not form a very readily apparent feature in the view.

6.7.463 When consented sites are considered, the level of development will be increased by Benbrack Variation and Enoch Hill wind farms. These sites are associated with the operational and under construction groups of development and will not notably alter the baseline situation to which the Proposed Development is added, ensuring that the magnitude of change will remain **medium-low** in this scenario.

Significance of the Effect

6.7.464 The effect of the Proposed Development on this view will be moderate and **not significant** in both the comparative baseline scenario and restored baseline scenario due to a combination of the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. This combination of sensitivity and magnitude of change can lead to an effect that is either significant or not significant; in this case it is assessed as not significant due largely to the high level of integration of the Proposed Development with South Kyle.

Cumulative Effects

6.7.465 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.26 and described in the assessment above. There is also limited visibility of relevant application stage sites including Euchanhead, Greenburn and Sanquhar II, shown on Figure 6.26.

6.7.466 In the current baseline scenario of operational and under construction wind farms, the addition of the Proposed Development will have some cumulative effect on this view as the Proposed Development will introduce new wind energy development into the view. However, the cumulative effect arising from the Proposed Development is moderated by the level of integration between the Proposed Development and South Kyle, as described above. It is also moderated by the level of operational and under construction development that is already seen in the view, which ensures that wind energy development is already a prevailing characteristic of the baseline view. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.467 In the predicted baseline scenario, the highly visible sites at Pencloe Forest/Enoch Hill Variation and Benbrack Variation will add to the current baseline, north and south of the Proposed Development respectively. The addition of the Proposed Development to a scenario that includes these sites will not result in any further cumulative effect due to its integration with operational, under construction and consented sites.

6.7.468 The application stage wind farms at Euchanhead, Greenburn and Sanquhar II wind farms have limited visibility and will not affect the cumulative assessment.

6.7.469 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is largely due to the level of integration between the Proposed Development and other wind farms, particularly South Kyle and WSIII, which ensures that the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Viewpoint 12. Forest Drive, Carrick Lane/Loch Doon

Baseline and Sensitivity

6.7.470 This viewpoint is located to the west of Loch Doon, on the waymarked Carrick forest drive (also East Ayrshire core path D11). The forest drive is currently closed to vehicles but is open to walkers and cyclists. This view will be gained by people following the core path/forest drive on foot or by bicycle.

6.7.471 This viewpoint lies within the Rugged Uplands with Lochs and Forest LCT but has little visibility across the landscape due to dense coniferous forestry screening. The forestry engenders a sense of seclusion and privacy that is quite different to the open and well-used areas along the loch shore.

6.7.472 There is some visibility of Windy Standard II and III through the gap in the forestry in this view (see wirelines in Figure 6.27). There is very limited visibility of WSI due to forestry screening.

6.7.473 As a result of the very limited visibility of WSI from this viewpoint, the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are effectively the same. The two baseline scenarios are therefore assessed together for this viewpoint, with no distinction made between them.

6.7.474 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The value of this view is high. It lies within the East Ayrshire SLA and Galloway Forest Park, is on a waymarked recreational route and core path, and has scenic qualities and a sense of place.

6.7.475 The susceptibility to change at this viewpoint is also high. The people who gain the view will be walkers or cyclists (and vehicular road-users, if the forest drive is reopened) who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The limited level of visible baseline wind energy development has not affected the visual amenity experienced by viewers to the degree where it could reduce the susceptibility of viewers.

6.7.476 The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.477 Eight turbines (four as hubs and four as blades only) in the Proposed Development will be theoretically visible from a minimum of 15.89 km away to the north-east of this viewpoint. Forestry will, however, screen four of these and it is likely that visibility will in fact be restricted to four turbines, two seen as hubs and two as blade tips only. The Proposed Development is seen in conjunction with WSII but the majority of these turbines are screened by forestry. There is visibility of the consented site at WSIII in direct conjunction with the Proposed Development.

6.7.478 Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase.

6.7.479 The magnitude of change on this view will be **medium-low** for the following reasons.

- The Proposed Development will increase the wind farm influence on the view through the introduction of taller turbines that extend further across the small part of the visible skyline than WSII turbines.
- The Proposed Development will be seen on the skyline through a gap in the forestry, which is the only open part of the view and to which the eye of the viewer will be drawn, in the line of view of people travelling eastwards on the forest drive.

6.7.480 The factors that restrict the magnitude of change to a **medium-low** level are as follows:

- The Proposed Development will be seen in conjunction with baseline turbines at WSII, ensuring that it will be seen in a part of the view that is already characterised by wind energy development (albeit limited visibility) and will not extend wind energy influence to an otherwise unaffected part of the view.
- This view is heavily screened and filtered by forestry, which reduces visibility of all of the turbines, and will be gained by moving viewers from a distance of just under 16 km away. The view is transitory and will be gained only briefly before forestry screening precludes visibility once again.

6.7.481 When consented sites are considered, parts of two turbines of WSIII will appear in conjunction with the Proposed Development, with the remainder screened by forestry. The relationship between these two sites will lead to a slight reduction in the magnitude of change arising from the Proposed Development but will not notably alter the baseline situation to which the Proposed Development is added, ensuring that the magnitude of change will remain medium-low in this scenario.

Significance of the Effect

6.7.482 The effect of the Proposed Development on this view will be moderate and **not significant** in both the comparative baseline scenario and restored baseline scenario. This is due to the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. This combination of sensitivity and magnitude of change can lead to an effect that is either significant or not significant, and in this case it is assessed as not significant due largely to the distance of the Proposed Development from the viewpoint, its very limited visibility, the appearance of the Proposed Development in conjunction with WSII, and the transitory nature of the view.

Cumulative Effects

6.7.483 There is theoretical visibility of WSI, II and III and the application stage site at Sanquhar II in this view, as shown in wirelines on Figure 6.27.

6.7.484 In the current baseline scenario, the addition of the Proposed Development will have a very limited cumulative effect on this view. This is due to the very limited visibility of wind farms (the Proposed Development and WSII) and their appearance in the same part of the view, so that there will not be a perception of multiple wind farms.

6.7.485 In the *predicted baseline* scenario, the level of integration between the Proposed Development and WSIII in terms of apparent scale and dimensions will continue to ensure that the turbine groups appear as a single development. This level of integration ensures that while the addition of the Proposed Development will increase the apparent scale and extent of wind energy development, the Proposed Development and WSIII will appear as a single development, and the Proposed Development will not lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.486 The application stage wind farm at Sanquhar II has very limited visibility and will not affect the cumulative situation.

6.7.487 In all scenarios, the Proposed Development will have a **not significant** cumulative effect. This is due to the very limited visibility of other wind farms and the level of integration between the Proposed Development and WSII and III, which ensures that the Proposed Development will not appear as a separate wind farm but as part of a slightly larger development. When a scenario that includes the application stage Sanquhar II wind farm is considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation.

Viewpoint 13. Minor road at Guffock Hill

Baseline and Sensitivity

6.7.488 This elevated viewpoint is located on a minor road in the upland landscape of the Lowther Hills. The road ascends rapidly from the A76 near Sanquhar, and provides an open, elevated south-westwards outlook across Nithsdale to the Carsphairn Southern Uplands.

6.7.489 The vast foreground and middle-ground of the North West Lowthers unit of the Southern Uplands LCT extends around almost all of the viewpoint, covering the north, east and west aspects of the outlook. This landscape is generally featureless with uniform rough grassland ground cover and, as a result, the few elements that are seen in it – the mast on Todholes Hill and post-and-wire fences – form eye-catching focal points.

6.7.490 The outlook to the south-west, across the Upper Nithsdale unit of Upper Dale (Valley) towards the Carsphairn, Ken and Nithsdale Southern Uplands, is notable as the only aspect of the view that looks beyond the Lowther Hills. This open part of the outlook is characterised by operational, under construction and consented wind farms (see wirelines in Figure 6.28), including Afton, Hare Hill, Lorg, Pencloe Forest, Sandy Knowe, Sanquhar Six Community, South Kyle, Wether Hill, Whiteside Hill, Windy Rig, and Windy Standard II (and, in the comparative baseline scenario, distant and indistinct visibility of WSI).

6.7.491 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of this view is medium; it is not a recognised or signposted outlook, does not lie within an area that is designated for its scenic value, and the influence of wind farms has affected the character of the view. However, the Lowther Hills landscape within which the viewpoint lies has a strong innate sense of place and scenic qualities, due in part to the contrast between this relatively undeveloped upland landscape and the high level of wind energy development that is seen in the more distant uplands to the south-west. The view also overlooks the East Ayrshire SLA.

6.7.492 The susceptibility to change at this viewpoint is medium-low. The viewpoint is not on a specific walking or cycling route and viewers will be road-users. Susceptibility to the Proposed Development is also moderated by the extensive baseline wind energy development that is visible, ensuring that wind farm development is not an unfamiliar characteristic and has already affected the visual amenity experienced by viewers.

6.7.493 The combination of the medium-low susceptibility to change of the view and its medium value results in a **medium** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.494 Six of the turbines in the Proposed Development will be seen to the south-west of this viewpoint from a minimum of 17.90 km away with all hubs visible. The closest cumulative wind farm is Sandy Knowe, which lies a minimum of 5.8 km away across the foreground of the view, in front of the Proposed Development. Beyond Sandy Knowe, the Proposed Development is seen in conjunction with very limited visibility of Afton and WSII and in between Sanquhar and Hare Hill and extension, both of which lie closer to the viewpoint than the Proposed Development. Whiteside Hill and Wether Hill wind farms continue southwards from Sanquhar, and the overall impression is one of extensive wind farm development.

6.7.495 Infrastructure will not be seen in the view, although tall cranes for turbine erection may be visible during the construction phase.

6.7.496 In the comparative baseline scenario, the magnitude of change on this view will be **low** the following reasons.

- WSI is not clearly visible in this view due to distance, and the Proposed Development turbines will be seen on a part of the skyline that is has limited visible wind energy development. The Proposed Development will therefore increase the wind farm influence on the view through the introduction of turbines on a part of the enclosing Southern Uplands skyline, between two groups of current baseline development, increasing the extent of the developed skyline.

6.7.497 The factors that restrict the magnitude of change to a **low** level in the comparative baseline scenario are as follows.

- The Proposed Development will be seen directly behind Sandy Knowe wind farm, which is considerably closer to the viewpoint, and this will both reduce the perceived scale of the Proposed Development turbines and ensure that the Proposed Development will not extend wind farm influence to otherwise unaffected parts of

the view (while noting that it will be seen on an otherwise apparently undeveloped part of the skyline, as described above).

