

# 6 Landscape and Visual

## Contents

6.1	Executive Summary	6-1
6.2	Introduction	6-2
6.3	Legislation, Policy and Guidelines	6-3
6.4	Consultation	6-9
6.5	Assessment Methodology and Significance Criteria	6-10
6.6	Baseline Conditions	6-15
6.8	Potential Effects	6-27
6.9	Mitigation	6-58
6.10	Residual Effects	6-59
6.11	Cumulative Assessment	6-60
6.12	Summary	6-73
6.13	References	6-85

## Appendices

6.1	Assessment Criteria
6.2	Information to be Read in Conjunction with Visualisations
6.3	Viewpoint Assessment
6.4	Residential Visual Amenity Study (RVAS)
6.5	Visual Assessment of Turbine Lighting

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# 6 Landscape and Visual

## 6.1 Executive Summary

- 6.1.1 This chapter assesses the effects of the Proposed Development against a theoretical baseline environment (i.e. assuming that the Existing Development has been removed). Notwithstanding this, it is acknowledged that the impact brought about by the Existing Development is a material consideration as part of the decision making process. As such, the chapter also includes a consideration of the difference between the impact of the Proposed Development and the Existing Development.
- 6.1.2 The main findings of the assessment are that there will be some inevitable significant landscape and visual effects upon the baseline environment as a result of the Proposed Development. In terms of landscape effects, if the consented schemes in the vicinity of the site are not considered to form part of the baseline, there would be significant effects upon some landscape character areas within up to 7 km of the proposed turbines. With respect to visual effects, there would be significant effects upon receptors located within just over 9 km of the proposed turbines. However, given the number of consented schemes in the vicinity of the site, it is the assessment of cumulative scenario 1, described below, where a lower level of effect is identified, which is perhaps the most realistic context against which the acceptability of the Proposed Development should be considered.
- 6.1.3 The Residential Visual Amenity Study concludes that although there would be significant visual effects experienced at six of the property groups within 2 km (one of which is owned by the Applicant and financially involved in the Proposed Development) none of these properties would become an unattractive place to live.
- 6.1.4 The assessment of visible turbine lighting has identified that the visible lighting would be screened by landform and topography from much of the surrounding 10km, in particular from large sections of the M74 and A70, with views generally seen in areas where night time lighting is a familiar element of the landscape. There would be the potential for significant effects on the character of the landscape in the immediate vicinity of the site during low-light levels. Additionally, significant effects have also been identified for visual receptors who are not in the vicinity of artificial light sources (such as car headlights, dashboard lights, or bright torches) in the vicinity of the A70 within up to around 3km of the site, in particular the section to the east of Glespin. Such an effect would however only be likely to be experienced by a relatively small number of transient receptors, as it is a sparsely populated area, with few receptors being likely to take in the view in the dark conditions away from artificial lighting.
- 6.1.5 In terms of cumulative effects, the assessment has considered three scenarios. In the first scenario, other consented (but as yet unbuilt) wind farms are taken into account in the baseline against which the effects of the scheme are assessed. These include the recently consented Douglas West, Dalquhandy, Poniel, and Cumberhead wind farms (as well as other consented wind farms in the surrounding landscape). To this end a 'future baseline' image has been included amongst the visual material prepared for each of the assessment viewpoints which illustrates this scenario. The findings of this scenario are that the level of effect identified in the main assessment would generally be reduced once the consented developments in the vicinity of the site are considered. The overall combined impact may well increase, but the level of significance would often occur in any event in the absence of the Proposed Development.
- 6.1.6 In scenario 2 it is not considered that the cumulative effects would be discernibly greater, given the relatively high number of operational and consented schemes considered in cumulative scenario 1. Scenario 3 extends the assessment to consider the scoping stage schemes at Douglas West Extension and the revised Cumberhead wind farm alongside the other consented and proposed schemes considered in scenarios 1 and 2. The effect of these schemes would be to further reinforce the wind farm landscape that is already present in the vicinity of the site.

- 6.1.7 In terms of a comparison with the Existing Development, it is clear that given the increase in size of the turbines there would be some increase in the landscape and visual effects that would arise. However, in the time which has passed since the Existing Development was constructed there have been a number of additional wind energy developments constructed or consented in the vicinity of the site. These schemes have served to establish the presence of modern commercial scale turbines in the local landscape and this context reduces the extent of the additional effects which would arise. The increase in effects between the existing and proposed schemes is therefore relatively limited.
- 6.1.8 Overall, the findings of this LVIA are that the Proposed Development would result in a series of landscape and visual effects, which would be expected with any commercial wind energy development. These effects are however reduced by the context of existing and consented wind energy developments in the vicinity of the site in which the Proposed Development would be located. In terms of the proposed 200 m turbine height, a review was undertaken during the design iteration process which established that the landscape had the capacity to accommodate turbines of this height without giving rise to effects on character or visual amenity that would greatly exceed those of the 150 m turbines consented in the immediate vicinity.
- 6.1.9 Whilst the LVIA identified some significant landscape and visual effects it is considered that the landscape has the capacity to accommodate the effects identified, particularly when the consented but as yet unbuilt wind farms are taken into account in the baseline.

## 6.2 Introduction

- 6.2.1 This chapter presents a Landscape and Visual Impact Assessment (LVIA) of the Proposed Development. The purpose of an LVIA when undertaken in the context of an Environmental Impact Assessment (EIA) is to identify any likely significant landscape and visual effects arising as a result of the Proposed Development. An LVIA must consider both:
- effects on the landscape as a resource in its own right (the landscape effects); and
  - effects on specific views and visual amenity more generally (the visual effects).
- 6.2.2 Therefore, this LVIA considers the potential effects of the Proposed Development upon:
- individual landscape features and elements;
  - landscape character;
  - specific views; and
  - people who view the landscape.
- 6.2.3 In this chapter, landscape and visual effects are assessed separately although the procedure for assessing each of these is closely linked.
- 6.2.4 The main objectives of the landscape assessment can be summarised as follows:
- to identify, evaluate and describe the baseline landscape character of the site and its surroundings and also any notable individual landscape features within the site;
  - to determine the nature of the landscape receptor (*i.e.* the sensitivity of the landscape) through a consideration of its susceptibility to the type of development proposed and any values associated with it;
  - to identify and describe any impacts of the development in so far as they affect the landscape resource;
  - to evaluate the nature of the landscape effects (*i.e.* the magnitude, duration and reversibility of the effect);

- to identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for landscape effects;
  - to evaluate the relative significance of residual landscape effects; and
  - to determine which landscapes effects, if any, are significant.
- 6.2.5 The main objectives of the visual assessment are similar and can be summarised as follows:
- to identify, evaluate and describe the baseline visual context of the site and its surroundings with a focus on both specific views and the more general visual amenity experienced by people who have views of the site;
  - to determine the nature of the visual receptor (*i.e.* the sensitivity of the viewpoint or person whose visual amenity is affected) through a consideration of the susceptibility of the viewpoint/person to the type of development proposed and any values associated with either the viewpoint or visual amenity experienced;
  - to identify and describe any impacts of the development in so far as they affect a viewpoint or views experienced;
  - to evaluate the nature of the visual effects (*i.e.* the magnitude, duration and reversibility of the effect);
  - to identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for visual effects;
  - to evaluate the relative significance of residual visual effects; and
  - to determine which visual effects, if any, are significant.
- 6.2.6 The LVIA also considers any cumulative landscape and visual effects which may arise as a result of the Proposed Development in conjunction with other wind farm developments.
- 6.2.7 The main LVIA presented in this chapter is supported by Figures in EIA Report Volume 2, Appendices in Volume 3 and Visualisations in Volume 4.
- 6.2.8 The location of the Proposed Development and the study area for the LVIA is illustrated on Figure 6.1. For reference, other operational, consented and proposed wind farms within 35 km which are referred to throughout this chapter are illustrated on Figures 6.2 and 6.3.

## 6.3 Legislation, Policy and Guidelines

### **Legislation**

#### **European Landscape Convention**

- 6.3.1 The European Landscape Convention (ELC) is the first international convention to focus specifically on the landscape as a resource in its own right. The convention promotes landscape protection, management and planning, as well as European co-operation on landscape issues. Signed by the UK Government in February 2006, the ELC became binding from March 2007. It applies to all landscapes, towns and villages, as well as open countryside; the coast and inland areas; and ordinary or even degraded landscapes, as well as those that are afforded protection.
- 6.3.2 The UK Government has stated that it considers the UK to be compliant with the ELC's requirements and in effect the principle requirements of the ELC are already enshrined in the existing suite of national policies and guidance on the assessment of landscape and visual effects.
- 6.3.3 The ELC defines landscape as:

*'An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.'* (Council of Europe 2000)

- 6.3.4 It is important to recognise that the ELC does not require the preservation of all landscapes although landscape protection is one of the core themes of the convention. Equally important though is the requirement to manage and plan future landscape change.
- 6.3.5 The ELC highlights the importance of developing landscape policies dedicated to the protection, management and planning of landscapes. In this regard, South Lanarkshire Council has a suite of landscape character assessment and landscape capacity studies which enables decisions to be made with due regard to landscape character as promoted by the ELC.

### ***Planning Policy***

- 6.3.6 The following current planning policy documents were reviewed as part of the desk study for the LVIA:
- National Planning Framework for Scotland 3 (NPF3) (2014);
  - Scottish Planning Policy (SPP) (2014);
  - Glasgow and Clyde Valley Strategic Development Plan (2012);
  - South Lanarkshire Local Development Plan (2015); and
  - South Lanarkshire Local Development Plan Supplementary Planning Guidance 10: Renewable Energy (2016).
- 6.3.7 The following technical reports which provide the evidence base for the current policy were reviewed:
- South Lanarkshire Landscape Character Assessment (2010);
  - South Lanarkshire Validating Local Landscape Designations (2010); and
  - South Lanarkshire Landscape Capacity for Wind Farms (2016).
- 6.3.8 A full and detailed consideration of national and local planning policy is contained in Chapter 5 of this ES and in the accompanying Planning Statement. This section provides an overview of the local policies and designations of particular relevance to the landscape and visual issues considered in this chapter.

### **Local Policy**

#### *South Lanarkshire Local Development Plan (2015)*

- 6.3.9 Policy 4 (Development and placemaking) of the Local Development Plan (LDP) states that *'All development proposals will require to take account of and be integrated with the local context and built form. Development proposals should have no significant adverse impacts on the local community and where appropriate, should include measures to enhance the environment as well as address the six qualities of placemaking'*. The policy goes on to provide a long list of requirements that the Council will ensure including:
- 'There is no significant adverse impact on landscape character, built heritage, habitats or species including Natura 2000 sites, biodiversity and Protected Species nor on amenity as a result of light, noise, odours, dust or particulates.'*
- 6.3.10 Policy 15 (Natural and historic environment) of the LDP states that *'The Council will assess all development proposals in terms of their effect on the character and amenity of the natural and built environment.'* The policy further states that *'The Council will seek to protect important natural and historic sites and features...from adverse impacts resulting from development, including cumulative impacts'*. The policy goes on to provide a list and a table of Category 1, 2 and 3 sites as shown on the proposals map. Category 1 sites re international designations such as World Heritage Sites, Category 2 sites are of national importance and include Gardens and Designed Landscapes, and

Category 3 sites are locally important designations including Special Landscape Areas, Core paths and Rights of Way and Country Parks.

- 6.3.11 Policy 19 of the LDP deals with renewable energy. The policy states that *'Applications for renewable energy infrastructure developments will be supported subject to an assessment against the principles set out in the 2014 SPP, in particular, the considerations set out at paragraph 169 and additionally, for onshore wind developments, the terms of Table 1: Spatial Frameworks.'* The policy goes on to refer to statutory supplementary guidance which is discussed further below.
- 6.3.12 Table 1: Spatial Frameworks as set out in SPP establishes a three stage process for developing a spatial framework for onshore wind farms. The first stage requires the identification of 'Areas where Wind Farms will not be Acceptable'. The only designations that fall within this category (Group 1) are National Parks and National Scenic Areas, neither of which are applicable to the Proposed Development site.
- 6.3.13 The second stage requires the identification of 'Areas of Significant Protection'. Within these areas (Group 2) SPP states *'Recognising the need for significant protection, in these areas wind farms 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.'* Notably local landscape designations such as SLAs do not fall within Group 2. None of the other designations or 'Other nationally important mapped environmental interests' are applicable to the Proposed Development site.
- 6.3.14 Table 1 in SPP does permit Councils in drafting spatial frameworks to include community separation for consideration of visual impact and states that the Areas of Significant Protection (Group 2) may include *'an area not exceeding 2km around cities, towns and villages identified on the local development plan with an identified settlement envelope or edge. The extent of the area will be determined by the planning authority based on landform and other features which restrict views out from the settlement.'* Critically however, this does not indicate that development within 2 km of settlements should be prohibited. It is recognised that the Proposed Development site does fall within 2 km of a settlement, namely Glespin. This matter is discussed further below and within the accompanying Planning Statement.