- The Proposed Development will have some integration with Hare Hill and, especially, Sanquhar (both of which lie considerably closer to the viewpoint) as, despite the separate landforms on which each of the wind farms are seen, the turbine scale appears similar and the turbines are all seen in a Southern Uplands setting.
- The Proposed Development will be seen in a dip in the landform, which provides containment and reduces the perceived scale of the turbines.
- The limited extent of the skyline that will be affected by the Proposed Development (approximately 5º) combined with the distance of the Proposed Development from the viewpoint (just under 18 km) ensures that the Proposed Development will not form an apparent feature in the baseline view.

6.7.498 In the restored baseline scenario, the magnitude of change on the view will increase slightly but will remain low. This increase arises in this scenario (where the WSI site has been restored and the turbines removed) because the Proposed Development will appear on a section of the skyline that is not otherwise affected by turbines and will therefore increase the level of visible wind energy development. However, the distant and indistinct visibility of WSI and the context of the adjacent wind energy development prevent the occurrence of an increased magnitude of change.

Significance of the Effect

6.7.499 The effect of the Proposed Development on this view will be minor and **not significant** in both the comparative baseline and restored baseline scenarios due to a combination of the factors that lead to the low magnitude of change on the view and the medium sensitivity of the viewpoint.

Cumulative Effects

6.7.500 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.28 and described in the assessment above. There is also visibility of the application stage sites at Euchanhead and Sanquhar II, shown on Figure 6.28.

6.7.501 In the current baseline scenario, the addition of the Proposed Development will have some cumulative effect on this view. In relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline), the replacement of the operational WSI turbines with larger turbines will alter the relationship between the Proposed Development and other wind farms as well as leading to an increase in the level of visibility of the Proposed Development in comparison to that of WSI. However, the WSI turbines are not clearly visible, and this effect will be limited. However, this cumulative effect arising from the Proposed Development is moderated by the level of operational and under construction development (including most notably Hare Hill, Sandy Knowe and Sanquhar), that is already seen in the same part of the view. In both the comparative baseline scenario and the restored baseline scenario, this ensures that while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.502 This situation will not be notably altered in the predicted baseline scenario, when consented wind farms are also taken into consideration.

6.7.503 When Euchanhead and/or Sanquhar II are also considered in scenarios including application stage wind farms, the addition of the Proposed Development will not result in any further cumulative effect due to its appearance in conjunction with baseline wind farms. Euchanhead and Sanquhar II are both seen on the skyline closer to the viewpoint than the Proposed Development, and their presence would reduce the perceived scale and influence of the Proposed Development.

6.7.504 In all scenarios, the Proposed Development will have a **not significant** cumulative effect as the addition of the Proposed Development will have a non-material effect on the cumulative situation.

Viewpoint 14. Glenmuir Water

Baseline and Sensitivity

6.7.505 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the distant visibility of the Proposed Development and its appearance in conjunction with extensive baseline development.

Viewpoint 15. A70 between Cumnock/Prestwick

6.7.506 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the limited and distant visibility of the Proposed Development, its visibility in conjunction with extensive baseline wind energy development, and the moving and angled nature of views.

Viewpoint 16. Meikle Millyea

Baseline and Sensitivity

6.7.507 This viewpoint is located at the summit of Meikle Millyea (746 m AOD), which is the southernmost summit on the Rhinns of Kells ridge. It is a hillwalking destination, often walked in conjunction with other Rhinns of Kells summits, including Corserine, and is within the Galloway Hills RSA and on the edge of the Galloway Forest Park.

6.7.508 To the north-east, looking towards the Proposed Development, the outlook shows the progression of LCTs from the Rugged Granite Upland within which the viewpoint lies; across the Rhinns of Kells unit of Foothills with Forest, with its expanses of forestry; then the Upper Glenkens unit of Upper Dale (Valley), which is partially obscured by landform of the foothills; and then the backcloth of the Carsphairn Southern Uplands, with the distinctive domed skyline of Cairnsmore of Carsphairn.

6.7.509 There is high visibility of operational, under construction and consented wind farms in this view (see wirelines in Figure 6.31), particularly to the east and north-east, where there is a large cluster of operational, under construction and consented development including Benbrack Variation, Cornharrow, Enoch Hill, Lorg, Pencloe Forest, Sanquhar, Sanquhar Six Community, Wether Hill, Whiteside Hill, Windy Rig, and Windy Standard II and III. There is theoretical visibility of WSI but at over 20 km away, the small turbines of this wind farm have a very limited influence on the view.

6.7.510 As a result of the very limited visibility of WSI, the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are effectively the same. The two baseline scenarios are therefore assessed together for this viewpoint, with no distinction made between them.

6.7.511 Sensitivity is determined through a combination of the value attached to the view/viewpoint and the susceptibility of the viewer to the Proposed Development. The value of this view is medium-high. It is a hillwalking location, accessed partly by a core path, and lies within the Galloway Hills RSA and Galloway Forest Park. The view also has value in its scenic qualities across the Rhinns of Kells and Southern Uplands, and has retained a sense of place and perception of remoteness due to the strength of the innate character of the Rhinns of Kells. However, this is not a recognised viewpoint that is shown on mapping.

6.7.512 The susceptibility to change at this viewpoint is high. The people who gain the view will be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. In this case, susceptibility to the Proposed Development is not notably affected by baseline wind energy development. This is because the development is relatively distant, and extensive remote, upland parts of the view remain unaffected by wind farms, including most notably the area covered by WLA 01 Merrick, which lies close to the west of the viewpoint.

6.7.513 The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint in both the comparative baseline scenario and restored baseline scenario.

Magnitude of Change

6.7.514 The eight turbines in the Proposed Development will be seen to the east-north-east of this viewpoint from a minimum of 20.84 km away, with four turbines seen as hubs and the other four as blade tips only. The Proposed Development is seen in the context of operational and under construction wind farms at Afton, Sanquhar, South Kyle, Whiteside Hill, Windy Rig, Windy Standard II, although some of the more distant and smaller turbines are hard to discern due to distance. The consented sites of Benbrack Variation, Enoch Hill, Pencloe Forest and WSIII will add to the current baseline.

6.7.515 Infrastructure will be screened by landform, although tall cranes for turbine erection will be apparent during the construction phase.

6.7.516 The magnitude of change on this view will be **medium-low** in relation to both the comparative baseline scenario and restored baseline scenario for the following reasons.

- The Proposed Development turbines will be seen at long range on the prominent Southern Uplands skyline which provides enclosure to the Upper Glenkens, and visibility of the turbines on this skyline will increase their prominence in the view.
- The more visible Proposed Development turbines will be seen on either side of the distinctive landform of Cairnsmore of Carsphairn, which forms a focal point in the otherwise generally unremarkable skyline to the north-east of the viewpoint, and this can draw the eye of the viewer towards the Proposed Development. The appearance of the Proposed Development in two parts, with turbine hubs on both sides of the landform can also increase its influence on the view.
- The scale and location of the Proposed Development and its relationship with landform and with the current and predicted baseline wind farms in this view gives it a vertical impact that is generally not apparent in views towards the site, with the turbines seen in a relatively elevated position. The scale of the Proposed Development turbines is larger than that of some of the baseline wind farms in this context, and this perception is emphasised by the elevation of the Proposed Development.

6.7.517 The factors that restrict the magnitude of change to a **medium-low** level are as follows:

- The Proposed Development will be seen in association with extensive baseline wind energy development, ensuring that it will be seen in a part of the view that is already strongly characterised by wind energy development and will not introduce a new influence to an aspect of the view that is otherwise unaffected.
- Despite differences in scale and elevation, the Proposed Development will integrate with South Kyle, Windy Rig and WSII due to the adjacent location of the sites, similarities in layout, and their appearance in the same landscape setting of Southern Uplands.
- It is beneficial that hubs in the Proposed Development will not rise behind the landform of Cairnsmore of Carsphairn, as this could diminish the apparent scale and distinctiveness of the landform. The blades that are theoretically visible on the skyline of the hill are unlikely to be readily apparent due to distance.
- The limited extent of the skyline that will be affected by the Proposed Development (less than 6º) combined with the distance of the Proposed Development from the viewpoint (over 20 km) ensures that the Proposed Development will not form a readily apparent feature in the view.

Significance of the Effect

6.7.518 The effect of the Proposed Development on this view will be moderate and **not significant** in both the comparative baseline scenario and restored baseline scenario due to the factors considered in the medium-low magnitude of change on the view, despite the high sensitivity of the viewpoint. This combination of sensitivity and magnitude of change can lead to an effect that is either significant or not significant; in this case it is assessed as not significant due to the appearance of the Proposed Development in a part of the view that is strongly characterised by wind energy development, and the distance of the Proposed Development from the viewpoint.

Cumulative Effects

6.7.519 There is visibility of a number of operational, under construction and consented wind farms from this viewpoint, as shown on Figure 6.31 and described in the assessment above. There is also visibility of application stage sites including Euchanhead, Sanquhar II and Shepherds' Rig, shown on Figure 6.31.

6.7.520 In the current baseline scenario, in both the comparative baseline scenario and restored baseline scenario, the addition of the Proposed Development will have some cumulative effect on this view as the WSI turbines are not clearly visible, and the Proposed Development will introduce new wind energy development into the view. However, the cumulative effect arising from the Proposed Development is moderated by its visibility in conjunction with South Kyle and WSII, and Windy Rig, to the north and south of Cairnsmore of Carsphairn respectively. It is also moderated by the level of operational and under construction development that is already seen in the view, which ensures that wind energy development is already a prevailing characteristic of the baseline view. Therefore, while the addition of the Proposed Development will increase the scale of wind energy development, it will not itself lead to the creation of a view in which wind farms are a key characteristic.

6.7.521 In the predicted baseline scenario, the additional consideration of consented sites will not notably alter the cumulative effect arising from the addition of the Proposed Development to the current baseline scenario.

6.7.522 When any combination of Euchanhead, Sanquhar II and Shepherds' Rig wind farms are considered in scenarios including application stage wind farms, the addition of the Proposed Development will not result in any further cumulative effect due to its integration with South Kyle, Windy Rig and WSII. The additional consideration of Euchanhead/Sanquhar II would in fact reduce the cumulative effect arising from the Proposed Development as these sites would introduce tall turbines in an elevated position on the skyline ridge, reducing the perceived scale of the Proposed Development.