*South Lanarkshire Local Plan – Supplementary Planning Guidance 10: Renewable Energy (2016)*

- 6.3.15 The South Lanarkshire Local Development Plan – SPG 10: Renewable Energy was adopted in 2016 and includes a Landscape Capacity Study for Wind Turbines, February 2016.
- 6.3.16 The Spatial Framework within the adopted Renewable Energy SPG identifies the Proposed Development site as being located within an *Area with Potential for Wind Energy Development*. Part of the site is located within the Douglas Valley Special Landscape Area (SLA), as illustrated on *Map 2 – Development Management Considerations for Renewable Energy*. The SPG states the following in relation to SLA's:
- 'Any applications for wind energy development within or around SLAs should not have a significant adverse effect on the landscape character, scenic interest and special qualities and features for which the area has been recognised as described in Validating Local Landscape Designations report (2010).'*
- 6.3.17 SPG *Map 2 - Development Management Considerations* does identify the site as partly lying within an Area of Significant Cumulative Development (Area 7), which is derived from the Landscape Capacity Study 2016. Area 7 of the Area of Significant Cumulative Development relates to the north western portion of the site as it passes to the north of the coniferous plantation adjacent to the site.

6.3.18 The SPG states the following with regards to Area 7:

<i>Description</i>	<i>Key Development Guidance/Criteria</i>
<p><i>An area of Rolling Moorland and Plateau Farmland between Douglas Water and the Nethan Valley with over 85 turbines in four wind farms: the operational Hagshaw Hill and Nutberry wind farms together with the consented Galawhistle and Dalquhandy wind farms. These wind farms create an area of Wind Turbine Landscape.</i></p>	<p><i>1. Avoid coalescence with cumulative area 6 by limiting developments in the intervening areas of Upland River Valley (River Nethan), Rolling Moorland. Plateau Farmland and Plateau Moorland.</i></p> <p><i>2. Limit further significant extension of the cumulative area into adjacent Upland River Valley (Douglas Water) landscape to the south and southeast</i></p> <p><i>3. Give careful consideration to the position, scale and cumulative effects of developments close to the surrounding settlements including Coalburn and Douglas.</i></p>

6.3.19 The SPG then goes on to set out the requirements for cumulative impact assessments as follows:

*‘Requirements for Cumulative Impact Assessments*

*Four or more turbines:*

- All applications for four or more wind turbines must contain a cumulative landscape and visual impact assessment prepared in accordance with current SNH guidance (see Appendix 6.1).

35 km cumulative study area - for all developments with four or more turbines.

To include single, two and three turbine development (above 15 metres in height) up to a 10 km radius of the proposed development (to be agreed with the planning authority).

*Single/small scale developments (up to three turbines).*

*All cumulative landscape and visual impact assessments must include all operating and consented schemes and those that are the subject of valid but undetermined applications. Assessments must consider where appropriate, sequential effects that may extend beyond the Council area.’*

6.3.20 The SPG also sets out the Council’s requirements in relation to residential amenity surveys as follows:

*‘The residential visual amenity survey should assess the impact of the proposal from the following parameters:*

- *distance of the property from the development*
- *extent of the development in the view from the property*
- *angle of view in relation to orientation of the property*
- *proportion of the view from the property occupied by the development*
- *local context in which the development is seen*
- *extent of other built development visible from the property, in particular vertical elements*
- *screening effect of intervening landscape elements such as local landform and vegetation (woodland tree cover and hedges).*

*The residential visual amenity survey and assessment should be undertaken in accordance with best practice guidance: ‘Guidelines for Landscape and Visual Assessment, 3rd Edition’.*

6.3.21 Section 7 of the SPG sets out the assessment checklist for renewable energy developments. Policy RE2 - *Renewable energy developments*, sets out the requirements for renewable energy development applications which should be in accordance with the Development Management considerations and the content of the checklist at Table 7.1 of the SPG, which relates to SPP 2014 Spatial Frameworks for Windfarms. Table 7.1 includes criteria such as landscape and visual impacts, cumulative impacts, and residential visual amenity.

*South Lanarkshire Landscape Capacity for Windfarms (2016)*

6.3.22 The *South Lanarkshire Landscape Capacity for Windfarms (2016)* was produced to inform the South Lanarkshire Renewable Energy SPG (2016).

6.3.23 The study makes reference to landscape character types and areas defined through *the South Lanarkshire Landscape Character Assessment (2010)*.

6.3.24 As the title suggests, the *Landscape Capacity for Windfarms* report attempts to determine the capacity of 15 landscape character types across South Lanarkshire in relation to onshore wind farm development.

6.3.25 The landscape capacity judgements for each character area contained within the reports are noted and considered further in this LVIA as part of the appraisal of landscape sensitivity.

6.3.26 The key settlements, transport routes and important viewpoints identified on *Figure 4.1* of the report are recognised as potential visual receptor locations and discussed as necessary in the LVIA.

*Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance (September 2017)*

6.3.27 Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance, September 2017 (TWT 2017) forms an Addendum to *Landscape Capacity for Windfarms (2016)* and provides further information on landscape capacity for turbines taller than 120m to blade tip, which was the limit of the assessment in the 2016 document. The TWT 2017 provides brief guidelines with regards to the location of tall turbines (defined as 120m to 200m) but does not provide guidance on landscape sensitivity. Notably in relation to repowering the guidance states that:

*‘Most of the areas in which the [tall] turbines could be most comfortably located either already host substantial wind energy development, or have similar developments consented. Turbines vary between 55m and 149.9m height. The addition of larger turbines could therefore often be, or at least perceived as, an extension to an operational or consented windfarm, or would be a repowering exercise, replacing existing turbines at the end of their commercial or consented life’.*

6.3.28 From the review of the overarching characteristics and sensitivity of the landscape in the area around the site, it is considered that the landscape in which the Proposed Development would be located does have capacity to accommodate further wind energy development of the type proposed. This matter is considered in further detail through the assessment of landscape character set out within this LVIA.

*Technical Report - South Lanarkshire Validating Local Landscape Designations (2010)*

6.3.29 Whilst not a policy document, the above technical report is noted as it provides the evidence base for the local landscape designations in South Lanarkshire. The study undertaken by Ironside Farrar in 2010 sought to validate the local landscape designations in South Lanarkshire and refine as necessary boundaries to the designations.

6.3.30 Of particular relevance to this LVIA is Part 4 of Chapter 6 in which the Douglas Valley Special Landscape Area (SLA) is defined. It is recognised that the Proposed Development site boundary falls within the western part of this SLA, as shown in Figure 6.4.

6.3.31 It is also recognised that the Middle Clyde Valley SLA, Upper Clyde Valley and Tinto SLA and the Leadhills and Lowther Hills SLA all lie between 5 km and 10 km of the Proposed Development site.

6.3.32 The SLA designations are discussed further in relation to the Baseline Conditions (Section 6.5) of this LVIA.

## ***Landscape Designations***

- 6.3.33 Landscape designations within 20 km of the Proposed Development site with specific geographical limits are illustrated at Figure 6.4.

### **National/International Landscape Designations**

#### *World Heritage Sites*

- 6.3.34 Located approximately 13 km to the north-east of the site is the New Lanark World Heritage Site. New Lanark is a small 18<sup>th</sup> century cotton mill village, recently restored and designated as a World Heritage Site in 2001. The World Heritage Site lies largely outside of the Zones of Theoretical Visibility (ZTV).

#### *National Parks*

- 6.3.35 There are no national landscape designations covering the site. The nearest National Park is the Loch Lomond and Trossachs National Park, which is located approximately 61 km to the north-west of the site. At this distance, no effects will be experienced from this designated landscape.

### **Local Landscape Designations**

#### *Regional Scenic Areas*

- 6.3.36 The closest Regional Scenic Area within the Dumfries and Galloway Council area to the Proposed Development site, is the Thornhill Uplands, located approximately 13.3 km to the south.

#### *Special Landscape Areas*

- 6.3.37 There are three Special Landscape Areas (SLAs) within the South Lanarkshire Council area which fall within 10 km of the Proposed Development site. The Proposed Development site boundary falls within the western part of the Douglas Valley SLA, as shown in Figure 6.4.
- 6.3.38 It is also recognised that the Middle Clyde Valley SLA, Upper Clyde Valley and Tinto SLA and the Leadhills and Lowther Hills SLA all lie between 5 km and 10 km of the Proposed Development.

#### *Sensitive Landscape Areas*

- 6.3.39 The closest Sensitive Landscape Area identified within the East Ayrshire administrative area is the Southern Uplands SLA, which falls approximately 3.3 km to the west of the Proposed Development site.

#### *Conservation Areas*

- 6.3.40 There are two conservation areas within 10 km of the Proposed Development site. These are: Douglas, located approximately 3.2 km to the east and Lesmahagow located approximately 8.5 km to the north.
- 6.3.41 It is also noted that there are further conservation areas between 10 km and 20 km of the Proposed site. These are at Strathaven and Stonehouse to the north-west, Lanark and New Lanark to the northeast, and Sanquhar, Wanlockhead and Leadhills to the south.
- 6.3.42 Conservation Areas are referenced in this chapter as an indicator of townscape character and value associated with tracts of landscape. The LVIA also takes into consideration the visual effects as experienced by people within relevant Conservation Areas. This chapter does not, however, consider the effect on their setting in heritage terms as this is discussed as necessary within the Chapter 10 Historic Environment of this EIA Report.

#### *Registered Parks and Gardens*

- 6.3.43 There are three registered Historic Gardens and Designed Landscapes within 20 km of the site namely, the Falls of Clyde located approximately 12.6 km to the north-east, Lee Castle, located approximately 14.8 km to the north, and Scot's Mining House Company, located approximately

17.1 km to the south-east of the Proposed Development. Scot’s Mining House Company lies outside of the ZTV and is not discussed further within the LVIA.

### **Guidelines**

- 6.3.44 The primary source of best practice for LVIA in the UK is:
- *The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3)* (Landscape Institute and the Institute for Environmental Management and Assessment, 2013).
- 6.3.45 The LVIA presented in this chapter has been undertaken in accordance with the principles established in this document. It must however be acknowledged that GLVIA3 establishes guidelines not a specific methodology. The preface to GLVIA3 recognises that:
- ‘This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.’*
- 6.3.46 The methodology for this assessment has therefore been developed specifically for this LVIA to ensure that it is appropriate and fit for purpose.
- 6.3.47 Consideration has also been given to the following documents:
- *An Approach to Landscape Character Assessment*, (2014) Natural England;
  - *Guidelines for Landscape Character Assessment*, (2002) Countryside Agency and Scottish Natural Heritage (SNH);
  - *Landscape Character Assessment Guidance for England and Scotland: Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity*, (2002) The Countryside Agency and Scottish Natural Heritage (SNH);
  - *Assessing the Cumulative Impact of Onshore Wind Energy Developments* (March 2012) SNH;
  - *Siting and Design of Wind farms in the Landscape, Version 3* (February 2017) SNH;
  - *Visual Representation of Wind farms – Version 2.2* (February 2017), SNH;
  - *LI Advice Note 02/17 Visual representation of development proposals* (March 2017) Landscape Institute; and
  - *LI Advice Note 01/11 Photography and Photomontage in Landscape and Visual Impact Assessment*, (2011) Landscape Institute.
- 6.3.48 It is also noted that SNH published a consultation draft document ‘Assessing the Impact of repowered wind farms on nature’ in June 2018. This reiterates that LVIA for repowering applications should use the current guidance, as set out above, but includes some further suggested techniques which are specific to repowering schemes, albeit with the acknowledgement that their advice may evolve in response to future repowering experience.

## **6.4 Consultation**

- 6.4.1 Consultation in respect of the proposed methodology and assessment viewpoints for the LVIA has been undertaken at various stages in the evolution of the Proposed Development.
- 6.4.2 Initial pre-application discussions were held with both South Lanarkshire Council (SLC) and the Energy Consents Unit (ECU) at the Scottish Government in respect of the Proposed Development. An LVIA Scoping document (refer to Appendix 4.1) was then prepared and issued to SLC, ECU and Scottish Natural Heritage (SNH) on 1 August 2018. A further pre-application consultation meeting was subsequently held with SLC, ECU and SNH on 7 August 2018, to discuss the proposed scope of the LVIA, including the proposed viewpoints. East Ayrshire Council (EAC) were also consulted on the LVIA scope, methodology and viewpoints proposed.

- 6.4.3 In respect of the proposed viewpoints, it is noted that the proposed study areas and assessment viewpoint locations were informed by previous consultation held in relation to the consented Douglas West Wind Farm. As a consequence of this, there was only one additional daytime assessment viewpoint requested by the consultees, at the junction of the A70 and Station Road, in Douglas. This was included as viewpoint 17.
- 6.4.4 Regarding the night time assessment (refer to Appendix 6.5), one further visualisation location was requested by East Ayrshire Council in Muirkirk. This location was added in addition to the previously proposed locations in Douglas and Coalburn.

## 6.5 Assessment Methodology and Significance Criteria

### ***Types of Impact Considered in the LVIA***

- 6.5.1 The LVIA assesses both the long term effects relating to the operational lifetime of the Proposed Development and also the short term temporary effects associated with the construction and ultimate decommissioning of the Proposed Development.
- 6.5.2 Where appropriate, the LVIA also considers any residual effects once the proposed wind turbines have been decommissioned and removed (assumed to be 30 years from the date of completed construction).
- 6.5.3 The LVIA considers both direct and indirect landscape and visual effects. It not only assesses the impacts associated with the turbines but also any related impacts resulting from the construction compound, underground cabling, site tracks, substation and battery storage compound, and access roads.
- 6.5.4 Consideration has been given to seasonal variations when assessing the visibility of the Proposed Development.
- 6.5.5 The LVIA also considers any cumulative and in combination effects arising in conjunction with other wind farm schemes in the study area defined below. Best practice guidelines identify two principal types of cumulative visual impact:
- Combined visibility – where the observer is able to see two or more developments from one viewpoint;
  - Sequential visibility – where two or more sites are not visible at one location, but would be seen as the observer moves along a linear route, for example, a road or public right of way.
- 6.5.6 The guidelines state that ‘combined visibility’ may either be ‘in combination’ (where two or more sites are visible from a fixed viewpoint in the same arc of view) or ‘in succession’ (where two or more sites are visible from a fixed viewpoint, but the observer is required to turn to see the different sites). Both types are discussed in this LVIA. The published GLVIA3 also indicates a difference in emphasis between sequential effects that are frequent and those which are occasional.
- 6.5.7 In relation to both the effects of the addition of the Proposed Development to the landscape on its own, and the cumulative effects with other wind farm schemes in the study area, both beneficial (positive) and adverse (negative) effects are considered. Wind farms give rise to a wide spectrum of opinions, ranging from strongly negative to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. This spectrum of opinion has come to be referred to in relation to wind farms as the concept of valency. For the avoidance of doubt, in considering the effects of the Proposed Development, a precautionary approach to the assessment has been adopted and it is assumed that, unless specifically stated otherwise, the effects of the proposal will be adverse in nature even though it is acknowledged that, for some people, the impacts could be considered to be beneficial.

### ***Setting the Baseline against which Effects are Assessed***

- 6.5.8 For the purposes of clarification, it is helpful to set out the baseline against which the Proposed Development is assessed.
- 6.5.9 Notwithstanding that the site currently includes the Existing Development comprising 26 turbines up to 55 m to blade tip, this LVIA considers the Proposed Development against a ‘future baseline’ landscape in which these turbines are removed (i.e. as an undeveloped site) as recommended by the recent SNH draft guidance on repowering (‘Assessing the Impact of repowered wind farms on nature’, June 2018). However, in the case of this repowering proposal it is important to note that the Hagshaw Hill Extension turbines (9 no to the west and 11 no to the east of the Existing Development at 80 m to tip) would still remain operational on either side of the Existing Development site for many years beyond the decommissioning of the Existing Development (until at least 2033). Therefore, decommissioning and restoration of the Existing Development site would not lead to a “vacant hillside” scenario in this case. This matter is discussed further in the forthcoming assessment.
- 6.5.10 In addition, a summary is also provided at Table 6.8 which compares the LVIA findings in relation to the Proposed Development with those of the Existing Development, which it is understood is a separate, but material consideration, in relation to the decision making process.
- 6.5.11 In terms of cumulative assessment, the LVIA adopts the approach advocated in *paragraph 7.13* of GLVIA3 which indicates that existing schemes and those under construction should be considered as part of the baseline against which the scheme is assessed. As such, the cumulative impact assessment therefore extends the assessment, firstly to include consented schemes that have yet to be constructed, secondly to include other schemes that have not yet been granted consent but are the subject of a formal planning application, and thirdly to include a separate consideration of the nearby scoping stage scheme at Douglas West and the revised scheme at Cumberhead.

### ***Study Area***

- 6.5.12 The extent of the primary study area for the landscape and visual impact assessment has been taken to be a 35 km radius from the site in all directions. The extent of this study area is illustrated in Figure 6.1. Initial site work informed by analysis of preliminary ZTVs however, indicated that significant landscape and visual effects are likely to occur within a much narrower radius from the site than this and therefore the level of assessment work in this LVIA incrementally decreases with distance from the site with the greatest focus of assessment being within broadly 15 km of the site. The intention is that the detail of the LVIA remains proportional to the likely significance of effects as advocated in GLVIA3.
- 6.5.13 In terms of cumulative effects, the intention has again been that assessment work is proportional to the likelihood of significant effects arising. The approach adopted in the cumulative LVIA has been to focus on other wind farms which are either operational, under construction, consented or the subject of a full planning application and which have the potential to give rise to significant cumulative effects when considered in combination with the Proposed Development. Rather than simply considering every other wind farm within a set distance of the Proposed Development, the approach has been to focus the assessment on those sites which genuinely have the potential to given rise to significant cumulative effects. Further details of this approach are set out in the cumulative impact assessment (Section 6.10) of the LVIA.

### ***Landscape Assessment Methodology***

- 6.5.14 A baseline landscape assessment was carried out to determine the current features and character of the landscape within and surrounding the site.
- 6.5.15 The baseline landscape assessment involved firstly a review of desk material including:
- Ordnance Survey maps at 1:250,000; 1:50,000; 1:25,000 and 1:10,000 scales;
  - Aerial photographs of the site and surrounding area;

- Topography;
  - Current & historical land use;
  - Geology and soil maps;
  - Historic Parks and Designated Landscapes;
  - Relevant planning policy;
  - Relevant landscape sensitivity/capacity studies;
  - Relevant landscape character assessments; and
  - Relevant Historic Landscape Character Assessments.
- 6.5.16 Field visits have been conducted in a variety of weather conditions and at different times of the year throughout the application process of the Proposed Development and as part of earlier work in relation to the consented Douglas West Wind Farm. Surveys have been undertaken between June and July 2012, between March and May 2015, during June 2017 and during July and August 2018.
- 6.5.17 The baseline assessment identified the existing landscape features on the site, and in the immediate vicinity, and how these elements combine to give the area a sense of landscape character. Plans and construction details of the Proposed Development were used to determine the impacts of the scheme on landscape features and character.
- 6.5.18 The LVIA firstly assesses how the Proposed Development would impact directly on any existing landscape features or elements (e.g. removal of trees etc.).
- 6.5.19 The LVIA then considers impacts on landscape character with reference to landscape character areas/types identified in published landscape character documents.
- 6.5.20 The relative significance or level of effect on landscape features and character is determined by considering in tandem the nature (sensitivity) of the feature or character with the nature (magnitude) of change. The assessment criteria used to determine sensitivity and magnitude are set out in Appendix 6.1. A professional judgement is then provided as to whether the effect is significant or not. The effects which are identified as significant are those which, in the opinion of the professional assessor are likely to be most material in the decision making process.

### ***Visual Assessment Methodology***

- 6.5.21 Potential visual receptors of the Proposed Development were identified by interpretation of digitally generated ZTVs (see Table 6.1 for an explanation of ZTVs and how they were produced).
- 6.5.22 A selection of viewpoints was chosen and agreed with statutory consultees to represent a range of views and viewer types as discussed in *Visual Representation of Wind farms – Version 2.1* (SNH, December 2014) and in *Paragraphs 6.16-6.20* of GLVIA3.
- 6.5.23 The viewpoints cover a variety of different character areas, are in different directions from the site and are at varying elevations. Some of the viewpoints are intended to be representative of the visual experience in a general location whereas other viewpoints illustrate the view from a specific or important vantage point. The viewpoints are located at a range of distances from the Proposed Development to illustrate the varying magnitude of visual impacts.
- 6.5.24 Visualisations were produced for each of the viewpoints; these are presented in ES Volume 4. An explanation of how they were produced and information to be read in conjunction with the visualisations is provided in Appendix 6.2.
- 6.5.25 Each of the representative viewpoints was visited to gain an understanding of the sensitivity of the viewpoint receptors and to make professional judgements on the likely visual effects arising from the Proposed Development. Furthermore, the entire extent of the study area was visited to appreciate visibility of the development as receptors move throughout the landscape.

- 6.5.26 The viewpoints were used as the starting point for considering the effects on visual receptors within the entire study area. The visual assessment does not rely solely on the viewpoint assessments to determine the significance of effects on different visual receptor groups throughout the study area. It should be recognised that the viewpoints illustrated in the LVIA simply represent a series of 20 snapshots from a small selection of the locations within the study area from where the Proposed Development will be visible. Following the viewpoint assessment, the LVIA considers the effect on visual amenity throughout the study area with reference to different visual receptor groups at varying distances from the site.
- 6.5.27 The relative significance or level of effect on views and visual amenity is determined by considering in tandem the nature (sensitivity) of the visual receptor with the nature (magnitude) of change. The assessment criteria used to determine sensitivity and magnitude are set out in Appendix 6.1. A professional judgement is then provided as to whether the effect is significant or not. The effects which are identified as significant are those which, in the opinion of the professional assessor, are likely to be a material consideration in the decision making process.

**Table 6.1 - Production of ZTVs**

<b>Production of Zone of Theoretical Visibility (ZTV) Maps</b>
<p>A Zone of Theoretical Visibility (ZTV) illustrates the extents from which a feature would theoretically be visible within a defined study area.</p> <p>ZTVs are generated assuming a 'bare ground' terrain model. This means that the ZTVs presented within this LVIA have been generated from topographical data only and they do not take any account of vegetation or the built environment which may screen views of the development. It is, as such, a 'worst case' zone of visual influence and considerably over-emphasises the actual visibility of the proposed scheme. In reality trees, hedges and buildings may restrict views of the development from many of the areas rendered as within the ZTV.</p> <p>A further assumption of the ZTV is that climatic visibility is 100 % (<i>i.e.</i> visibility is not impeded by moisture or pollution in the air). In reality, such atmospheric conditions are relatively rare in this part of the country. Mist, fog, rain and snow are all common weather occurrences, which would regularly restrict visibility of the development from some of the areas within the ZTV; this being an incrementally more significant factor with distance from the site. Atmospheric pollution is not as significant as it is in other parts of the country but is still present and would also restrict actual visibility on some occasions, again more so with distance from the site.</p> <p>The ZTVs were generated using Resoft WindFarm. The programme used topographical height data (OS Terrain 50) to build a terrain model. The programme then renders the model using a square grid to illustrate whether the turbines would be visible in each 50 m x 50 m square on the grid for a specified distance in every direction from the site.</p> <p>Digital ZTVs have been prepared to illustrate the theoretical visibility of the turbine for a radius of 35 km around the site. Two sets of ZTVs have been produced, the first shows visibility of the turbines at hub height and the second shows visibility of the turbines to blade tip when the blade is at its highest possible position. Enlargements of the ZTVs have also been produced.</p> <p>Cumulative ZTVs have been produced to show locations where the ZTVs of two or more operational, consented or proposed wind turbine sites overlap (in certain cases a number of wind farms which are at the same stage in development have been grouped together). In the cumulative ZTVs one colour has been used to illustrate the theoretical visibility of the Proposed Development and a second colour to illustrate the visibility of a second site. Where the ZTVs of the two sites overlap a third colour has been used to illustrate this potential cumulative visual influence.</p> <p>It should be noted that there are several limitations to the use of ZTVs. For a discussion of these limitations please refer to <i>Visual Representation of Wind farms – Version 2.1</i> (SNH, 2014). In particular, it should be noted that the ZTV plans simply illustrate theoretical visibility and do not imply or assign any level of significance to those areas identified as being within the ZTV. The ZTVs</p>

### Production of Zone of Theoretical Visibility (ZTV) Maps

are a tool to assist the Landscape Architect to identify where the site would potentially be visible from. The assessment of landscape and visual effects in this chapter does not rely solely on the accuracy of the ZTVs. The ZTVs have been ground proofed and professional judgement has been used to evaluate the significance of effects.

### **Assessment Criteria**

- 6.5.28 The purpose of an LVIA when produced in the context of an EIA is to identify any significant landscape and visual effects within the study area to assist the determining authority in deciding the acceptability of the scheme under consideration.
- 6.5.29 In accordance with the *Landscape and Visual Impact Assessment Guidelines, 3<sup>rd</sup> Edition* (Landscape Institute and IEMA, 2013), the level (relative significance) of an effect is ascertained by considering in tandem the nature (sensitivity) of the baseline landscape or visual receptor and the nature (magnitude) of change as a result of the development. Professional judgement is then employed to determine whether the effect is significant or not.
- 6.5.30 The detailed assessment criteria used to determine landscape and visual sensitivity, magnitude of change and significance of effect are set out in Appendix 6.1.

### **Residual Effects**

- 6.5.31 Best practice for EIA in general terms requires that the significance of potential effects be assessed, mitigation proposals identified and the residual effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed.
- 6.5.32 In the case of LVIA for wind farms this presents two interrelated problems:
- Potential effects cannot be meaningfully assessed in the absence of an assumed layout; and
  - Landscape and visual mitigation principally focuses on refinement of the site layout ('mitigation by design').
- 6.5.33 The approach taken in this study has therefore been to build landscape and visual mitigation into the final layout (refer to Chapter 2). Mitigation has been taken into account as part of the iterative design process but as this mitigation is integral to the final layout, there is no difference between the assessed effects reported in the main body of this chapter and the residual effects.

### **Limitations to the Assessment**

- 6.5.34 The assessment of effects within this LVIA has been derived through the use of publicly available information only. Within such a large study area it is unfeasible to visit every single location from which the Proposed Development might be visible as illustrated on the ZTVs. The authors of the LVIA have, however, spent a considerable length of time 'in the field' and visited all important viewpoints and locations within the study area.
- 6.5.35 Limitations to the use of ZTVs are set out in Table 6.1 above and the limitations in relation to photography, wireframes and photomontages are also set out in Appendix 6.2.