6.7.523 In all scenarios, the Proposed Development will have a **not significant** cumulative effect.

Viewpoint 17. A762 north of New Galloway

6.7.524 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the limited and distant visibility of the Proposed Development, its visibility in conjunction with extensive baseline wind energy development, and the moving and angled nature of views.

Viewpoint 18. Minor road near Shalloch

6.7.525 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the distant visibility of the Proposed Development, its appearance in conjunction with extensive baseline development and the moving nature of viewers.

Viewpoint 19. Merrick

6.7.526 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the distant visibility of the Proposed Development and its appearance in conjunction with extensive baseline development.

Viewpoint 20. Mauchline

6.7.527 The preliminary assessment in Table 6.6 has indicated that the effect on this viewpoint will be not significant due to the distant visibility of the Proposed Development and its appearance in conjunction with extensive baseline development.

Leggate, Connel Park and Bankglen

6.7.528 The linked settlements of Leggate, Connel Park and Bankglen are a minimum of just over 8.5km to the north of the Proposed Development, just to the west of New Cumnock and accessed by the B741. These settlements are

located on the floor of the East Ayrshire Upland Basin LCT between the River Nith and the Connel Burn, with slopes rising steeply into the Southern Uplands to the south.

6.7.529 There is not a viewpoint in Leggate, Connel Park and Bankglen. Viewpoint 5 in New Cumnock, approximately 2.5 km away to the north-east, shows a higher level of visibility than that which may be gained from Leggate, Connel Park and Bankglen.

6.7.530 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers and Leggate, Connel Park and Bankglen are therefore considered to have a **high** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.531 The ZTVs indicate visibility of varying levels across Leggate, Connel Park and Bankglen. Connel Park and the central/eastern part of Bankglen have high theoretical visibility of blades and limited visibility of hubs, while Leggate and the western part of Bankglen have more limited theoretical visibility of both hubs and blades. In reality, extensive areas of the theoretical visibility are screened by houses in the settlements and by the rising foreground landform.

6.7.532 Working wirelines suggest that visibility from these settlements is more limited than seen at Viewpoint 5 due to the landform that rises steeply to the south, foreshortening views. The integration with Afton wind farm that is seen at Viewpoint 5 will also be apparent here, and working wirelines show that at many locations Afton will have more theoretical visibility than the Proposed Development.

6.7.533 The assessment for Viewpoint 5 concluded that the effect of the Proposed Development will be the same in both the comparative baseline scenario and the restored baseline scenario but will vary dependent on the wind farm development scenario that is considered and this is also the case with views from Leggate, Connel Park and Bankglen.

6.7.534 When operational and under construction wind farms are considered, where clear and open views towards the Proposed Development are available similar to those seen at Viewpoint 5, the magnitude of change will be a maximum of **medium-low**. This level of change on views will be restricted to the few specific areas that gain clear and open views and relatively high visibility of the Proposed Development. Elsewhere, where there is more limited visibility of the Proposed Development, the magnitude of change is likely to be limited to a maximum **low** level. Many parts of the settlement will have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

6.7.535 When the consented site at Pencloe Forest wind farmis also taken into consideration, the magnitude of change on views will reduce to a maximum **low** level due to the high level of visibility of Pencloe Forest across the view in front of the Proposed Development and the resultant reduced level of visibility and influence of the Proposed Development.

Significance of the Effect

6.7.536 The effect of the Proposed Development on views from the majority of Leggate, Connel Park and Bankglen will be **not significant** in both the comparative baseline scenario and the restored baseline scenario due to lack of, or limited, visibility of the turbines and the baseline setting of wind energy development in which they are seen. However, the maximum medium-low magnitude of change combined with the high sensitivity of the receptor may lead to a moderate and **significant** effect on views from some limited locations when only operational and under construction wind farms are considered, without the consented site at Pencloe Forest.

Cumulative Effects

6.7.537 The cumulative assessment at Viewpoint 5 concludes that the cumulative effect of the Proposed Development on the view will be not significant in any cumulative scenarios. This is due to the level of integration between the Proposed Development and Afton and, in the predicted baseline scenario, Pencloe Forest. The nearby presence of South Kyle and Hare Hill also reduces the cumulative effect arising from the Proposed Development. The relationship of the Proposed Development with these sites ensures that it will not lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.538 This assessment will also apply to wider views from Leggate, Connel Park and Bankglen, as the relationship of the Proposed Development with the other relevant wind farms will remain fairly consistent, and the cumulative effects on views from the settlements will be **not significant**. It is important to note that visibility of both the Proposed Development and the majority of other wind farms from much Leggate, Connel Park and Bankglen is frequently more limited than that seen at Viewpoint 5.

New Cumnock

Baseline and Sensitivity

6.7.539 The settlement of New Cumnock is a minimum of just over 8.5km to the north of the Proposed Development. New Cumnock lies on the eastern edge of the East Ayrshire Upland Basin LCT, close to its boundary with the Upland River Valley LCT of the River Nith, and the built-up area of the settlement covers the valley floor and lower valley sides. The A76 runs through New Cumnock, as does the railway line.

6.7.540 Viewpoint 5 (New Cumnock) is located on the A76 bridge over the railway, beside the railway station, from where there is a long, open and elevated view to the south, towards the Proposed Development. This viewpoint represents the highest type of visibility that may be gained from New Cumnock due to its elevation and the open aspect that is gained.

6.7.541 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers and New Cumnock is therefore considered to have a **high** sensitivity in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.542 The ZTVs indicate visibility of varying levels across New Cumnock. The northern part of the settlement (including Viewpoint 5) is shown to gain high theoretical visibility of blades and hubs, more limited theoretical visibility in the central part, and no visibility in the southern part. In reality, extensive areas of the theoretical visibility are screened and filtered by houses and vegetation in the settlement.

6.7.543 The assessment for Viewpoint 5 concluded that the effect of the Proposed Development will be the same in both the comparative baseline scenario and the restored baseline scenario but will vary dependent on the wind farm development scenario that is considered and this is also the case with views from the wider settlement of New Cumnock. When the operational and under construction wind farms are considered, the Proposed Development will have a medium-low magnitude of change on the view, and when the consented wind farm at Pencloe Forest is also considered, the magnitude of change arising from the Proposed Development will reduce to a low level.

6.7.544 Where clear and open views towards the Proposed Development are available from New Cumnock, similar to those seen at Viewpoint 5, the magnitude of change on views from the wider settlement will also be a maximum of **medium-low** when operational and under construction wind farms are taken into consideration. This level of change on views will be restricted to the specific areas that gain similarly open views and elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude of change is likely to be limited to a maximum **low** level. Many parts of the settlement will have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

6.7.545 When the operational and under construction wind farms are considered, the Proposed Development will have a medium-low magnitude of change on the view, and when the consented wind farm at Pencloe Forest is also considered, the magnitude of change arising from the Proposed Development will reduce to a low level.

Significance of the Effect

6.7.546 The effect of the Proposed Development on views from the majority of New Cumnock will be not significant in both the comparative baseline scenario and the restored baseline scenario due to lack of, or limited, visibility of the turbines and the baseline setting of wind energy development in which they are seen. However, the maximum medium-low magnitude of change combined with the high sensitivity of the receptor may lead to a moderate and significant effect on views from some limited locations (as seen at Viewpoint 5) when only operational and under construction wind farms are considered, without the consented site at Pencloe Forest.

Cumulative Effects

6.7.547 The cumulative assessment at Viewpoint 5 concludes that the cumulative effect of the Proposed Development on the view will be not significant in any cumulative scenarios. This is due to the level of integration between the Proposed Development and Afton and, in the predicted baseline scenario, Pencloe Forest. The nearby presence of South Kyle and Hare Hill also reduces the cumulative effect arising from the Proposed Development. The relationship of the Proposed Development with these sites ensures that it will not lead to the creation of a view in which multiple wind farms are a key characteristic.

6.7.548 This assessment will also apply to wider views from New Cumnock, as the relationship of the Proposed Development with the other relevant wind farms will remain fairly consistent, and the cumulative effects on views from the settlement will be **not significant**. It is important to note that visibility of both the Proposed Development and the majority of other wind farms from much New Cumnock is frequently more limited than that seen at Viewpoint 5.

A713

Baseline and Sensitivity

6.7.549 The A713 runs between Ayr and Castle Douglas, passing to the south and west of the Proposed Development. Viewpoint 10 is located on the A713.

The preliminary assessment in Table 6.5 ascertained that the turbines in the Proposed Development will have very limited visibility from this route and will not lead to a significant effect on views from the route. However, some site infrastructure at the site entrance will be located several hundred metres to the east/north-east of the road, and this route is therefore included in the assessment.

6.7.550 Sensitivity is determined through a combination of the value attached to the views from the route and the susceptibility of the viewer to the Proposed Development. The value of views from the A713 is medium-high. The road passes through local scenic designations – the Galloway Hills RSA and East Ayrshire SA – for much of its length and is part of the nationally-recognised Galloway Tourist Route. Views from the road are often scenic and representative of the Southern Uplands hills and valleys, resulting in a sense of place. The road, is not however, part of long-distance walking routes or cycle routes (although it is crossed by several walking routes).

6.7.551 The susceptibility to change of viewers is medium-high as some travellers are likely to have a specific focus on the landscape due to the designation of the route as a tourist route. Susceptibility is moderated to a medium-high level by the extensive visibility of construction tracks and infrastructure (including site cabins, car parks, heavy machinery and plant, signage and fencing) in views from the road, much of which is related to South Kyle wind farm. This ensures that infrastructure and construction operations are not an unfamiliar characteristic in views from the A713 and have already affected the visual amenity experienced by viewers.

6.7.552 The combination of the medium-high susceptibility to change and the medium-high value of the views results in a **medium-high** sensitivity for the A713 in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.553 This assessment considers the effect that the infrastructure of the site entrance will have on views from the A713 and is the same in both the comparative baseline scenario and the restored baseline scenario as this will not affect the entrance infrastructure.

6.7.554 The elements of infrastructure that may be visible from the A713 are the gatehouse (which is likely to be a portacabin style of building), temporary car parking, and possibly associated fencing and lighting. These elements will be in an elevated location several hundred metres to the east/north-east of the road, and are accessed by an existing track, which will be upgraded for the Proposed Development.

6.7.555 The site entrance and area to be used for the gatehouse and car parking are already used as an access point off the A713, with the tracks clearly apparent and in use. The same access point will also be used for WSIII. There is some woodland screening between the road and the gatehouse and car parking, but glimpse views are likely to be gained, particularly by people travelling south-east on the A713.

6.7.556 The magnitude of change on views will be a maximum of **medium-low**. This is limited by the existing infrastructure in this location, the baseline prevalence of construction and infrastructure operations in views from the A713, the brief and moving nature of views, the temporary nature of the works, and the filtering and screening of views by woodland.

Significance of the Effect

6.7.557 The effect of the Proposed Development on views from the A713 will be moderate and **not significant** due to the factors considered in the maximum medium-low magnitude of change and the medium-high sensitivity of the receptor. This combination of magnitude of change and sensitivity can result in an effect that is significant or not significant; in this case the effect is considered to be not significant largely due to the baseline presence of infrastructure in this location and the brief, moving nature of views.

Southern Upland Way

Baseline and Sensitivity

6.7.558 The SUW crosses the south of Scotland from Portpatrick on the south-west coast to Cockburnspath on the east coast, covering 344 km in total. The section of the route between Glentrool in the west and Moffat in the east passes through the study area for the Proposed Development. Walkers are encouraged to travel from west to east along the SUW in order to benefit from having both the sun and the prevailing wind behind them.

6.7.559 Viewpoint 4 (Benbrack) is located on the SUW.

6.7.560 There are a number of operational, under construction and consented wind farms along the SUW (i.e. within approximately 15 km of the route as it passes through the study area) that may theoretically be seen in views from the path. These include Mark Hill, Kilgallioch, Blackcraig, Troston Loch, WSI, II and III, South Kyle, Windy Rig, Wether Hill, Whiteside Hill, Lorg, Twenty Shilling, Sanquhar, Sanquhar Six Community, Sandy Knowe, Clyde and Harestanes.

6.7.561 Sensitivity is determined through a combination of the value attached to the views from the route and the susceptibility of the viewer to the operational phase of the Proposed Development. The sensitivity of the view in the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline and that the WSI site has been restored other than the retained access tracks) are assessed together due to the similarity of the relevant criteria that are considered. The value of views from the SUW is high as the route passes through a number of scenic designations, and views from the route are scenic and varied. The recognition of the route as one of Scotland's Great Trails also adds value.

6.7.562 The susceptibility to change of viewers will be medium-high; walkers, cyclists and horse-riders following the route are partaking in outdoor recreation on a recognised national trail and are likely to have a specific focus on the scenery and surrounding landscape. However, susceptibility to the Proposed Development is moderated by the extensive baseline wind energy development that is seen in the same aspect of views from the SUW as the Proposed Development, ensuring that wind farm development is not an unfamiliar characteristic and has already affected the visual amenity experienced by viewers.

6.7.563 The combination of the medium-high susceptibility to change of the viewers and the high value of the views available results in a **high** sensitivity for the SUW.

Magnitude of Change

6.7.564 The magnitude of change is assessed concurrently for eastbound and westbound walkers on this route because walkers may stop and turn around to enjoy the view in all directions at any point on the route. The assessment is described with a west to east direction of travel as this is the recommended route to take.

6.7.565 At its closest point, the SUW passes approximately 6.5 km to the east of the nearest turbine in the Proposed Development, with the closest visibility being gained from approximately 6.8 km away. The ZTVs show intermittent and limited theoretical visibility of hubs and blades commencing to the west of St John's Town of Dalry (Dalry), approximately 20 km to the south of the Proposed Development. This intermittent and limited visibility continues until the path meets the B729 at Stroanpatrick, approximately 10 km to the south of the Proposed Development. Working wirelines show that over this stretch, where it is visible, the Proposed Development will theoretically be seen consistently in conjunction with operational and under construction wind farms, including Afton, South Kyle, Windy Rig, and WSII. The consented site at Benbrack Variation is also apparent in some views. The maximum magnitude of change on this stretch will be **low** to **medium-low** in both the comparative baseline scenario and the restored baseline scenario due to the limited, intermittent, and distant visibility of the Proposed Development and its appearance in conjunction with other wind farms.

6.7.566 Theoretical visibility commences again just to the north of Stroanpatrick, approximately 9.6 km to the south of the Proposed Development, and continues to Polskeoch, 7 km to the east of the Proposed Development. Over this stretch, theoretical visibility is more consistent but remains limited in terms of the number of visible turbines, and visibility of all eight turbines is limited to high points and short ridges. Viewpoint 4 (Benbrack) is located at one such high point and shows the highest type of visibility that will be gained from the SUW. Forestry also provides further screening in places.

6.7.567 Over this stretch, the magnitude of change in relation to the comparative baseline scenario (e.g. assuming the presence of WSI as part of the baseline) and the restored baseline scenario (e.g. assuming that the WSI turbines are not part of the baseline) are assessed separately due to the different considerations in each scenario.

6.7.568 This stretch of theoretical visibility between Stroanpatrick and Polskeoch covers a length of approximately 12 km and lies between approximately 9.6 km and 6.8 km away from the Proposed Development. The Proposed Development will be seen in close conjunction with current baseline wind farms at Afton, Windy Rig, and WSII and III, as seen at Viewpoint 4. Other wind farms lie close to this section of the SUW, including Wether Hill, Sanquhar and Whiteside Hill. WSI has a high level of visibility from parts of this stretch of the SUW (e.g. Viewpoint 4), and in the comparative baseline scenario, the baseline presence of wind energy development on the Proposed Development Area itself moderates the effect of the Proposed Development as it will be replacing baseline wind farm influence rather than introducing influence to an otherwise unaffected part of the view. The replacement of WSI is beneficial in some respects in the comparative baseline scenario, as described at Viewpoint 4.

6.7.569 The magnitude of change at Viewpoint 4 is assessed to be medium-low in the comparative baseline scenario and medium in the restored baseline scenario, and the medium or **medium-low** magnitude of change will also apply to the parts of this stretch of the SUW that gain clear, open and elevated views of the Proposed Development and have a similarly high level of visibility to that seen at Viewpoint 4. Elsewhere, where visibility is more limited due to screening by landform and forestry, the magnitude of change will be lower, ranging from no change to **low/medium-low**. The construction of the consented site at Lorg will also reduce the magnitude of change of the Proposed Development as this site lies between the SUW and the Proposed Development, and its presence will reduce the additional influence of the Proposed Development.

6.7.570 At Polskeoch, theoretical visibility ceases as the SUW drops into the valley of the Polskeoch Burn/Scaur Water and there is then only very intermittent and limited visibility until the SUW reaches high ground that rises to the east of Sanquhar, where there is a stretch of more consistent visibility. However, this is approximately 19 km away from the Proposed Development, and it will be seen in conjunction with operational wind farms at Afton, Sanquhar, Windy Rig, and WSII. The maximum magnitude of change on this stretch will be **low** due to the limited and distant visibility of the Proposed Development and its appearance in conjunction with other wind farms.

Significance of the Effect

6.7.571 The effect of the Proposed Development on views from the great majority of the SUW will be moderate-moderate/minor and **not significant** in both the comparative baseline scenario and restored baseline scenario due to the factors considered in the maximum low/medium-low magnitude of change on views, despite the high sensitivity of the route. A moderate or major/moderate and **significant** effect is, however, likely to arise intermittently on views from the 12 km long stretch between Stroanpatrick and Polskeoch, where the maximum magnitude of change will be medium (in the restored baseline scenario) or medium-low (in the comparative baseline scenario) at Viewpoint 4. On some sections, this will become not significant when consented wind farms are taken into consideration due to the presence of Lorg wind farm between the SUW and the Proposed Development.

Cumulative Effects

6.7.572 Operational and under construction wind farms are a prevailing characteristic of baseline views from the stretch of the SUW that will be affected by the Proposed Development, and the addition of the Proposed Development to these views will not materially alter this situation (as seen at Viewpoint 4). When scenarios that include consented and application stage wind farms as well as operational and under construction wind farms are considered, the addition of the Proposed Development will continue to have a non-material effect on the cumulative situation. In all scenarios, the Proposed Development will therefore have a **not significant** cumulative effect.

Core Paths

Baseline and Sensitivity

6.7.573 Core paths that lie within 20 km of the nearest turbine in the Proposed Development are shown on Figure 6.6b and in conjunction with the ZTV on Figure 6.13b.

6.7.574 There are no core paths on the part of the Proposed Development Area where the turbines will be located. There are, however, a number of core paths in the study area and one path – DGC path 594 (Carsphairn Forest and Knockengorroch) –is shown on mapping to run close to the Proposed Development access track for approximately 150 m to the south of Waterhead.

6.7.575 This assessment draws broad conclusions from the viewpoint assessment and assessment of effects on principal visual receptors as to the level of visibility and effects that the Proposed Development will have on the core path network within a 20 km radius. Relevant considerations are as follows:

- Viewpoints 1, 2, 3, and 4 lie within 10 km of the nearest turbine in the Proposed Development while Viewpoints 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14 are between 10 km and 20 km away, and these viewpoint assessments therefore give an indication of the level of the effect that the Proposed Development is likely to have on views from core paths within the 20 km radius; and
- Viewpoints 4, 8 and 12 are located on core paths and represent views that will be gained by core path users.

6.7.576 Sensitivity is determined through a combination of the value attached to the views from the core paths and the susceptibility of viewers to the Proposed Development. The value of views from paths varies according to the

specific views that are gained, as described in the viewpoint assessment. This is dependent on, for example, the presence of any landscape-related designations (i.e. RSA) and the level of scenic attraction seen in views from paths. However, for the purpose of this specific assessment of effects on views from core paths, it has been assumed that the value of views will be high as this reflects the highest possible level of value, which is appropriate for users of these recognised and nationally documented routes.

6.7.577 The susceptibility to change of viewers is also high as views from core paths will be gained by walkers who are engaging in outdoor recreation and likely to have a specific focus on the views available.

6.7.578 The combination of the high susceptibility to change of viewers and the high value of the views results in a **high** sensitivity for views from the core path network in both the comparative baseline scenario and the restored baseline scenario.

Magnitude of Change

6.7.579 The magnitude of change on views from the network of core paths that lie within 20 km of the nearest turbine in the Proposed Development is considered to be broadly represented by the 14 viewpoints that are located within this 20 km radius, and most specifically by the three viewpoints that are located on core paths within this radius.

6.7.580 There are four viewpoints within 10 km of the Proposed Development, as listed above, of which two are assessed to have a medium-high magnitude of change in both the comparative baseline scenario and the restored baseline scenario; one a medium magnitude of change in both the comparative baseline scenario and the restored baseline scenario; and one a medium-low magnitude of change in the comparative baseline scenario and a medium magnitude of change in the restored baseline scenario.