## 6.6 Baseline Conditions

### **Site Location**

- 6.6.1 The Proposed Development site is located in South Lanarkshire, Scotland. The site is centred at approximately OS Grid Reference 279062 630366. The closest settlement to the proposed turbines is the small hamlet of Glespin, located approximately 1.6 km to the south. The village of Douglas is located approximately 3.2 km to the east and the village of Coalburn is located approximately 3.4 km to the north-east.
- 6.6.2 The nearest main highways are the A70, which passes approximately 1 km to the south of the nearest turbine, and the M74 which passes approximately 6 km to the east of the nearest turbine.
- 6.6.3 The location of the Proposed Development site is illustrated at Figures 1.1 and 6.1.

### **Published Landscape Character Descriptions**

- 6.6.4 A review was undertaken of the following published sources of information regarding regional and local landscape character, landscape value and landscape capacity:
- South Lanarkshire Landscape Character Assessment, 2010, South Lanarkshire Council/Ironside Farrar;
  - South Lanarkshire Validating Local Landscape Designations, 2010, South Lanarkshire/Ironside Farrar;
  - South Lanarkshire – Landscape Capacity Study for Wind Energy, 2016, South Lanarkshire/Ironside Farrar;
  - Glasgow and Clyde Valley Landscape Assessment, SNH Review No 116, 1999, Land Use Consultants and Glasgow University;
  - Ayrshire Landscape Assessment, SNH Review No 111, 1998, Land Use Consultants;
  - East Ayrshire Landscape Wind Energy Capacity Study, 2018, Carol Anderson Landscape Associates;
  - Wind Energy Consultancy Landscape Capacity and Cumulative Impact, 2013, Scottish Borders Council/Ironside Farrar;
  - Dumfries and Galloway Landscape Assessment, SNH Review No 94, 1998, Land Use Consultants;
  - Dumfries and Galloway Wind Farm Landscape Capacity Study, 2011, Carol Anderson in association with Alison Grant;
  - The Lothians Landscape Character Assessment, 1998, ASH Consulting Group; and
  - Landscape Capacity Study for Wind Energy in West Lothian, 2011, David Tyldesley Associate.
- 6.6.5 At this point, for clarity, it is necessary to distinguish between two terms that are frequently used in published guidance and this chapter. They originate from the ‘*Guidelines for Landscape Character Assessment*’ (Countryside Agency and SNH, 2002):
- Landscape Character Types (LCTs) are defined as tracts of landscape, which have a generic unity of character due to the particular combinations of landform, land cover, pattern and elements. The same landscape character type can occur at several different locations throughout a study area, and
  - Landscape Character Areas (LCAs) are defined as discrete geographical areas of a particular landscape character type and can only occur at a single location.

- 6.6.6 At a local level the Proposed Development site falls within the area covered by the South Lanarkshire Landscape Character Assessment (Ironsides Farrar, 2010). The landscape character assessment established 14 LCTs for the South Lanarkshire area.
- 6.6.7 The study also refers to Landscape Character Sub-types (LCSTs). The term sub-type is used within the study to define a further sub division of the primary character type.
- 6.6.8 In the case of South Lanarkshire, the relevant published studies refer mainly to LCTs/LCSTs. However, it is noted that discrete areas of a type or sub-type are often referred to. These are in effect landscape character areas.
- 6.6.9 LCTs and LCSTs as identified in the key landscape character assessments above are illustrated in Figures 6.5 and Figure 6.6 (out to 35 km and 20 km respectively). Additionally, Figure 6.19 presents the LCTs and LCAs within 20 km overlaid on the Zone of Theoretical Visibility.

#### **Character Types/Areas Covering the Proposed Development Site**

- 6.6.10 Two LCTs/LCSTs cover the Proposed Development site. These are LCT 7 – Rolling Moorland and LCST 7B – Rolling Moorland Windfarm.
- 6.6.11 The three most southerly turbines lie within LCT 7 – Rolling Moorland; the remaining 11 turbines lie within LCST 7B - Rolling Moorland Windfarm.

#### Character Type – 7 Rolling Moorland

- 6.6.12 The character assessment records the key characteristics, features and qualities of this LCT as follows:
- Distinctive upland character created by the combination of elevation, exposure, smooth, rolling or undulating landform, moorland vegetation and the predominant lack of modern development;
  - These areas share a sense of apparent wildness and remoteness which contrasts with the farmed and settled lowlands and the windfarm-dominated Plateau Moorlands;
  - There are extensive views over the surrounding Ayrshire and Lanarkshire lowlands from the hilltops.
- 6.6.13 Having reviewed the key characteristics outlined for LCT 7 – Rolling Moorland, it is noted that the Proposed Development site itself lies on the fringes of this character type in a transitional zone with the adjacent LCST 7B – Rolling Moorland Windfarm. The key characteristic of the LCST is described as follows:
- Landscape influenced by the presence of windfarms such as at Hagshaw Hill.

#### **Other Character Types and Areas considered in this LVIA**

- 6.6.14 In order to consider the indirect effects of the Proposed Development on landscape character all other LCTs, LCSTs and LCAs within 35 km of the Proposed Development are illustrated in Figures 6.5 and 6.6.
- 6.6.15 As is evident from these figures, there are many discrete character types, sub-types and areas within 35 km of the site. An initial sieving exercise has therefore been necessary to determine which ones required detailed consideration in this LVIA. The intention has been to ensure that the level of attention given to each character type is proportionate to the likelihood of significant effects arising. The discussion below summarises the process followed in deciding which character types have the potential to experience significant effects and hence to scope out various character types from further consideration.
- 6.6.16 In different circumstances, it may be possible for significant effects on landscape character to occur at distances over 15 km away from a site. However, the defining elements of landscape character as experienced at any given location in the wider study area are most commonly derived from features of the landscape in relatively close proximity. In this case, other urban infrastructure

present throughout the section of the 35 km study area between 15 km and 35 km from the site (including settlements, industry, highways, overhead lines and operational wind farms at for example Whitelee, Black Law and Muirhall) are likely to have a much greater effect on landscape character than the Proposed Development at a distance of at least 15 km away. In this instance, it was therefore considered appropriate to focus attention on character types that extend no further than 15 km from the Proposed Development. This is not to suggest that the turbines will not be visible from certain locations beyond 15 km and in some cases will have a minor effect on landscape character but rather an acknowledgement that at any given location in a landscape the physical and perceptual characteristics of the landscape in the immediate vicinity have a far greater impact on the sense of landscape character than distant features no matter how tall they may be.

- 6.6.17 Figure 6.19 which shows the character types within 20 km overlaid on the ZTV indicates widespread visibility to the Proposed Development across the surrounding South Lanarkshire LCTs and LCSTs within 10 km of the nearest turbine: LCT 5 – Plateau Farmland; LCST 5B – Plateau Farmland Opencast Mining; LCT 6 – Plateau Moorland; LCST 6D – Plateau Moorland Opencast Mining; LCT 7 – Rolling Moorland; LCST 7A – Rolling Moorland Forestry; LCST 7B – Rolling Moorland Windfarm; LCT 8 – Upland River Valley, LCST 8A – Upland River Valley Incised; LCST 8B – Upland River Valley Opencast Mining; LCT 9 – Broad Valley Upland; and LCT 10 – Foothills.
- 6.6.18 In addition, between 10 km and 15 km there is visibility within the following additional South Lanarkshire LCTs and LCSTs: LCT4 Rolling Farmland; LCST 5C – Plateau Farmland Windfarm; LCST 10A – Foothills Forestry; LCT 11 – Prominent Isolated Hills; LCT 13 Southern Uplands; LCST 13A Southern Uplands Forestry; and 13C. Southern Uplands Leadhills.
- 6.6.19 Within East Ayrshire, LCT 18a - East Ayrshire Plateau Moorland and LCT 10 -Upland River Valley lie within 15 km to the west of the site, whilst within Dumfries and Galloway LCT19 – Southern Uplands lies within 15km to the south.
- 6.6.20 For reasons discussed below, not all of the LCTs and LCSTs that indicate widespread theoretical visibility are however considered in detail within the LVIA.
- 6.6.21 Character Type 7A – Rolling Moorland Forestry, as the title suggests, corresponds directly with large tracts of commercial forestry. Therefore, even where the ZTV implies theoretical visibility, there would in reality be no views of the turbines due to the enclosure afforded by forestry. It is the forestry itself that defines character in this LCT. Therefore, despite the fact that LCT 7A extends close to the boundary of the Proposed Development site, it has not been deemed necessary to consider this LCT in detail in the LVIA. Similarly, despite the fact that the ZTV implies theoretical visibility within LCST 6A – Plateau Moorland Forestry; LCST 10A – Foothills Forestry; and LCT13A. Southern Uplands Forestry, in reality there would be no effect on character here due to their forested nature and hence they are not discussed further.
- 6.6.22 LCST 5C – Plateau Farmland Windfarm and LCST 6B Plateau Moorland Forestry Windfarm are both, as the title suggests, already defined by the presence of the existing operational wind farms. As the character of these LCSTs is already a wind farm landscape, the Proposed Development is unlikely to result in any further significant effect on landscape character and hence they are not discussed further.
- 6.6.23 The opencast sub type of LCT 5 – Plateau Farmland, LCT 6 – Plateau Moorland and LCT 8 Upland River Valley (i.e. LCST 5B Plateau Farmland Opencast Mining, LCST 6D – Plateau Moorland Opencast Mining and LCST 8B – Upland River Valley Opencast Mining) are not considered sufficiently sensitive that indirect effects arising from a wind farm in a different character area could give rise to significant effects on landscape character. On this basis, these LCSTs are also scoped out of the assessment.
- 6.6.24 Finally, LCT14 Upland Glen, which lies around 14 km to the south-east of the site, lies outside of ZTV coverage and therefore with no visibility of the proposed turbines, would have no potential for impacts to landscape character.
- 6.6.25 It is recognised that there are two discrete areas of LCT 8 – Upland River Valley within 10 km of the Proposed Development site (associated with Douglas Water to the south-east and River Nethan to

the north-west). The ZTV indicates visibility within both of these valleys. On this basis, it has been considered appropriate to consider both these two areas of LCT 8 in the LVIA.

- 6.6.26 As the name suggests LCT 11 – Prominent Isolated Hills are susceptible to long distance views. The ZTV indicates some visibility of the proposed turbines within two areas of LCT 11 which at their closest points lie around 13 km and 14 km from the Proposed Development site. Given the prominent nature of these areas, this LCT is also considered within this LVIA.
- 6.6.27 Beyond the South Lanarkshire area, there are also character areas within East Ayrshire and Dumfries and Galloway within 15 km which have ZTV coverage and have been included for further analysis.
- 6.6.28 Table 6.2 below provides a summary of the LCTs and LCSTs considered further within this LVIA as identified through the sieving exercise discussed above.

**Table 6.2 - Landscape Character Types/Sub Types within 15 km and those to be considered in Further Detail in the LVIA**

Landscape Character Type/Sub-type	Approximate Distance from Nearest Turbine	Deemed necessary for further consideration of potential character effects yes/no
<b><u>South Lanarkshire Landscape Capacity Study for Wind Energy (2016)</u></b>		
<b>4. Rolling Farmland</b>	<b>10.5 km</b>	<b>Yes</b>
<b>5. Plateau Farmland</b>	<b>5.5 km</b>	<b>Yes</b>
5B. Plateau Farmland Opencast Mining	2.5 km	No
5C. Plateau Farmland Windfarm	14 km	No
<b>6. Plateau Moorland</b>	<b>4 km</b>	<b>Yes</b>
6D. Plateau Moorland Opencast Mining	8 km	No
<b>7. Rolling Moorland</b>	<b>0 km</b>	<b>Yes</b>
7A. Rolling Moorland Forestry	0.1 km	No
<b>7B. Rolling Moorland Windfarm</b>	<b>0 km</b>	<b>Yes</b>
<b>8. Upland River Valley</b>	<b>1 km</b>	<b>Yes</b>
<b>8A. Upland River Valley Incised</b>	<b>1 km</b>	<b>Yes</b>
8B. Upland River Valley Opencast Mining	4 km	No
<b>9. Broad Valley Upland</b>	<b>7 km</b>	<b>Yes</b>
<b>10. Foothills</b>	<b>7 km</b>	<b>Yes</b>
10A. Foothills Forestry	9.5 km	No
<b>11. Prominent Isolated Hills</b>	<b>12.5 km</b>	<b>Yes</b>
<b>13. Southern Uplands</b>	<b>10 km</b>	<b>Yes</b>
13A. Southern Uplands Forestry	10.5 km	No
<b>13C. Southern Uplands Leadhills</b>	<b>12.5km</b>	<b>Yes</b>
14. Upland Glen	13km	No
<b><u>East Ayrshire Landscape Wind Capacity Study (2018)</u></b>		
<b>10. Upland River Valley</b>	<b>3 km</b>	<b>Yes</b>

Landscape Character Type/Sub-type	Approximate Distance from Nearest Turbine	Deemed necessary for further consideration of potential character effects yes/no
18a East Ayrshire Plateau Moorlands	2.5 km	Yes
<b><u>Dumfries and Galloway Wind Farm Landscape Capacity Study (2013)</u></b>		
19. Southern Uplands	10 km	Yes

### ***Local Landscape Description and Character Appraisal***

6.6.29 A plan showing the landscape features/elements within the site and its immediate context (2 km radius of the turbines) is provided in Figure 6.20. The following discussion provides an overview of the physical and perceptual characteristics of the site and immediately surrounding landscape without particular reference to established landscape character type/area boundaries.

#### **Landform and Topography**

- 6.6.30 Topography and relief within 35 km of the Proposed Development site is illustrated in Figure 6.21.
- 6.6.31 The Proposed Development site lies on a ridge of hills including Henry's Hill (445 m AOD), Common Hill (488 m AOD) and Hagshaw Hill (470 m AOD) and their associated lower southern slopes. It occupies an area of rolling moorland landscape to the south of Cumberhead Forest.
- 6.6.32 To the south-east the land gently undulates before falling away to the relatively wide river valley of the Douglas Water. On the far side of the valley the land then rises through the village of Douglas to a series of hills including the hill top at Pagie Hill at approximately 388 m AOD. The Douglas Valley runs in a south-west to north-east direction. The upper reaches of the valley some several kilometres south-west are more incised and a number of other incised valleys cut a path down to Douglas Water from the moors above.

#### **Watercourses and Drainage**

- 6.6.33 Within the Proposed Development site there are two main watercourses which drain off the moorland running ultimately into the Douglas Water to the south. These are Smithy Burn and Windrow Burn.
- 6.6.34 The Douglas Water is the primary watercourse within the vicinity of the Proposed Development site and located approximately 1.5 km to the south of the nearest proposed turbine at its closest point. The Douglas Water meanders through a valley from the south-west in a north easterly direction before converging with the River Clyde south of Lanark. A number of small lakes occupy positions in the floodplain of the river.

#### **Vegetation**

- 6.6.35 The site consists primarily of rough moorland grassland cover. The site is however situated immediately to the south of a large area of plantation woodland known as Cumberhead Forest. Around 2 km further to the east lies Long Plantation which is of more historic origins and associated with the village of Douglas. This is a designated Ancient Woodland which is understood to have been planted in the late 19<sup>th</sup> century to screen the mineral railway line to Douglas West in views from Douglas Castle and the village of Douglas.
- 6.6.36 It was noted that a significant amount of reforestation/restoration is currently taking place within the vicinity of the site on the former open cast mining sites. There is extensive young plantation planting located to the east and south east of Coalburn, south of Bellfield Road. There is also evidence of forest planting further east of Coalburn, in the vicinity of Coalburn Moss, to both sides of Bellfield Road.
- 6.6.37 Within the Douglas Water Valley, south of Long Plantation, the vegetation takes on a parkland character with various copses, small plantations and individual parkland trees.

### **Built Infrastructure**

- 6.6.38 The Proposed Development site has hosted the Existing Development for more than 23 years since its construction in 1995. In 2006, a further 20 turbines were consented immediately adjacent to the site to both the east on Burnt Rig (441 m) and Windrow Hill (397 m) as an extension to the Existing Development with a tip height of 80 m (“the Hagshaw Hill Extension”). The landscape local to the site has seen further wind farms constructed and consented, with recent consent granted for turbines up to 149.9 m to blade tip in the landscape immediately to the east and north-east of Hagshaw Hill, at Douglas West Wind Farm. Hazelside Farm wind turbine was erected in 2016 and is 74 m to blade tip. Planning permission exists for a further turbine at Hazelside of the same dimensions but this is yet to be built. Galawhistle Wind Farm is now operational and adjoins the Hagshaw Hill Extension to the west, comprising 22 turbines at 121 m in height. Nutberry Wind Farm lies to the north and is also operational, consisting of 6 turbines which have a maximum blade tip height of 125 m. Other consented (but as yet unbuilt) commercial wind farm proposals exist in Cumberhead Forest and Dalquhandy to the north. Refer to Figure 6.3.
- 6.6.39 Elsewhere in the nearby local landscape, much of the area to the north and north-east of Cumberhead Forest was worked for minerals during the 1980s and 1990s and whilst the landscape has been substantially restored, there remains much evidence of the previous activities in the landscape.
- 6.6.40 The most prominent feature of this former minerals working is a large area of hardstanding to the west of Long Plantation which was the site of the main processing activities during the works and now houses a large biomass CHP plant. The footprints of some former buildings are evident as is the former weighbridge.
- 6.6.41 A former coal haul road (which now forms part of the access to the Proposed Development) starts at the B7078, by Junction 11 of the M74, heads in a south westerly direction past a large industrial complex at Poniel. The access road initially follows the line of the dismantled Muirkirk Branch railway. At the large area of hardstanding (DP), the access road continues in a westerly direction across the now consented Douglas West Wind Farm site. The access track then continues in a north westerly direction, through the adjoining part of the Dalquhandy Opencast Coal Site, towards the southern edge of Coalburn. A number of passing places remain alongside the road. There are also several other lesser tracks which cross the site.
- 6.6.42 A dismantled railway line runs in the landscape between Douglas and the Proposed Development site (which again forms part of the new access route to the Proposed Development). Little evidence of the railway line remains, other than the linear remains of the line travelling through the landscape and a few bridges.
- 6.6.43 There is an existing electricity substation at Douglas West. From here a number of overhead electricity lines cross the landscape to the north-east of the site. One line of pylons and overhead wires cross cut through the forest plantation heading for Coalburn. This line is now disused. A further double row of overhead wires runs in a northerly direction past the M74.
- 6.6.44 From the substation, there is also an access track leading to the Existing Development via Arkney Hill and this also acts as an access point to the Nutberry Wind Farm and commercial forestry activities which lie to the west of the site. This access track is also included in the application site boundary for the Proposed Development. As discussed in Chapter 3 (Proposed Development), access would not be taken from Station Road (as was the case for the Existing Development) but via a dedicated new access route running direct from Junction 11 of the M74 along the alignment of the former dismantled railway, turning to access the site from a south-easterly direction, near to High Broomerside, between the Smithy Burn and Windrow Burn. The existing access track at Arkney Hill may be used to access parts of the site.
- 6.6.45 In the slightly wider context, the village of Coalburn lies to the north and Douglas lies to the south-east, with the settlement of Glespin to the south. There are also a number of individual properties along the A70 to the south of the site, including a cluster at Hazelside which are under control of the Applicant.

### **Sensory and Perceptual Characteristics**

- 6.6.46 The Proposed Development site is an open and exposed rolling moorland. Therefore, there is little sense of enclosure. As a consequence, the site and immediate surroundings have a relatively large scale. The restoration of the wider local landscape following mineral working has been relatively successful but nevertheless the condition of the landscape is evidently diminished by its previous land use. Relicts of the minerals operations ensure that there remains a strong sense of past industrial activity in the immediate landscape context.
- 6.6.47 The former opencast coal extraction operations in the nearby landscape, and associated colliery spoil heaps and mineral railway lines, the existing biomass CHP plant, the large (and expanding) bonded warehousing complex at junction 11, the M74 motorway itself, the existing operational wind farms, and the urban development in the surrounding landscape and commercial forestry adjacent to the site, lends the landscape a sense of intensive human influence over many decades. It has regularly been described as a “productive landscape”.
- 6.6.48 In the last 20 years, wind energy has become a defining element of the character of the local moorland landscape and whilst the Existing Development is not formally considered to form part of the baseline for this LVIA, the adjacent Hagshaw Hill Extension development has been operational for over 10 years and with other operational and consented developments in the local area give rise to the perception of a landscape within which wind farms are a familiar and established feature.
- 6.6.49 In contrast, the Douglas Water valley to the south of the site has historic character and recreational interests as recognised by its designation as an SLA. Here the character is less exposed although the width of the valley means that it is not enclosed. The scale of this landscape is smaller and the condition of the landscape features is more intact.

### **Forces for Future Change in the Landscape**

- 6.6.50 It is helpful to consider the future forces for change in the baseline landscape in order for the landscape effects of the Proposed Development to be set in context.
- 6.6.51 The landscape restoration proposals for part of the former Dalquhandy Opencast Coal mine to the north of the Proposed Development site includes the aspiration of restoring the land to open moorland and plantation forestry, although it is acknowledged that there may not be any further work done on this site until the consented wind farm project commences (see below).
- 6.6.52 Four commercial wind farm developments have been consented within just over 5 km of the Proposed Development site, namely: the Douglas West Wind Farm of 13 turbines (149.9 m to blade tip) the Dalquhandy Wind Farm of 15 turbines (131 m to blade tip) on part of the former Dalquhandy Opencast mine noted above, the 11 turbine Cumberhead Wind Farm (126.5 m to blade tip) and the Poniel development of three turbines (100 m to blade tip). There are several other individual large and medium scale turbines consented between 5 km and 10 km, mostly north-east of the Proposed Development site between Lesmahagow and Coalburn but also two 74 m turbines at Hazelside Farm adjacent to the Proposed Development site – one of which is built and operational. There are also various other larger wind farms which are consented in the wider landscape including those at Penbreck, Kennoxhead and Kype Muir Extension.
- 6.6.53 In agreement with the relevant statutory consultees, the nearby consented schemes are taken into account in the baseline against which the Proposed Development is assessed as there is a high degree of certainty that these schemes will be constructed in the coming years and influence the landscape character of the study area.
- 6.6.54 It is also widely recognised that climate change will have an impact on the future character of the British landscape.

### **Visual Receptors**

- 6.6.55 Due to the height of the proposed turbines and the undulating landform in the surrounding study area, there is the potential for the development to be visible at considerable distances in several directions, most notably to the north and north-east of the proposed site. However, at an early stage

in the assessment, it was determined that there was little potential for the development to result in any notable visual effects at distances over 35 km from the site and furthermore that with distance from the site, the likelihood of significant visual effects occurring incrementally decreases. Therefore, whilst the study area for this LVIA extends out to 35 km and the various figures which accompany this report illustrate a 35 km study area, sensitive visual receptors are identified with a decreasing level of detail with distance from the site.

- 6.6.56 Interpretation of the ZTVs (Figures 6.7 – 6.18) assisted to identify potentially sensitive visual receptors of the Proposed Development. Principal visual receptors within the surrounding landscape are illustrated at Figure 6.22 and are identified below.

#### **Residential Receptors and Settlements**

- 6.6.57 Residential visual receptors have been identified in bands of distance from the nearest turbine with a greater level of detail provided in relation to properties nearest to the Proposed Development. It is however recognised that there would be views from individual properties and clusters of properties throughout the study area.

- 6.6.58 There are 23 individual residential properties or groups within approximately 2 km of the proposed turbine locations, including three rows of properties within the settlement of Glespin along Ayr Road, Driverholm Terrace and Hillview Crescent. These are identified and discussed in detail within the Residential Visual Amenity Study (RVAS) presented at Appendix 6.4. In summary, the properties considered within the RVAS are as follows (approximate measurements are taken from nearest turbine tower to the nearest façade of the habitable part of the residential building in each case):

- *Monkshead Farm (1.80 km)\*;*
- Debog Farm (1.99 km);
- Shielpark (1.95 km);
- Monksfoot (1.05 km);
- The Shieling (1.13 km);
- Inches Cottage (1.13 km);
- *Low Broomerside (0.52 km)\*;*
- Carmacoup Farm Cottage (1.81 km);
- Carmacoup Farm (1.88 km);
- Viaduct Cottage (1.78 km);
- Bungalow Cottage (2.03 km);
- Longhouse Cottage (1.74 km);
- 1 Braeface Cottage (1.68 km);
- 2 Braeface Cottage (1.69 km);
- Tablestane (1.73 km);
- *Properties at Hazelside Farm (1.70 km)\*\*;*
- *Hazelside (1.72 km)\*\*;*
- *Hazelside Lodge (1.87 km)\*\*;*
- Station House (2.1 km); and
- *Blackwood Cottage (2.2 km)\*\*;*

*\*It is understood that Property 1 Monkshead Farm is abandoned and no longer forms a residential property and that Property 7 Low Broomerside is owned by the Applicant and will be taken out of residential use.*

*\*\*It is acknowledged that Properties 19-21 and 23 are also owned by the Applicant and have an involvement in the scheme. However, for the purposes of this RVAS all properties have been assessed in the same manner irrespective of any involvement or otherwise*

6.6.59 The closest of the properties within the identified groups within settlement of Glespin are as follows:

- Driverholm Terrace (1.68 km);
- Ayr Road (1.68 km); and
- Hillview Crescent (1.60 km).

6.6.60 Aside from the villages of Coalburn and Douglas, there are no other sizeable settlements within 5 km of the site.

6.6.61 Between 5 km and 10km of the Proposed Development site, there are three further settlements, namely Lesmahagow to the north, Muirkirk to the west and Rigsid to the east.

6.6.62 Further afield and within the 35 km study area are the larger towns of Lanark, Carluke, Larkhall, Biggar, Sanquhar, Cumnock, Kilmarnock and Strathaven. The south-eastern edge of the city of Glasgow, including Wishaw, Motherwell, Hamilton, East Kilbride and Coatbridge, also fall within the 35 km study area.

#### **Recreational and Long Distance Walking and Cycling Routes**

6.6.63 There are several recreational and long distance walking and cycling routes within the 35 km study area of the Proposed Development and it is acknowledged that there is the possibility that there will be a link put in place between the River Ayr Way and the Clyde Walkway in the vicinity of the site in the future. There are no national walking or cycling routes within 2 km of the site, however there is one long distance walking route within 5 km of the Proposed Development, described below:

- River Ayr Way – The River Ayr Way follows the length of the River Ayr from its source at Glenbuck Loch to the Firth of Clyde at Ayr. As it lies within a river valley corridor, it generally falls outside of the ZTV, however there is a section of the route, approximately 9 km in length to the south of the settlement of Muirkirk, which passes within the ZTV.