6.7.581 Beyond the 10 km band, the magnitude of change drops as distance from the Proposed Development increases. There are ten viewpoints between 10 km and 20 km from the nearest turbine in the Proposed Development, of which one (Viewpoint 7, just over 10 km away) has a medium magnitude of change in both the comparative baseline scenario and the restored baseline scenario while the remainder are medium-low, low or do not have potential to undergo a significant effect and have therefore not been assessed in detail. It is notable that beyond approximately 10 km away, the difference between the magnitude of change when operational and under construction wind farms are considered and when consented sites are also considered becomes more pronounced, and in four instances (Viewpoints 5, 7, 8 and 9) the inclusion of consented sites leads to a reduction in magnitude of change on the view.

6.7.582 Bearing in mind that the viewpoints have generally been located so as to gain an open and clear view of the Proposed Development and to represent its visibility from specific parts of the study area, it may be assumed that the pattern of visibility from core paths will be broadly similar to that seen at the viewpoints, and that the variables that affect the level of magnitude of change at viewpoints will also apply more widely to each distance band. It may therefore be concluded that where there is clear and open visibility of the Proposed Development from core path routes within approximately 11 km of the nearest turbine, the magnitude of change is likely to be **medium-high**, **medium** or **medium-low** in both the comparative baseline scenario and the restored baseline scenario. This accords with the assessment of effects on views from the SUW, which concludes that the maximum magnitude of change on the stretch of theoretical visibility between Stroanpatrick and Polskeoch, which lies between approximately 9.6 km and 6.8 km away from the Proposed Development, will be medium.

6.7.583 Where the Proposed Development is visible, but visibility is more limited (due to screening by landform and vegetation, for example), the magnitude of change is likely to be lower and there will be extensive locations on core paths where the magnitude of change is **low** or **negligible**, or there is no visibility at all, as shown on the ZTV.

6.7.584 Between approximately 11 km and 20 km from the nearest turbine, the magnitude of change on views from core paths is unlikely to be greater than **medium-low** (or **low** when consented sites are considered), and will often be lower than this due to a combination of distance, the context of wind energy development in which the Proposed Development is seen, landform and vegetation screening, and the relatively small proportion of views that will be affected.

Significance of the Effect

6.7.585 The effect of the Proposed Development on views from core paths within 20 km of the nearest turbine in the Proposed Development will vary according to the level and type of visibility that is gained. The findings of the viewpoint assessment indicate that where a clear, open view with high visibility of the Proposed Development is available from core paths within approximately 11 km, the effect is likely to be **significant** in both the comparative baseline scenario and the restored baseline scenario due to a combination of the medium-high or medium magnitude of change on views and the high sensitivity that has been attributed to core paths as visual receptors. This will apply, for example, to sections of the path near Viewpoint 4, which is assessed as the SUW as well as a core path. There are, however, considerable stretches of paths within an approximately 11 km radius where visibility of the Proposed Development is more limited, and the effect will be **not significant** due to a lower magnitude of change.

6.7.586 It is very unlikely that significant visual effects will arise beyond 11 km from the Proposed Development, on the basis of the viewpoint assessment, and effects on views from core paths beyond 11 km away are therefore most likely to be **not significant**.

Cumulative Effects

6.7.587 The cumulative viewpoint assessment has indicated that cumulative effects will be **not significant** in both the comparative baseline scenario and the restored baseline scenario, and this will apply to views from core paths. This is due to the extensive wind energy development that forms the context to the Proposed Development as seen at every viewpoint, which ensures that the addition of the Proposed Development itself will have a non-material effect on the cumulative situation.

Visual Assessment of Visible Aviation Lighting

Introduction

6.7.588 The CAA requires that 'en-route obstacles' at or above 150 m above ground level are lit with visible lighting to assist their detection by aircraft. As the turbines in the Proposed Development are 200 m to tip height, there will be a requirement for some of these turbines to display visible red lights at night. It is proposed that five of the turbines will be lit; these are T1, T3, T4, T5 and T7.

6.7.589 The night-time visual effect of the Proposed Development will arise from visible medium intensity (2,000 candela) red-coloured light fittings located on the nacelles. It should be noted that all turbines will also include infra-red lighting on the turbine hubs which would not be visible to the human eye. The focus of this assessment is on the visual assessment of the visible aviation lighting requirements of the Proposed Development.

6.7.590 The night-time visual assessment has been informed by the following three viewpoint locations, which have been selected from the representative LVIA viewpoints in agreement with NatureScot:

- Viewpoint 3 (Water of Ken);
- Viewpoint 5 (New Cumnock); and
- Viewpoint 8 (Loch Doon).

6.7.591 This visual assessment of turbine lighting is supported by the following figures:

- Figure 6.9a – Turbine Lighting ZTV (45 km Radius)
- Figure 6.9b – Turbine Lighting ZTV (20 km Radius)
- Figure 6.9c – Turbine Lighting comparative ZTV with WSIII (20km Radius)

- Figure 6.9d – Lighting Intensity ZTV (45 km Radius)
- Figure 6.18g and 6.18h - Viewpoint 3 Photomontages (Lighting Assessment): 2000 candela (cd) and 200 cd Intensity Lighting
- Figure 6.20g and 6.20h - Viewpoint 5 Photomontages (Lighting Assessment): 2000 cd and 200 cd Intensity Lighting
- Figure 6.23f and 6.23g - Viewpoint 8 Photomontages (Lighting Assessment): 2000 cd and 200 cd Intensity Lighting

Approach to Assessment of Lighting Effects

6.7.592 This night-time assessment follows the methodology described in Appendix 6.1.

6.7.593 GLVIA3 (page 103) provides the following guidance on the assessment of lighting effects:

> *"For some types of development the visual effects of lighting may be an issue. In these cases it may be important to carry out night-time 'darkness' surveys of the existing conditions in order to assess the potential effects of lighting and these effects need to be taken into account in generating the 3D model of the scheme. Quantitative assessment of illumination levels, and incorporation into models relevant to visual effects assessment, will require input from lighting engineers, but the visual effects assessment will also need to include qualitative assessments of the effects of the predicted light levels on night-time visibility."*

6.7.594 Current advice as to how lighting is represented in visualisations is provided in NatureScot guidance 'Visual Representation of Wind Farms' (Version 2.2, February 2017), paragraphs 175-176:

> *"The visualisation should use photographs taken in low light conditions, preferably when other artificial lighting (such as street lights and lights on buildings) are on, to show how the wind farm lighting will look compared to the existing baseline at night. It is only necessary to illustrate visible lighting, not infrared or other alternative lighting requirements….We have found that approximately 30 minutes after sunset provides a reasonable balance between visibility of the landform and the apparent brightness of artificial lights, as both should be visible in the image."*

6.7.595 This approach has been followed for the three night-time visualisations noted above, which capture photographs at dusk at the three viewpoints and create photomontage images based on OPEN's experience gained from examining light fittings in situ across Scotland. The night-time photography has been captured in low light conditions, when other artificial lighting (such as streetlights and lights on buildings) is on, to show how the Proposed Development lighting would look in comparison with the existing night-time baseline.

6.7.596 It should be noted that the night-time photography has been captured in periods of good visibility that is greater than 5 km. As a result, the night-time photomontage representations of the 2,000 cd lights are an unrealistic over-representation of the likely visibility of visible aviation lighting. This is because visibility on the site (and probably at the viewpoint itself) is very likely to be considerably poorer (<5 km) when the lights are operating at that intensity.

6.7.597 The area around the Proposed Development is essentially dark, with the exception of some scattered residential property, relatively distant settlement with streetlights, and intermittent vehicle lights moving along road corridors.

6.7.598 Where existing lights are shown in the photographs such as Viewpoint 5 (New Cumnock), they appear larger and more blurred than those seen to the naked eye in the field when the photographs were captured. The term used in photography to describe this effect is 'Bokeh' which has been defined as 'the way the lens renders out-of-focus points of light', and this phenomenon is difficult to avoid when taking photographs of light in a view. Where the aviation lights of the Proposed Development have been added to the night-time views, this bokeh effect has been emulated, based on the calibration OPEN has experienced elsewhere in its research.

6.7.599 The movement of turbine blades passing in front of the aviation lights on each rotation causes a flickering effect when the lights are activated. The turbines shown in the night-time visualisations have been positioned so that their blades face away from the viewpoint and all of the lights are therefore visible, representing a worst-case impression. The flickering effect caused by the blades interacting with the lights would be most usually apparent from a south westerly direction due to the prevailing south westerly wind.

6.7.600 The lighting represented in the viewpoint visualisations has been calibrated using examples of existing, equivalent, turbine lighting observed in the field in other parts of Scotland, during similar periods of dusk/darkness as captured in the photography for the agreed viewpoints.

6.7.601 The visual assessment of turbine lighting is intended to determine the likely effects that the Proposed Development will have on the visual resource e.g., it is an assessment of the effects of visible aviation lighting on views experienced by people at night. The assessment of visible lighting is solely a visual effect and does not consider effects of aviation lighting on landscape character. This is because the lighting will not be activated at times when there is a clear perception of landscape character, during daylight hours, and will also not affect the physical pattern of elements that constitutes landscape character. This reflects the Scottish Ministers' recent finding in the Crystal Rig IV Wind Farm Public Inquiry.

6.7.602 The turbines in WSI wind farm are not lit at night-time. This means that there is no difference between the comparative baseline scenario and restored baseline scenario in the night-time assessment, in terms of turbine lighting, Therefore, the assessment in this section does not refer to these two scenarios.

Cumulative Assessment of Visible Turbine Lights

6.7.603 There are no visible turbine lights currently operating in the group of wind farms that are in included in the cumulative assessment for the Proposed Development. There are, however, 12 turbines in the consented WSIII wind farm that will have visible lighting and will be seen in conjunction with the Proposed Development. A scenario that includes the lighting of turbines in WSIII has therefore also been considered due to the consented status of this wind farm. A comparative ZTV of the WSIII lit turbines and the Proposed Development lit turbines is shown in Figure 6.9c, and this allows a comparison to be made of where the lights on the Proposed Development turbines will be seen in conjunction with the lights on WSIII turbines, and where the Proposed Development is likely to introduce a new influence of visible turbine lighting.

6.7.604 None of the other consented wind farms that are included in the cumulative assessment will require visible lighting. There are, however, three application stage sites - Cornharrow Variation, Euchanhead and Sanquhar II - that have turbines over 150 m to tip height and are therefore likely to require visible aviation lighting.