6.6.64 Within 10 km of the site there is a National Cycle Network route, described below:

- NCN 74 – This cycle route connects Gretna with Glasgow, travelling via Lockerbie and Abington. This route originates in Gretna, and from Abington, the route continues in a north-westward direction travelling along the B7078 to Lesmahagow and beyond to Larkhall and Hamilton via the minor road network. The closest section of the route to the Proposed Development is located approximately 6 km to the east at the B7078, southeast of Douglas.

6.6.65 Other long distance routes between 10 km and 35 km of the site include the following (all of which are sufficiently distant or fall outside of the ZTV so that no significant effects are predicted):

- The Clyde Walkway (approximately 13 km to the north-east of the nearest turbine and outside of the ZTV);
- Southern Upland Way (approximately 14 km to the south of the nearest turbine);
- NCN 756 (approximately 28 km to the northwest of the nearest turbine);
- NCN 75 (approximately 31 km to the north of the nearest turbine);
- John Buchan Way (approximately 32 km to the east of the nearest turbine).

### **Core Paths and other Routes**

- 6.6.66 Within the 35 km study area, there are inevitably numerous core paths and other routes and it would be impossible to describe them all in this chapter.
- 6.6.67 The core paths and other routes in the immediate vicinity of the site are described below. They are also illustrated within the Landscape Context Plan (Figure 6.20).
- 6.6.68 A core path has been defined which follows the access tracks of the Existing Development. The route, CL/3457/1, travels west from the outdoor centre at Douglas before dividing in two on Arkney Hill, where a separate path, CL/5724/1, runs into Cumberhead Forest. The path which runs on to the site then becomes known as CL/3458/1 and then CL/3461/1, CL/3459/1, CL/3460/1 and CL/3460/2 within the site.
- 6.6.69 Core path CL/3452/1 also travels in a south-westerly direction from the outdoor centre, along the dismantled railway line (which forms part of the access route to the Proposed Development), while core paths CL/3344/2 and CL/3344/1 travel in a north-easterly direction along the dismantled railway.
- 6.6.70 An aspirational core path connects to core path CL/3344/1 and continues in a north-easterly direction along the dismantled railway line and proposed access track to the M74 at Junction 11.
- 6.6.71 To the north of the site on part of the old opencast workings, there is also an extensive network of core paths, aspirational core paths and wider network paths which extend into Coalburn. One core path runs along the western edge of Coalburn in a north south direction. This path is transected by another core path which runs from the plantation to the west of Coalburn, easterly, over Coalburn Road, along Manse View towards the dismantled railway. An additional core path then travels in a northerly direction along the dismantled railway.
- 6.6.72 To the east of the site, a series of core paths and wider network paths cross throughout Long Plantation. One core path, CL/3337/1, exits Long Plantation next to Gardens House, running in a southerly direction past Castle Dangerous, then splits to travel around each side of Stable Lake, CL/3332/1 and CL/3331/1, continuing to the south west towards Douglas. A network of core paths run throughout Douglas, including one in-particular which heads in a north-westerly direction along the northern boundary of the recreational ground and on towards Long Plantation, namely CL/3342/1. Core Path CL/3343/1 runs in a south-westerly direction through Long Plantation, along the dismantled railway, becoming CL/3344/1 leading towards Station Road. At the Outdoor Centre on Station Road the core path splits, with one route, CL/3452/1, continuing southwards along the dismantled railway. The other route, CL/3457/1, continues in a north-westerly direction along the southern boundary of the proposed site continuing westwards through the Existing Development site. An aspirational core path runs around Henry's Hill through the plantation to the north parallel to the core path CL/3458/1.
- 6.6.73 A Public Access Strategy will be prepared for the Proposed Development which will aim to improve linkage between existing path networks in the area and to create a Visitor Welcome Area on the landholding is further discussed in Chapter 3 Proposed Development.

### **Road and Rail Network**

- 6.6.74 An extensive network of major and minor roads traverses the landscape within the 35 km study area.
- 6.6.75 The A70 runs to the south of the site through the Douglas Valley, between Lanark and Ayr. As this road passes to the south of the site, on the western side of Glespin, it passes approximately 1.13 km from the nearest proposed turbine (T1).
- 6.6.76 The M74, a major motorway linking Glasgow with the north of England, runs in a north north-west to south south-east direction to the east of the site. At its closest point between junctions 11 and 12 near Happendon Services, the M74 passes approximately 6 km to the east of the nearest turbine (T14).
- 6.6.77 Two notable B roads which run within 10 km of the site, include:

- the B7078 which runs in parallel to the M74 to the east of the site; and
- the B743 located to the west of the site.

6.6.78 The nearest railway line to the site is the Carlisle to Glasgow line which passes approximately 13 km to the east of the site at its nearest point. The Carlisle to Glasgow line splits at Carstairs Junction, with one branch continuing towards Edinburgh. The railway lines fall largely outside of the ZTV other than small sections around 20 km from the site and therefore are not discussed further.

#### **Centres of Recreational and Tourism Activity**

6.6.79 The main centre of local recreational activity in the vicinity of the Proposed Development is the area to the north and north-east of Douglas centred on the Douglas Castle, known as the ‘Douglas Castle Policies’. This publicly accessible area of recreation is used principally by walkers and attracts some visitors from outside the area. The Douglas Castle Policies contains the ruins of Castle Dangerous, the remnants of a castle built in 1457, which inspired Sir Walter Scott’s novel of the same name. It also hosts the Cameronian Memorial unveiled in 1968, to honour the Regiment after 300 years of service, on its disbandment and is situated a mile away from where the Regiment was raised by the Earl of Angus in 1689. The memorial has recently been restored with new seating around it. The Polish Memorial Garden commemorates the Polish allies of the United Kingdom who were based in the Policies during the Second World War. Between the village and Castle Dangerous is Stable Lake, used for fishing by the local community during the coarse fishing season, and for curling by the Douglas Curling Club in the winter (when the lake freezes). A 1.4 km circular all abilities walkway has been created around it and throughout the valley there are picnic benches and other benches. The undulating terrain and the permanent hunt jumps, provide for the Pony Club who hold regular Hunter Trials in the shadow of Castle Dangerous.

6.6.80 Within Douglas village there is a heritage trail which includes the Douglas Heritage Museum, St Bride’s Church, the war memorial and the Earl of Angus Monument amongst others.

6.6.81 The site of the former Dalquhandy Opencast Coal Mine has also been opened up to public access but until restoration proposals start to mature, at present it is not particularly appealing as a recreational centre, but there are opportunities for the future.

6.6.82 To the north-east of the site is the New Lanark World Heritage Site (WHS), which includes attractions such as the restored cotton mill village, a roof garden viewing platform, a visitor centre, the Falls of Clyde, restaurants and accommodation. The majority of the WHS lies in a steeply sided, wooded valley from which there would be no view of the proposed turbines. Figure 6.11 illustrates that there would be no theoretical visibility of the proposed turbines from the vast majority of the WHS. In reality, when taking into consideration the topographical variation between the WHS and the site, and the high degree of vegetation within the intervening landscape, the Proposed Development is not likely to be visible. Therefore, effects on the WHS are not discussed further.

6.6.83 The assessment of effects on tourism and local recreation is also further assessed in Chapter 13 of this EIA Report (Socio-Economics, Tourism and Recreation).

#### **Viewpoints in the South Lanarkshire Spatial Framework and Landscape Capacity for Wind Farms**

6.6.84 The above document identifies a number of key panoramic vantage points (or viewpoints) which it considers to be of importance. A number of these located within the study area are noted below:

- Douglas Castle
- Tinto
- Hyndford Bridge
- Black Hill
- Biggar Common
- Culter Fell

- Little Sparta
- Forth
- Motherwell Heritage Centre

6.6.85 A number of the above viewpoints have been adopted as individual assessment viewpoints in the LVIA. It is also noted that Red Moss and Abington Services which are also identified in the above document and lie in relatively close proximity to the site do not fall within the ZTV and are therefore not discussed further.

### **Assessment Viewpoints**

6.6.86 The desk studies, site visits and interpretation of the ZTVs, alongside consultation with statutory consultees, helped to identify 17 assessment viewpoints. These were considered to be representative of the range of views towards the Proposed Development site. They are not intended to cover every single possible view but are representative of a range of distances from the site and receptor types (e.g. residents, walkers, road users).

6.6.87 Table 6.3 identifies the 17 assessment viewpoints. The locations of these assessment viewpoints are illustrated on Figure 6.23.

6.6.88 Appendix 6.3 provides a baseline description of the view from each assessment viewpoint followed by a detailed analysis and assessment of effects on the viewpoint (VP).

**Table 6.3 - Assessment Viewpoints**

VP No.	Location	OS Grid Reference	Approximate Distance to site boundary (km)	Character Area
1	Braehead*	281512, 634519	3.5 km	5 – Plateau Farmland
2	M74 Overbridge	284562, 635389	6.2 km	5 – Plateau Farmland
3	Douglas Castle	284119, 631737	4.0 km	8 – Upland River Valley
4	B7078 south of Lesmahagow	283190, 637213	6.3 km	5 – Plateau Farmland
5	A70 Rigside	287701, 635190	9.0 km	10 – Foothills
6	Black Hill	283198, 643547	12.7 km	4 – Rolling Farmland
7	Hyndford Bridge	291447, 641479	15.5 km	9 – Broad Valley Upland
8	Tinto Hill	295320, 634369	15.6 km	11 – Prominent Isolated Hills
9	Carmacoup (A70)	278634, 628453	1.5 km	8A - Upland River Valley Incised
10	Victory Park, Muirkirk*	268891, 627079	9.8 km	10 - Upland River Valley (East Ayrshire)
11	Cairn Kinney	278473, 621427	8.4 km	7 - Rolling Moorland
12	Glespin (on A70)	282048, 628728	1.8 km	8 – Upland River Valley
13	Auchensaugh Hill	285337, 627198	7.0 km	7 - Rolling Moorland
14	Nether Wellwood (A70)	264483, 625095	14.3 km	18a - Plateau Moorlands (East Ayrshire)
15	Cairn Table	272573, 624278	8.6 km	7 - Rolling Moorland
16	Douglas, Crabtree Street*	283541, 631002	3.6 km	8 – Upland River Valley
17	Junction of A70 and Station Road, Douglas	283297, 630323	3.3 km	8 – Upland River Valley

\*Viewpoints 1, 10 and 16 were also identified as appropriate viewpoints to assess night-time lighting impacts of the Proposed Development which is covered in Appendix 6.5.

## 6.7 Potential Effects

6.7.1 Following a brief summary of the Proposed Development, this section of the report considers the effects of the Proposed Development on landscape features, landscape character and visual amenity. It considers the effects at three different stages in the lifetime of the Proposed Development:

- during construction of the Proposed Development;
- during the operational lifetime of the Proposed Development; and
- during decommissioning of the Proposed Development after 30 years of operation.

6.7.2 Effects during the first and third of these phases are considered to be temporary and would have a short duration. Effects associated with the operational phase of the Proposed Development are considered to be long term, reversible effects.

### ***Project Description***

6.7.3 A detailed description of the Proposed Development is set out in Chapter 3. The Proposed Development description below summarises those details of the Proposed Development that have particular relevance to the LVIA.

6.7.4 The Proposed Development will principally comprise the following visible features which may have an impact on landscape character or visual amenity:

- 14 wind turbines, up to 200 m to blade tip (the proposed turbines are three bladed horizontal axis machines, the finish and colour of the turbines will be semi matt and pale grey in colour);
- crane hardstanding areas (50 m by 30 m);
- site access tracks (5 m wide);
- a substation, control room and battery storage facility compound (approximately 100 m by 60 m with heights of around 5 m);
- a construction compound/concrete batching area (100 m by 60 m);
- a temporary turbine laydown area (150 m x 70 m);
- two borrow pit search areas and the potential recovery of material from Douglas West bing;
- two new anemometer masts (100 m steel lattice structure).

### ***Effects on Existing Landscape Features***

#### **Effects during Construction of the Proposed Development on Existing Landscape Features**

6.7.5 Access to the Proposed Development site would be firstly via an existing wide road which was previously the coal haul road for the Dalquhandy Opencast site. It is sufficiently wide so there would be no need to undertake any road widening and hence the access route would not result in any effect on any existing landscape features at this point. At approximately 282770, 632447 the access track would divide from the Coal Road and would take a new route along the alignment of the now dismantled railway which runs immediately to the north of Long Plantation, up until it meets the end of Station Road, at Douglas West. From here, the route would divide with one section following the existing access track to the Hagshaw Hill Extension, and the remaining section continuing to follow the dismantled railway until a point near the Windrow Burn where it turns to run up the flanks of Broomerside Hill on to the site.

- 6.7.6 The proposed turbines, the main construction compound, the new anemometer mast, their associated foundations and crane pads, and all new access tracks would all be located within areas of primarily moorland vegetation which is commonplace across this part of the South Lanarkshire landscape and generally of a low sensitivity.
- 6.7.7 There are two proposed borrow pit search areas within the site. These areas of search have been located to minimise effects upon the landscape, sited in a lower lying part of the site and generally screened from view by the adjacent Windrow Wood. Potential also exists to recover construction materials from the colliery spoil heap at Douglas West (refer to Chapter 3 and Figure 3,10). The borrow pits and/or colliery spoil working would result in the temporary disturbance of the ground, but as with the remainder of the development, once the Proposed Development has been constructed, the land would be reinstated as appropriate. Overall, it is considered that there would be a low magnitude of effect upon landscape features giving rise no greater than a **moderate/minor** effect which is **not significant**.
- 6.7.8 In summary, no notable landscape features would be affected. Therefore, it is considered that there would be no significant effects on existing landscape features during the construction phase.

### ***Effects on Landscape Character***

#### **Sensitivity of Landscape Character to Wind Energy Development**

- 6.7.9 The first stage in assessing the effects of the Proposed Development on landscape character is to evaluate the sensitivity of the receiving landscape to the type of change proposed. As indicated within GLVIA3 sensitivity of landscape character should be determined through a consideration of both susceptibility to change and any values associated with the landscape.
- 6.7.10 A number of documents assist in this process. In considering landscape susceptibility and landscape values for those landscape character types within South Lanarkshire it is helpful to draw upon the analysis contained within the *South Lanarkshire Landscape Character Assessment (2010)* and the *South Lanarkshire Landscape Capacity Study for Wind Energy (2016)*.
- 6.7.11 Therefore, for each character type considered, a discussion is provided regarding any analysis of landscape sensitivity within the *South Lanarkshire Landscape Character Assessment*.
- 6.7.12 Reference is then made to the *South Lanarkshire Landscape Capacity Study for Wind Energy (SLLCSWE) (2016)*. However, these two studies should be read with caution as they do not necessarily just consider landscape sensitivity (susceptibility and value).
- 6.7.13 Firstly, the document combines judgements about landscape character sensitivity (which is broadly the same as the concept of landscape susceptibility as defined in GLVIA3) and landscape value with judgements about visual sensitivity to formulate opinions about landscape capacity (i.e. the quantity of development that a landscape can accommodate). It is important therefore to disaggregate the relevant judgements contained within these studies such that perceived visual constraints do not factor in the judgements regarding landscape sensitivity as required for the purposes of this LVIA.
- 6.7.14 Furthermore, it should be noted that these documents, although only a few years old, are already dated to some extent by wind farm developments which have been either consented or constructed in the intervening period. It is therefore necessary to evaluate whether changes to the baseline (in terms of recently consented or constructed wind farms) have altered sensitivity as reported in these studies.
- 6.7.15 *Appendix 6* of the SLLCSWE considers the physical and perceptual characteristics of each character type to wind energy development and forms a judgement concerning the sensitivity of each characteristic before coming to an overall judgement about landscape character sensitivity (broadly the same concept as landscape susceptibility as defined in GLVIA3). The same appendix considers landscape values. Therefore, for each character type considered, the findings of the SLLCSWE in relation to landscape character sensitivity and landscape values are reported and commented upon as necessary. An overall judgement regarding landscape sensitivity taking account of landscape susceptibility and values is then formed for each character type.

6.7.16 It should be noted that the sensitivity judgements provided in this section of the report take into account the presence of other operational wind farms and those under construction (where relevant), in addition to the other consented (but as yet unbuilt) wind farms in the vicinity of the site.

6.7.17 Key sensitivities and capacity judgements from the SLLCSWE are also identified where relevant but updated where necessary with reference to recently constructed wind farms.

Summary

6.7.18 For each LCT considered in detail in this LVIA, Table 6.4 below summarises the professional judgements made for the purposes of this report concerning the susceptibility to change and the value associated with each LCT before drawing a conclusion finally on the landscape sensitivity of each LCT to the type of development proposed.

**Table 6.4 Summary of Landscape Sensitivity to the Development Proposed**

LCT/LCST	Susceptibility to the Type of Change Proposed	Landscape Values	Sensitivity to the Type of Development Proposed
<b><i>South Lanarkshire</i></b>			
2A. Incised River Valley Broad Valley Floor	High	Medium/High	Medium/High
4. Rolling Farmland	Medium/High	Medium/High	Medium/High
5. Plateau Farmland	Medium	Medium	Medium
5B. Plateau Farmland Opencast Mining	Low	Medium/Low	Low
6. Plateau Moorland	Medium/Low	Medium/Low	Medium/Low
7. Rolling Moorland	Medium	Medium	Medium
7B. Rolling Moorland Windfarm	Low	Medium/Low	Medium/Low
8. Upland River Valley	Medium/High	Medium/High	Medium/High
8A. Upland River Valley Incised	Medium/High	Medium/High	Medium/High
10. Foothills	Medium	Medium/High	Medium
11. Prominent Isolated Hills	Medium/High	High	Medium/High
13. Southern Uplands	Medium	Medium/High	Medium/High
13C. Southern Uplands Leadhills	Medium	Medium/High	Medium/High
<b><i>East Ayrshire</i></b>			
10. Upland River Valley	High	Medium/High	Medium/High
18a East Ayrshire Plateau Moorlands	Medium/High	Medium/High	Medium/High
<b><i>Dumfries and Galloway</i></b>			
19. Southern Uplands	Medium/High	Medium/High	Medium/High

### Effects on Landscape Character during Construction

- 6.7.19 The Proposed Development is located within LCT 7B - Rolling Moorland Windfarm (11 turbines); LCT 7 – Rolling Moorland (3 turbines and most of the other ancillary development). The first part of the access track also runs through LCT 5 - Plateau Farmland, albeit that this section runs along a route which is an existing road to the former opencast mining operation and that has already been upgraded as part of the redevelopment of the former opencast site. The route serves to access the existing wood-fired CHP Plant and will also form the access to the consented Douglas West Wind Farm and the consented Dalquhandy Wind Farm.
- 6.7.20 It is recognised that there would be some additional temporary effects during construction over and above those assessed under the heading of ‘Operational Effects’ below. The additional effects resulting from construction activities would be localised and relatively incidental when viewed in the context of the turbines being erected.
- 6.7.21 The effects on landscape character would therefore increase incrementally as construction progresses and as more turbines and associated foundations and hardstanding are constructed.
- 6.7.22 As previously discussed, there would be no effect on any existing landscape features of note such as mature vegetation (with the exception of some scrub clearance along the former railway line as part of the road construction works).
- 6.7.23 There would be earth movements associated with the construction of foundations, hardstandings borrow pit search areas, and other features of the Proposed Development. Such activities would all result in some soil disturbance. The additional impact on landscape character would arise therefore from the temporary stockpiling of soil, exposure of relatively small areas of bare earth and the movement of construction vehicles. In the context of the former use of much of the local landscape as an opencast mine, these earthmoving activities would be of much smaller scale and not be uncharacteristic in the local context.
- 6.7.24 The main construction and storage compound and concrete batching area will also result in temporary direct effects within LCT 7.
- 6.7.25 Cranes would be involved in the erection of the turbines but these would be on-site for a relatively short period during the overall construction phase. The cranes would form noticeable vertical features in the landscape for a short period of time but be relatively incidental to the turbines being erected.
- 6.7.26 Overall, it is considered that there would be a low to medium magnitude of additional change (over that during the operation phase) for the reasons outlined above. This would result in no greater than a **minor to moderate** temporary additional effect on the LCT 7B - Rolling Moorland Windfarm and LCT 7 – Rolling Moorland within which the Proposed Development is located over and above the permanent effects dealt with under the heading of ‘Operational Effects’ below. The construction effects would be temporary in nature and are unlikely to all occur at the same time during the construction phase.
- 6.7.27 It is noted that there will be no additional direct effects on LCT 5 – Plateau Farmland, as the section of the access route which passes through the LCT is an existing road.
- 6.7.28 The construction effects of the development on landscape character are deemed to be **not significant**.

### Effects on Landscape Character during Operational Phase

- 6.7.29 The effects on landscape character are discussed below in relation to each LCT/LCST as identified in Table 6.4. The magnitude of change on landscape character as a result of the Proposed Development has been determined using professional judgement based on the following factors:
- The percentage of the character type from where the site would theoretically and actually be visible;
  - The distance between the character type and the site;

- The likely prominence of the turbines from the character type taking account of existing locally dominant characteristics in the character type, including existing views of other wind turbines; and
  - The degree to which the physical and perceptual characteristics of the landscape would change as a result of the Proposed Development.
- 6.7.30 To reiterate a point made earlier in the LVIA, GLVIA3 suggests that the baseline against which the effects are considered in this part of the report should include other wind farms which are operational or under construction but not those which are consented (but not as yet built) and those in planning. However, in the case of this assessment it has been deemed appropriate to also include consideration of the consented, but not yet under construction, turbines at Douglas West, Dalquhandy, Cumberhead and Poneil wind farms within the baseline. Therefore, in the discussion below it is important to recognise that the Hagshaw Hill Extension, Nutberry, Galawhistle, and Hazelside Farm wind farms/turbines are taken into account as part of the baseline alongside these other consented schemes. Other consented schemes in the wider landscape, or those in planning are addressed separately in the cumulative impact assessment, alongside a separate discussion of the proposed scoping schemes, in the vicinity of the site including Douglas West Wind Farm Extension and Cumberhead Revised.
- 6.7.31 To aid the consideration of effects on landscape character, the ZTV has been overlaid on the character types within 20 km of the site. This is illustrated in Figure 6.19.
- 6.7.32 Beyond a short distance from the site, the ground level components of the Proposed Development would not be visible and the substation/control/battery storage building(s) would not generally be visible beyond LCTs 7, 7B and 8. Therefore, impacts on landscape character as experienced in the wider landscape arise primarily in relation to the introduction of the proposed turbines into the landscape and the resultant impact on the perceptual experience of landscape character.
- 6.7.33 It is noted that in general, the magnitude of change in landscape character will incrementally decrease with distance from the turbines as they become gradually less prominent. Some of the character types considered in this appraisal extend from relatively close to the Proposed Development out to beyond 15 km from the site. Inevitably therefore, the effect on landscape character in the tract of landscape nearest the site will be more greatly affected than the same landscape character type at a greater distance from the site. As a consequence, it has been necessary to describe the effects on landscape character for some LCT/LCST in bands of distance from the site.
- 6.7.34 The Proposed Development (excluding existing access road) would be entirely located within LCT7 – Rolling Moorland Windfarm and LCT7 – Rolling Moorland, and therefore the Proposed Development will have a direct effect on the character of these LCTs. Effects on surrounding LCTs/LCSTs are considered to be indirect.
- 6.7.35 A summary of the effects on landscape character is presented in Table 6.5. Note that for all character types stated within Table 6.5 the duration of the Proposed Development is considered to be long term and the reversibility of this element is considered to be non-permanent.

*Landscape Character Types in which the Turbines are located*

LCT 7B – Rolling Moorland Windfarm

- 6.7.36 Eleven of the 14 Proposed Development turbines are located within this LCT which is defined to cover the area of rolling moorland in and around the Existing Development and Hagshaw Hill Extension turbines. As would be expected with the repowering of a wind farm which has its own named LCT sub type, the Proposed Development would occupy a substantial proportion of this relatively small LCT.
- 6.7.37 Analysis of Figure 6.19, which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be clear visibility of the entire Proposed Development from the whole of this particular LCT.

- 6.7.38 The ground level components of the Proposed Development (i.e. the access tracks and the crane hard standing areas) would also be visible throughout the LCT. The crane hardstanding areas would be prominent in their immediate environs but post-construction restoration works will improve the appearance of much of the land between and surrounding the proposed turbines. Once weathered, it is anticipated that the appearance of the hardstanding areas will not be vastly dissimilar to the land cover currently experienced across LCT 7B in relation to the Hagshaw Hill Extension. The substation/control building/battery storage facility and concrete batching area in the adjacent LCT7 landscape would also be visible across much of LCT7B.
- 6.7.39 It has already been established that there would be no significant effects on any existing landscape features. Therefore, the effects on landscape character within LCT 7B principally relate to the introduction of the new turbines (both those actually within the LCT and those directly adjacent in LCT 7).
- 6.7.40 The Proposed Development turbines would lie at the same level as the existing ground levels across the site and would not directly affect the landform or topography of the surrounding landscape to any significant degree. The existing profile of the rolling moorland across the site would prevail.
- 6.7.41 The structural form of the proposed turbines is such that a high degree of visual permeability would be maintained and hence the sense of openness experienced across the LCT would not be greatly altered by the introduction of the turbines. The proposed turbines are relatively slender structures which would not obstruct the longer distance views when experienced from any direction. Whilst undeniably tall structures, the scale of the underlying rolling moorland is of a medium to large scale. Within this context the proposed turbines would not diminish the overall scale of the local landscape although in the immediate vicinity of the turbines the presence of the turbines would be clearly dominant. It is therefore recognised that the introduction of the turbines and the movement of the blades when operating will be highly prominent becoming a characterising influence on the LCT alongside the existing Hagshaw Hill Extension turbines, and other turbines in the nearby local landscape.
- 6.7.42 There is little sense of remoteness or wildness in the LCT due to the existing wind energy development and the proximity to built development in the Douglas Valley and therefore the proposed turbines would not serve to diminish the wildness of the landscape.
- 6.7.43 The rotational speed of the proposed turbines is also relatively sedate, particularly when compared with the Existing Development turbines which have characterised the landscape over the last 23 years and therefore despite the movement of the blades the moorland would retain a slow pace of activity.
- 6.7.44 The Proposed Development would relate closely to the existing Hagshaw Hill Extension turbines in the same LCT and to the adjacent turbines in the LCT7 landscape both to the west and north east. Indeed, it could be argued that such is the established presence of wind energy in the vicinity, the boundary of the LCT 7B - Rolling Moorland Windfarm landscape could now already be said to extend to cover a greater area, including much of the nearby LCT7 Rolling Moorland and LCT7A Rolling Moorland Forestry landscape.
- 6.7.45 In this context of an established presence of wind energy in the local landscape, the potential for the Proposed Development to result in impact to the character of the landscape is diminished. Notwithstanding this it is recognised that due to the scale of the turbines proposed, within the relatively small LCT 7B landscape, which extends to no more than 2 km from the site, there would still be a high magnitude of change, resulting in a **major/moderate** effect on landscape character which would be significant and would be long term but non-permanent.