Summary of CAA Lighting Requirements

6.7.605 Elements of the Proposed Development that stand at 150 m or greater in height require lighting under Article 222 of the ANO (2016). This requires medium intensity 'steady' red aviation lights (emitting 2,000 cd) to be fitted at the nacelle level of the relevant turbines. It is proposed that visibility sensors are installed on these turbines to measure prevailing atmospheric conditions and visibility range. Should atmospheric conditions (for example an absence of low cloud cover, rain, mist, haze or fog) mean that visibility is greater than 5 km from the Proposed Development, CAA policy permits lights to operate in a lower intensity mode of 200 cd, this being a minimum of 10 % of their capable illumination. If visibility is restricted to 5 km or less by weather conditions, the lights would operate at their full 2,000 cd. As a consequence, a light meeting the minimum required intensity of 750 cd at -1° elevation will be reduced to 75 cd at that elevation angle when the visibility exceeds 5 km. In effect, the CAA policy allows 'dimming' of the lights depending on meteorological conditions, which has the effect of reducing the perceived intensity of light in clear conditions. This dimming has been illustrated in the night-time visualisations, which indicate 2,000 cd and 200 cd intensity at each viewpoint.

6.7.606 A diagrammatic interpretation of the minimum requirements of ICAO/CAP393 based on information provided by a specific bulb manufacturer ('LuxSolar Medium Intensity Obstruction Light') is shown in Plate 1. It illustrates the potential light intensity from a medium-intensity nacelle mounted aviation light, based on the ICAO minimum standard of 2,000 cd minimum average intensity required over +3° beam spread from the horizontal. It also provides illustration of the likely light intensity in poor visibility <5 km (2,000 cd) and clear visibility >5 km (200 cd).

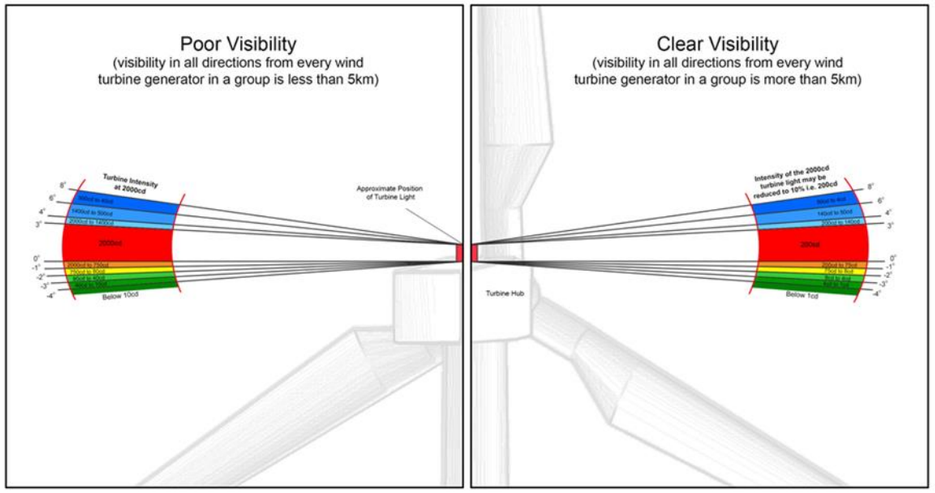


Plate 1 Diagrammatic interpretation of minimum requirements of ICAO/CAP393 (LuxSolar Medium Intensity Obstruction Light)

6.7.607 Note the turbine in the diagram is split vertically in order to illustrate the difference between the light intensity in poor visibility (2000 cd) and clear visibility (200 cd). The turbine light is designed to emit the same light intensity horizontally around 360°.

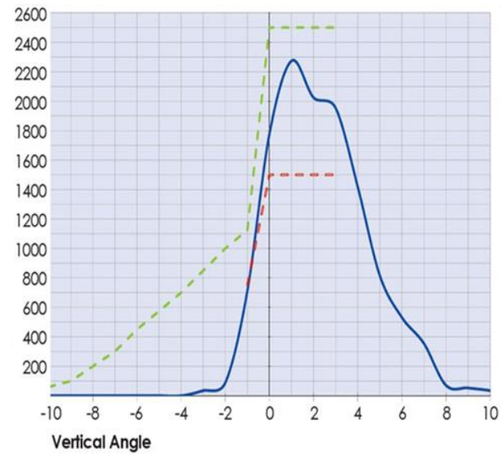
6.7.608 Consideration is given to the potential to reduce or eliminate visible lighting at elevations less than -1° vertical angle from the horizontal plane at the top of the nacelles, where the light is fitted. The ICAO Annex 14 and EASA specifications for 2,000 candela steady red aviation obstruction lights set out the required minimum intensity of the light at different vertical angles of elevation, relative to the lighting horizontal plane, as follows:

- 0°: 1,500 candela; and
- -1°: 750 candela.

6.7.609 The CAA has no specified intensity requirements at elevation angles lower than -1° from the light and it is therefore open to obstacle light manufacturers and the owners/operators of obstacles taller than 150 m to determine the extent of any illumination projected downwards by the light at those lower elevations. This may be achieved by a combination of the internal design of the light lens and the installation of external shielding devices to restrict the downward spread of the light beam using a cowl device. The specific requirements for aviation lighting would be agreed with the relevant stakeholders post-consent and prior to construction.

6.7.610 On the basis of this guidance, it is evident that the actual effect/ perception of visible aviation lights at the Proposed Development will be dependent on a range of factors, including the model and intensity of lights used, the clarity of atmospheric visibility and the degree of negative vertical angle of view from the light to the receptor. For this visual assessment, a worst-case approach is applied which considers the effects of both 2,000 cd lights and 200 cd lights during periods of clear visibility. It should be noted however, that as the required medium intensity lights need only be used to their optimum output or intensity during periods of poor visibility, that 2,000 cd lighting actually represents an unrealistic worst-case position, as it is unlikely to ever be experienced at that maximum illumination level. Similarly, 200 cd is unlikely to be experienced by observers at locations lower than the turbine nacelle heights due to the reduction in light intensity at negative elevation angles from the light.

6.7.611 The graph in Plate 2 illustrates the reduction in intensity that may be experienced at various negative and positive vertical angles, with the horizontal plane of the light fittings being represented by 0° vertical angle. This graph is the performance graph for one particular model of light and whilst the precise model of light to be used is not known at this time, the graph clearly demonstrates the potential effect of negative elevation angle to light intensity.



Emission-candela	
	ICAO ANNEX 14 Medium Intensity Type C: Minimum required intensity
	L864-LXS-C average emission level at 90˚C ambient temperature
	ICAO ANNEX 14 Medium Intensity Type C: Maximum recommended intensity

Plate 2 LuxSolar Medium Intensity Obstruction Light CAP 168 MIOL-C: Data Sheet, January 2018

6.7.612 Figure 6.9d (Lighting Intensity ZTV) illustrates where the vertical angles shown in this graph occur on the landform of the study area, along with the corresponding intensity reductions for each of the 2,000 cd and 200 cd situations. It is clear from Figure 6.9c that the full intensity of the lights would only theoretically be experienced from a small proportion of the study area; that is, where terrain is similarly elevated, or more elevated, than the light fitting (as indicated by the red and orange shading around Blackcraig Hill and Cairnsmore of Carsphairn, for example).

6.7.613 The graph in Plate 2 above shows that the intensity of light emissions reduces as the vertical elevation angle changes. At -10° elevation angle the reduction in intensity would result in a 2,000 cd light being barely perceptible. Adopting the precautionary principle, the worst-case approach in this visual assessment assesses both 2,000 cd and 200 cd intensity of light observed at each of the viewpoints considered. However, it should be noted that the actual light perceived at these locations is likely to be less than assessed or represented in the visualisations. These calculations also do not take account of the potential for some of the emitted light spilling onto the passing blades which would be visible at all negative angles, albeit as a less intense and diffuse reflected glow. The vertical elevation angles for the viewpoints and resultant perceived intensity of light are calculated from Figure 6.9d as follows:

Table 6.8: Viewpoint vertical elevation angles

Viewpoint	Distance to nearest turbine with visible lighting (km)	Vertical Angle from horizontal plane of light location to viewpoint location	Approximate intensity for allowing for vertical angle	
			2000 cd light	200 cd light
Viewpoint 3 Water of Ken	5.08 km	Below -4°	Less than 170 cd	Less than 17 cd
Viewpoint 5 New Cumnock	10.33 km	-2° to -3°	420-220 cd	42-22 cd
Viewpoint 8 Loch Doon	12.64 km	-2° to -3°	420-220 cd	42-22 cd

6.7.614 This table confirms that all of the viewpoints are positioned below 0° vertical angle from the horizontal plane of the light fittings, with none sitting above 0° vertical angle from the horizontal plane.

Lighting Mitigation

6.7.615 In addition to the control measures that may be applied to dim the lighting, as described above, the Applicant will be open to a condition holding them to using new technology such as 'smart' aviation lighting (aviation obstruction lighting detection system). This is where the lights would only be switched on when aircraft approach the turbines. This would include a reduction in the impact of night-time light pollution and extend the life expectancy of the obstruction lights. Such systems are not currently approved in UK airspace at this time, and will require a change in air law to make the carriage of transponders on all aircraft mandatory, but are under evaluation by the CAA.

6.7.616 If this technology could be installed, the level of exposure of visual receptors in the area to turbine lights would be greatly reduced, in line with the amount of time during which passing air traffic would activate the aviation lights. As this technology is not yet approved, the assessment has not considered this mitigation in its conclusions.

Parameters Applied to Visual Night-time Assessment

6.7.617 The following assumptions have been made in relation to the assessment of effects of visible lighting:

- in accordance with CAA requirements the lights will be switched on 30 minutes after official sunset and switched off again 30 minutes before sunrise;
- the CAA requires that all obstacles at or above 150 m above ground level are fitted with visible lighting and in the case of wind turbines, the lights should be located on the nacelle;
- the CAA requires that a secondary light is fitted for use only when the primary light fails and these would not be lit concurrently;
- the 2,000 cd medium intensity lights may be dimmed to 10%, or 200 cd, if visibility is greater than 5 km, i.e. in moderate to excellent or 'clear' visibility;
- the worst-case scenario for night-time effects includes the following parameters:
  - turbines T1, T3, T4, T5 and T7 will have red, medium intensity visible lights mounted on the nacelle;
  - 2,000 cd and 200 cd intensity lights have been assessed representing two worst-case situations: 2,000 cd represents the maximum intensity possible; 200 cd represents the maximum intensity that would be used when visibility exceeds 5 km; and
  - the steady red medium intensity lighting fixed to the top of the nacelles may appear to flicker on and off with blade rotation when the turbine blades pass between the lights and the observer, dependent on wind direction and the position of the observer.

Night-time Assessment of Viewpoint 3 (Water of Ken)

6.7.618 This Proposed Development is assessed to have a medium sensitivity, medium magnitude of change and significant effect on the daytime view from this viewpoint.

Night-time Sensitivity

6.7.619 The sensitivity of this viewpoint is reduced to a **medium-low** level at night-time. This is because the considerations that lead to the medium sensitivity in the daytime are less relevant at night, in terms of both value and susceptibility. The scenic qualities that give the view value in the daytime have very limited visibility at night and the walkers who may gain the view during the day, increasing the level of susceptibility, are very unlikely to be present at night. The viewpoint does not lie within the Dark Sky Park, and there is no reason for people to gather at this point and gain this specific view at night-time.

Night-time Magnitude of Change

6.7.620 Lighting on one turbine (T3) will be visible from 5.08 km away at this viewpoint. The view is currently dark with no apparent lighting, and the one visible light in the Proposed Development will therefore introduce a new influence into the night-time view. The position of the visible light on the prominent, elevated skyline that encloses the valley will increase its effect on the view, as is also found with the presence of the turbines in the daytime view.

6.7.621 However, the magnitude of change arising from the lighting is moderated by the visibility of a single light; the distance of this light from the viewpoint (just over 5 km); and the screening of the lower tower of T3 by landform, which ensures that when the skyline landform is discernible, at dusk and dawn, the light is not seen rising high above the landform but is in a lower, less prominent position.

6.7.622 In the worst-case scenario of 2,000 cd, the night-time magnitude of change on this view will be **medium-high,** due to the introduction of the turbine light on the skyline of a view that is currently characterised by darkness. This view of one light will partially compromise the view of the night sky and may be considered obtrusive.

6.7.623 In the scenario of 200 cd, the magnitude of change will reduce to a **medium** level due to the reduced light source.

6.7.624 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd light would be perceived as less than 170 cd lights and the 200 cd light would be perceived as less than 17 cd lights (See Table 6.8). Should this mitigation be achieved, the magnitude of change arising from the 200 cd light would reduce to a **low** level while the magnitude of change arising from the 2,000 cd light would reduce to a **medium** level.

Significance of Night-time Effect

6.7.625 The night-time effect of turbine lighting on this viewpoint will be moderate and **significant** in the 2,000 cd and 200 cd scenarios due to the factors considered in the medium-low sensitivity of the viewpoint and the medium-high or medium magnitude of change on the view. These combinations of sensitivity and magnitude of change can be either significant or not significant; in this case they are assessed as significant as the single visible turbine light will introduce a light into a view that is currently dark at night.

6.7.626 When potential changes in light intensity due to vertical elevation angle from turbine lights are taken into account, the effect of 200 cd lights would become **not significant** as this would be perceived as less than 17 cd. The effect of the 2,000 cd light would remain **significant**.

Night-time Cumulative Effects

6.7.627 There is no visible lighting on operational, under construction or consented cumulative turbines in this view and cumulative effects will therefore not arise in these scenarios. When application stage wind farms are considered, lighting is likely to be visible on the Euchanhead wind farm turbines that are seen across the head of the valley to the north of the viewpoint at a minimum of 3.4 km away. The addition of the single visible light in the Proposed Development to a scenario that includes Euchanhead would have a **medium-low** night-time cumulative magnitude

of change, arising from the visibility of a further light in a different aspect of the view to that which would be affected by Euchanhead. The cumulative magnitude of change would be moderated by the slightly more distant, less prominent and single light in the Proposed Development.

6.7.628 The night-time cumulative effect will therefore be **not significant** in any scenario.

Night-time Assessment of Viewpoint 5 (New Cumnock)

6.7.629 The Proposed Development is assessed to have a high sensitivity, medium magnitude of change and significant effect at this viewpoint. When consented wind farms are also considered, the magnitude of change reduces to a medium -low level and the effect is not significant.

Night-time Sensitivity

6.7.630 The sensitivity of this viewpoint remains **high** at night-time due to the residential nature of some viewers.

Night-time Magnitude of Change

6.7.631 Lighting on four turbines (T1, T4, T5 and T7) will be visible from a minimum of 10.33 km away at this viewpoint. These four turbines appear in two pairs, with T1 and T5 towards the west and T4 and T7 to the east.

6.7.632 This view is characterised by lighting, including streetlights, lights in properties, and lights from vehicles on the A76 and the visible lights in the Proposed Development will therefore not introduce a new influence into the night-time view, although the lights will introduce illumination to the enclosing upland skyline where no lighting is currently seen. The separation distance between the viewpoint and the Proposed Development will reduce the intensity of the turbine lighting.

6.7.633 The visible lights will form a new feature on the skyline in the night-time view but will be experienced at some distance and within a foreground context of settlement and road lighting that moderates the effect. The very small part of the skyline that will be affected also moderates the effect, as the great majority of the elevated landform will remain unaffected by lighting. In the worst-case scenario of 2,000 cd, the night-time magnitude of change on this view will be **medium-low**, due to the introduction of the four turbine lights onto the dark skyline of a view that is currently characterised by lights only in the foreground. This visibility of lighting will not compromise or diminish the view of the night sky due to the presence of foreground lighting, but will make a minor intrusion to the existing night-time baseline conditions.

6.7.634 In the scenario of 200 cd, the magnitude of change will reduce to a **low** level due to the reduced light source.

6.7.635 Allowing for potential changes in light intensity due to vertical elevation angle from turbine lighting, the 2,000 cd lights would be perceived as 420-220 cd lights and the 200 cd light would be perceived as 42-22 cd lights (See Table 6.8). Should this mitigation be achieved, the magnitude of change arising from the 2,000 cd light would reduce to a **low** level while the magnitude of change arising from the 200 cd light would reduce to a **low-negligible** level.

Significance of Night-time Effect

6.7.636 The effect of turbine lighting at this viewpoint will be a maximum of moderate and **not significant** in both the 2,000 cd and 200 cd scenarios. This is due to the factors considered in the medium-low, low or low-negligible magnitude of change on the view despite its high sensitivity. The combination of high sensitivity and a medium-low magnitude of change can be either significant or not significant; in this case it is assessed as not significant as the turbine lighting is relatively distant, affects a very small part of the skyline, and will be seen in the context of baseline lighting.

Night-time Cumulative Effects

6.7.637 There is no visible lighting on relevant current baseline, predicted baseline or application stage cumulative turbines in this view and cumulative night-time effects will therefore not arise. The night-time cumulative effect will be **not significant** in any scenario.

Night-time Assessment of Viewpoint 8 (Loch Doon)

6.7.638 The Proposed Development is assessed to have a high sensitivity, medium-low magnitude of change and a not significant effect at this viewpoint. When consented wind farms are also taken into consideration, the magnitude of change reduces to a low level and the effect remains not significant.

Night-time Sensitivity

6.7.639 The sensitivity of this viewpoint will reduce slightly to a **medium-high** level at night-time. The viewpoint is located just within the Dark Sky Park buffer zone and this gives it value as well as implying susceptibility to viewers. However, the scenic qualities that give the view value in the daytime have very limited visibility at night, and the majority of people who visit this area for recreational purposes are unlikely to visit at night. It is also not one of the recognised viewing locations in the Dark Sky Park.

Night-time Magnitude of Change

6.7.640 Lighting on four turbines (T3, T4, T5 and T7) will be visible from a minimum of 12.64 km away at this viewpoint. These four turbines appear in two pairs, with T5 and T7 towards the north and T3 and T4 to the south.

6.7.641 The view is currently dark with no apparent lighting, and the visible lights in the Proposed Development will therefore introduce a new influence into the night-time view. The position of the visible lights on the skyline that encloses the valley will increase their effect on the view, as is also found with the presence of the turbines in the daytime view. However, the magnitude of change arising from the lighting is moderated by the visibility of a limited number of the turbine lights and the distance of these lights from the viewpoint. The very small part of the skyline that will be affected also moderates the effect, as the great majority of the elevated landform will remain unaffected by lighting.

6.7.642 In the worst-case scenario of 2,000 cd, the night-time magnitude of change on this view will be **medium-low**, due to the introduction of the four turbine lights into a view that is not characterised by any lighting. This view of lighting will partially compromise the view of the night sky but is not considered obtrusive. In the scenario of 200 cd, the magnitude of change will reduce to a **low** level due to the reduced light source.

6.7.643 Allowing for potential changes in light intensity due to vertical elevation angle from turbine lighting, the 2,000 cd lights would be perceived as 420-220 cd lights and the 200 cd lights would be perceived as 42-22 cd lights (See Table 6.8). Should this mitigation be achieved, the magnitude of change arising from the 2,000 cd light would reduce to a **low** level while the magnitude of change arising from the 200 cd light would reduce to a **low-negligible** level.

Significance of Night-time Effect

6.7.644 The effect of turbine lighting at this viewpoint will be a maximum of moderate and **not significant** in both the 2,000 cd and 200 cd scenarios. This is due to the factors considered in the medium-low, low or low-negligible magnitude of change on the view and the medium-high sensitivity of the viewpoint. A combination of medium-high sensitivity and medium-low magnitude of change can be either significant or not significant; in this case it is assessed as not significant as the turbine lighting is relatively distant and will affect a very small part of the full skyline.

Night-time Cumulative Effects

6.7.645 There is no visible lighting on relevant current baseline, predicted baseline or application stage cumulative turbines in this view and cumulative night-time effects will therefore not arise. The night-time cumulative effect will be **not significant** in any scenario.

Galloway Dark Sky Park

Night-time Baseline and Sensitivity

6.7.646 The Galloway Dark Sky Park lies to the south-west of the Proposed Development. It comprises a core area and a buffer zone, which are a minimum of approximately 17 km and 10 km away from the Proposed Development respectively. The conditions for Dark Sky Park status require stringent lighting guidance for the core area, while the buffer zone is required to protect the status of the core but does not in itself need to reach to the same dark sky class.

6.7.647 Viewpoints 18 (minor road near Shalloch) and 19 (Merrick) are within the Dark Sky Park core, Viewpoint 12 (Forest Drive, Carrick Lane/Loch Doon) is within the buffer zone, and Viewpoints 8 (Loch Doon) and 16 (Meikle Millyea) are on the outer edge of the buffer zone. Viewpoint 11 (Auchenroy Hill) is on the outer edge of the Craigengillan Estate area of the Dark Sky Park.

6.7.648 The Dark Sky Park is considered to have a **high** sensitivity to visible aviation lighting of the type proposed.

Night-time Magnitude of Change

6.7.649 The night-time ZTV (Figures 6.9a and b) shows limited and very intermittent theoretical visibility of the turbine lights from the Dark Sky Park core area, gained from a minimum of over 17 km away. This visibility is concentrated in the north-eastern part of the Dark Sky Park, with the central and southern parts having negligible visibility from over 26 km away. Theoretical visibility from the buffer zone is also very intermittent and limited, gained from a minimum of 10.7 km away and again concentrated in the north-eastern part of the buffer zone.

6.7.650 The viewpoints listed above give an impression of the type of visibility of the Proposed Development that will be gained from those parts of the Dark Sky Park that have a higher level of theoretical visibility of the Proposed Development. When consented wind farms are also considered, the Proposed Development lights will be seen in conjunction with the lighting at WSIII from the two viewpoints that lie within the core area. ,In this scenario the Proposed Development lighting will therefore not introduce a new night-time influence to these views, or notably extend the night-time visibility around the view.

6.7.651 Moreover, the comparative night-time ZTV of the Proposed Development lighting with WSIII lighting (Figure 6.9c) shows that the Proposed Development lights will almost always be seen in conjunction with the current baseline WSIII lights in views from the Dark Sky Park, and in this scenario will thus have a very limited effect on areas that are not already affected by turbine lighting.

6.7.652 Forestry Land Scotland (FLS) promotes ten viewing locations in the DSP buffer zone as points to view the night sky (shown on Figure 6.9a and 6.9b). The sensitivity of the ten viewing locations to the potential effects of the turbine lights is higher than other areas of the DSP, as visitors are likely to come to these locations with the express intention of viewing the night sky, and this experience is susceptible to other sources of light. Of the ten locations promoted by FLS for the DSP, nine will have no visibility of the Proposed Development lighting. The tenth (Location 7, Loch Braden) is shown on Figure 6.9b to have intermittent theoretical visibility of up to five of the lights. However, working wirelines indicate that the areas around the loch from where people may view the night sky are unlikely to gain visibility of more than one light, and even this is limited to very intermittent locations. At just under 20 km away from the Proposed Development, this level of visibility will not have a significant effect on the experience of the night sky at this location.

6.7.653 While people may of course view the night sky from any part of the Dark Sky Park, they would generally tend to use the promoted viewing locations. Moreover, the upland parts of the core area of the Dark Sky Park that gain theoretical visibility of the Proposed Development lights are remote upland areas and are not places where people are likely to go at night-time.

6.7.654 The parts of the core area of the Dark Sky Park that are likely to demonstrate the highest overall darkness are within the lower-lying interior, where the ZTV illustrates that the Proposed Development lighting has negligible visibility. The open and elevated slopes to the north and east where there is theoretical visibility of the Proposed Development lights are more likely to be affected by other exterior lighting influence, including that from settlements and roads.

6.7.655 The magnitude of change on the Dark Sky Park is considered to be **low** due to the distant, intermittent and limited visibility of the Proposed Development lights; the lack of visibility from the nine of the ten recognised viewing locations within the Park and very limited visibility from the tenth location; and the very limited part of the Park that will be affected by any theoretical visibility of the turbine lighting, ensuring that the great majority of it will remain unaffected. When consented wind farms are considered, the visibility of these lights in conjunction with WSIII lighting will also mitigate the additional effects of the Proposed Development lighting.

6.7.656 This low magnitude of change will be found in both the 2,000 cd and 200 cd scenarios.

Significance of Night-time Effect

6.7.657 The effect of turbine lighting on the Dark Sky Park will be moderate/minor and **not significant** in both the 2,000 cd and 200 cd scenarios, due to the factors considered in the low magnitude of change despite the high sensitivity of the receptor.

Night-time Cumulative Effects

6.7.658 There is no visible lighting on the relevant current baseline wind farms. In the predicted baseline, lighting is limited to lights on the taller of the consented WSIII turbines; these will be seen in close association with the Proposed Development and a notable cumulative effect will not arise. When lighting on relevant application stage wind farms is also considered, the close association of the Proposed Development with WSIII and the limited and distant visibility of the Proposed Development lights will ensure that a significant cumulative effect will not arise.

6.7.659 The night-time cumulative effect on the Galloway Dark Sky Park will be **not significant** in any scenario.

Summary of Night-time Effects

6.7.660 The assessment of night-time visual effects for the Proposed Development has predicted a significant effect at one of the three night-time viewpoints, Viewpoint 3 (Water of Ken). This is due to the appearance of a light on an enclosing, upland skyline which is not currently characterised by any other lighting, and will arise in both the 200 cd and 2,000 cd scenarios. However, when dimming mitigation is taken into account, the visual effect of the 200 cd light would result in a not significant effect at this viewpoint.

6.7.661 The effect at the other two night-time viewpoints – Viewpoint 5 (New Cumnock) and Viewpoint 8 (Loch Doon) – will be not significant. This is due largely to the distance of the Proposed Development from the viewpoints, the very small extent of the skyline that will be affected by the lights, and, in the case of New Cumnock, the baseline lighting that is already seen in the view.

6.7.662 The effect of night-time lighting on the Galloway Dark Sky Park is also assessed to be not significant, due to a combination of the very intermittent and limited level of theoretical visibility and the distance of the Proposed Development from the designated area, with the buffer zone of the Park lying a minimum of approximately 10 km away. It is also relevant that the Proposed Development lighting will be theoretically seen from only one of the ten recognised viewing locations within the Park. When consented wind farms are taken into consideration, the Proposed Development lighting will almost always be seen in conjunction with the lights on WSIII turbines.

6.7.663 It is important to note that the assessment of visual effects at night is based on clear night-time viewing conditions, and on the use of 2,000 cd and 200 cd lights at each viewpoint, as shown in the visualisations. This represents a worst-case assessment, and subject to the type and specification of aviation light fitting that is ultimately agreed with the Determining Authority/CAA, it is possible that the intensity of light may be substantially lower, as indicated by the Lighting Intensity ZTV in Figure 6.9d. It is therefore considered that the one identified significant effect may be further mitigated through technical solutions that are subject to ongoing evaluation.

6.7.664 The duration of the effect of the lights on the majority of visual receptors is likely to be over a relatively short period as people who experience views at night are generally limited to residents travelling between rural properties and motorists using the road network. Night-time visual effects are also limited by the activity of receptors at night; views from within properties are likely to be restricted by the use of window coverings, particularly in winter, and properties within settlements are also likely to be affected by baseline lighting of streetlights. Views from remote rural locations, hilltops and footpaths are visited infrequently at night and the number of people affected will be low.

6.8 CONCLUSIONS

6.8.1 The assessment of landscape and visual effects has identified that significant effects are highly localised in nature, with potential for significant effects to arise on:

- the landscape character of the Proposed Development Area itself and surrounding LCTs (all of which are Southern Uplands landscape types) up to a maximum of approximately 6.5 km away, of which some effects will become not significant when consented wind farms are also taken into consideration;
- views from local hilltops at Benbrack (Viewpoint 4), Blackcraig Hill (Viewpoint 2), and Cairnsmore of Carsphairn (Viewpoint 1);
- very intermittent views (including night-time views) from the Water of Ken valley (Viewpoint 3);
- intermittent views from the settlements of Leggate, Connel Park and Bankglen, and New Cumnock (Viewpoint 5); however, when the consented wind farm at Pencloe Forest is also taken into consideration, these effects will be not significant;
- intermittent views from the northern slope of the upland basin that encloses the headwaters of the River Nith (Viewpoint 7); however, when the consented wind farm at Pencloe Forest is also taken into consideration, this effect will be not significant; and
- intermittent views from a stretch of the SUW between Stroanpatrick and Polskeoch and intermittent views from core paths that gain clear and open visibility of the Proposed Development and lie within a maximum of approximately 11 km of the Proposed Development (of which some effects will become not significant when consented wind farms are also taken into consideration).

6.8.2 There will be no significant effects on the roads included in the assessment (including all A-class roads that pass through the study area); national or regional designations such as NSAs, GDLs, RSAs or SLAs; WLAs; and the Galloway Dark Sky Park. There will also be no significant cumulative effects.

6.8.3 The restricted extent of the significant effects is due largely to the location of the Proposed Development and its layout design. This mitigation is summarised below.

- The location of the Proposed Development in an area that is characterised by extensive baseline (operational and consented) wind energy development (including, in the comparative baseline scenario, the WSI turbines on the Proposed Development Area itself) is beneficial as it ensures that the Proposed Development will not introduce a new influence on unaffected areas. Moreover, the Proposed Development has been designed to minimise visibility from areas that are not affected by baseline wind energy development, as can be seen in the cumulative ZTVs with nearby wind farms.
- The location of the Proposed Development within Southern Uplands and Southern Uplands with Forest LCTs is beneficial in that these are large-scale, upland LCTs that are acknowledged to have capacity to accommodate wind energy development (as evidenced by operational and consented development). Moreover, the Proposed Development is located within an extensive area of Southern Uplands LCTs, ensuring that turbines will not encroach, or be perceived as encroaching, into smaller-scale, more complex lowland LCTs, where scale comparisons could arise.
- The location of the turbines within the Southern Uplands also ensures that visibility from principal visual receptors (e.g. A76, A713, settlements) is limited due to landform screening by the large-scale hill landform.
- The Proposed Development has been designed to avoid the appearance of prominent turbines on ridgelines and high points of the site, and this also helps to minimise visibility from visual receptors.
- It is also relevant that the overall trend of the operational, under construction, consented and application stage wind turbines that are in close proximity to the Proposed Development is towards larger turbines. In the comparative baseline scenario, the replacement of the operational WSI turbines, which are considerably smaller than other turbines in the cluster of development, with the Proposed Development turbines will be beneficial as it will reduce the wide variation in turbine sizes that is currently apparent.
- Also in the comparative baseline scenario, the removal of the larger number of operational WSI turbines and replacement with fewer, larger turbines is beneficial as it reduces the visual confusion, clustering and overlapping that is currently seen on the Proposed Development Area. The rotation speed of rotors will also beneficially reduce due to the increased size of the turbines.
- The repowering nature of the development ensures that existing infrastructure is extensively used, minimising the need for new infrastructure. This applies in both the comparative baseline scenario and restored baseline scenario as parts of the existing infrastructure (e.g. access tracks) will be retained in place irrespective of the restoration of the WSI site.