#### LCT 7 – Rolling Moorland

- 6.7.46 Three of the 14 Proposed Development turbines (along with the substation/battery/control building, construction compound and concrete batching area) are located within a relatively small unit or area of this LCT which covers the rolling moorland landscape to the west of the Hagshaw Hill Extension turbines on Avermarks Hill, up to the boundary with East Ayrshire approximately 2.5 km

- to the west. The three turbines are located towards the eastern extent of the area, adjacent to the existing Galawhistle and Hagshaw Hill Extension turbines.
- 6.7.47 Analysis of Figure 6.19, which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be clear visibility of the Proposed Development from much of this particular sub unit of the LCT, but with visibility more limited in the valleys formed by Monks Water and Galawhistle Burn.
- 6.7.48 The ground level components of the Proposed Development within this LCT (i.e. the access tracks, crane hard standing areas substation/battery/control building, construction compound and concrete batching area) would be visible from the whole of the eastern part of the LCT sub unit and would be prominent in their immediate environs. However, this is an area which is already heavily influenced by existing wind energy development, including the Galawhistle Wind Farm turbines which have been constructed in this section of the LCT since the character assessment was undertaken.
- 6.7.49 It has already been established that there would be no significant effects on any existing landscape features. Therefore, the effects on landscape character within this unit of LCT 7 principally relate to the introduction of the new turbines (both those actually within the LCT and those directly adjacent in LCT 7B).
- 6.7.50 The Proposed Development turbines would lie at the same level as the existing ground levels across the site and would not directly affect the landform or topography of the surrounding landscape to any significant degree. The existing profile of the rolling moorland across the site would prevail.
- 6.7.51 The structural form of the proposed turbines is such that a high degree of visual permeability would be maintained and hence the sense of openness experienced across the LCT would not be greatly altered by the introduction of the turbines. The proposed turbines are relatively slender structures which would not obstruct the longer distance views when experienced from any direction. Whilst undeniably tall structures, the scale of the underlying rolling moorland is of a medium to large scale. Within this context the proposed turbines would not diminish the overall scale of the local landscape although in the immediate vicinity of the turbines the presence of the turbines would be clearly dominant. It is therefore recognised that the introduction of the turbines and the movement of the blades when operating will be highly prominent becoming a characterising influence on the eastern section of the LCT sub unit, alongside the existing Galawhistle Wind Farm and Hagshaw Hill Extension turbines, and other turbines in the nearby local landscape.
- 6.7.52 Further to the west within the LCT unit, towards the boundary with East Ayrshire, in the vicinity of Hareshaw Hill and the upper slopes of Meikle Auchinstilloch, the influence of the Proposed Development turbines would begin to diminish, as they become a smaller element in the view, seen in the context of other existing turbines located in closer proximity, including the Galawhistle and Nutberry Wind Farm turbines located to the east and north-east respectively.
- 6.7.53 There is little sense of remoteness or wildness in the LCT sub unit due to the existing wind energy development and development along the A70, therefore the proposed turbines would not serve to diminish the existing wildness of this section of the landscape.
- 6.7.54 The Proposed Development would relate closely to the existing Galawhistle Wind Farm turbines in the same LCT and to the adjacent Hagshaw Hill Extension turbines in the LCT7B landscape to the north. Indeed, as noted above in relation to LCT 7B, it could be argued that such is the established presence of wind energy in the vicinity, the boundary of the LCT 7B - Rolling Moorland Windfarm landscape could now already be said to extend to cover a greater area, including much of this unit of LCT7 Rolling Moorland landscape and the adjacent LCT7A Rolling Moorland Forestry landscape.
- 6.7.55 In this context of an established presence of wind energy in the local landscape, the potential for the Proposed Development to result in impact to the character of the landscape is diminished. Notwithstanding this it is recognised that due to the scale of the turbines proposed, within this relatively small sub unit of LCT 7, which extends to no more than 2.5 km from the site, there would still be a high magnitude of change, resulting in a **major/moderate** effect on landscape character which would be significant and would be long term but non-permanent.

- 6.7.56 Aside from the area of LCT 7 within which the Proposed Development is partly located there are seven further discrete areas of the same type within 10 km of the Proposed Development.
- 6.7.57 Figure 6.19, which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be visibility of the Proposed Development from some section of each of these areas, which are discussed in turn below.
- 6.7.58 One small area of LCT7 lies around 2 km to the north-east of the Proposed Development. The consented Douglas West Wind Farm lies within this sub unit and has changed the character of the small area such that it can already be considered to be characterised by wind energy and would already in reality now form part of an extended area of LCT7B – Rolling Moorland Windfarm. In this context it is not considered that any view of the Proposed Development from this area would have the potential to change this existing character and so there would be no effect on this landscape sub unit.
- 6.7.59 A further very small area of LCT7 lies around 4 km to the north-west, surrounded by Cumberhead Forest on three sides, in the vicinity of Cumberhead. The ZTV indicates that there would be limited visibility of the Proposed Development from this area, which lies close to the existing Nutberry Wind Farm turbines and in future the consented Dalquhandy Wind Farm. In this context it is not considered that there would be any more than a negligible effect on the character of this landscape sub unit.
- 6.7.60 The other sub unit of LCT 7 within 10 km to the north of the site, covers a tract of landscape which begins around 6 km to the north-west, beyond Cumberhead Forest, and covers the landscape around Grouse Hill, Dunside Rig and Auchrobert Hill. The ZTV indicates that there would be partial visibility of the Proposed Development from this area, on the upper slopes of the moorland. Wherever the Proposed Development would be visible from this area, there would already be existing views of wind energy in the vicinity of the site and visible wind turbines are an established feature of the character of this section of the landscape. In this context it is considered that there would be no more than a low magnitude of change, resulting in a **minor** effect on landscape character.
- 6.7.61 The landscape within 10 km to the south of the Proposed Development contains a further four sub units of the LCT 7 – Rolling Moorland. The closest of these areas to the site lies across the Douglas Valley to the south-east, beginning around 4 km away and covers the moorland landscape in and around Pagie Hill and Auchensaugh Hill. Assessment viewpoint 13 represents Auchensaugh Hill and serves to illustrate the landscape character of this area of LCT7, which is visible in the foreground of the view. The existing character of the landscape is one in which views of wind energy are a regular feature, be that the existing Hagshaw Hill Extension turbines in the direction of the site, or the Andershaw Wind Farm turbines, located to the south. In this context, the potential for the Proposed Development turbines to bring about a change to the character of this area is reduced. Notwithstanding this, the turbines would form a new element which was visible from this part of the landscape which would serve to reinforce the existing influence of wind energy on the character of the area. In this context it is considered that there would be no more than a medium magnitude of change, resulting in a **moderate** effect on landscape character, which would be significant.
- 6.7.62 An additional area of LCT7 lies to the south-west of the site, covering a tranche of the landscape between the Douglas Water valley and Cairn Table, including the landscape around Little Cairn Table (517 m) and Urit Hill (451 m). The closest part of this area of LCT7 to the site lies around 3 km, with Cairn Table lying at 8 km. Assessment viewpoint 15 represents Cairn Table and serves to illustrate the landscape character of this area of LCT7, which is visible in the foreground of the view. Wind energy is an existing feature in views from this tract of the LCT7 landscape, with views from more elevated areas, of the schemes at Bankend Rig and Dungavel to the north-west, as well as the existing Galawhistle Wind Farm and Hagshaw Hill Extension turbines, to the north-east, in the direction of the site. In this context the turbines would represent a new feature in views from this tract of LCT, but one which would serve to reinforce the existing experience of wind energy as a part of the character of the landscape. It is considered that there would be no more than a medium magnitude of change, resulting in a **moderate** effect on landscape character up to a distance of 6 km

from the site, which would be significant. Beyond this distance, there would be no more than a low magnitude of change, resulting in a **minor** effect on landscape character.

- 6.7.63 The two remaining areas of LCT7 to the south of the site cover tracts of the landscape around Pinkstone Rig and White Hill, and also the area extending between Auchendaff Hill and Cairn Kinney. Both of these sections of the landscape generally lie at least 5 km from the Proposed Development and in the case of the landscape in and around Cairn Kinney, the potential visibility of the turbines is limited to the upper slopes of the hillsides only. Assessment viewpoint 11 represents Cairn Kinney and serves to illustrate the landscape character of this area of LCT7, which is visible in the foreground of the view. The existing Andershaw Wind Farm turbines are a notable feature when viewed from this part of the landscape in addition to the existing Galawhistle Wind Farm and Hagshaw Hill Extension turbines, in the direction of the site to the north. This context serves to limit the potential for additional wind turbines at a distance of at least 5 km to impact on the character of the landscape, in which views of wind energy are an existing feature of its character, in particular when views are available in the direction of the site. It is considered that there would be no more than a medium magnitude of change, resulting in a **moderate** effect on landscape character up to a distance of 6 km from the site, which would be significant. Beyond this distance, there would be no more than a low magnitude of change, resulting in a **minor** effect on landscape character.

Other Landscape Character Types within 10 km

- South Lanarkshire

LCT 8 – Upland River Valley

- 6.7.64 LCT 8 occurs in two discrete locations within 10 km of the site (associated with Douglas Water to the south-east and River Nethan to the north).
- 6.7.65 The Douglas Water area of LCT 8 lies closest and the boundary of this area is approximately 1.5 km to the south-east of the nearest proposed turbine location.
- 6.7.66 Analysis of Figure 6.19, which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that theoretically there would be visibility of the turbines throughout this area of LCT 8. In this case, it is important to stress the theoretical aspect of the ZTV. Long Plantation lies along the northern edge of the LCT and there are further plantations elsewhere within this area of LCT 8 which would limit views of the turbines. The result of this is that the theoretical extents of the illustrated ZTV within LCT 8 are notably more extensive than would actually be the case once the screening effect of vegetation is taken into account.
- 6.7.67 For instance, the ZTV suggests theoretical visibility across the whole of Long Plantation itself from within which there would be no view of the turbines. It is recognised however that on the south-eastern side of Douglas Water and rising up the valley past Douglas, the proposed turbines would be prominent where they are not screened by vegetation or built form. This can be seen with reference to the visualisations prepared for assessment viewpoints 1, 3, 12, 16 and 17.
- 6.7.68 The Hagshaw Hill Extension and the Hazelside turbines are already visible from this same tract of land, as will the consented Douglas West Wind Farm turbines once they are built, and therefore the Proposed Development turbines would not become the first or only turbines visible from within this valley. In certain locations, primarily towards the southern section of this area of LCT 8 the proposed turbines would be more prominent in the view by virtue of their larger size. However, where the proposed turbines would be visible, it would be evident that they related to the upper sections of the rolling moorland landscape, and were separated from the lower lying valley landscape of the Douglas Water in which the character area is located.
- 6.7.69 In this context, it is not considered that the Proposed Development turbines would have such a degree of impact on the sense of scale, or prevent an appreciation of the underlying valley, to the extent that they would prevent an understanding of the existing landscape character.
- 6.7.70 It is recognised that within this LCT, (where vegetation or buildings do not obstruct views of the turbines), and in the scenario where both the Existing Development and the consented Douglas West Wind Farm do not form part of the baseline of the view, the Proposed Development would

give rise to a high magnitude of change in the character of the valley at distances of up to 3 km from the proposed turbines and that this would result in a **major/moderate** effect which would be significant. However, with the consent granted to Douglas West Wind Farm, it is the assessment of this area which is set out in cumulative scenario 1, discussed subsequently in this chapter, where a moderate effect is identified which is more relevant consider. Between 3 km and 4.5 km within this area of LCT8, there would be no more than a medium magnitude of change to character as the influence of the proposed turbines when compared with the existing turbines already present within views would reduce. In particular, visibility within the core of Douglas would be limited by other buildings within the village itself. Therefore, there would be a **moderate** and significant effect on the section of the LCT between 3 km and 4.5 km of the site. For the remainder of LCT8 beyond 4.5 km from the site, the impact would reduce to low with a minor to moderate effect, which is not significant.

- 6.7.71 At its closest, the River Nethan area of LCT 8 lies approximately 3 km to the north of the nearest proposed turbine but extends to over 8 km away. Analysis of the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that theoretically there would be visibility of the turbines throughout the majority of this area of LCT 8, with the exception of the Logan Water valley. However, in reality the lower slopes of parts of the River Nethan valley are well wooded and actual visibility would be considerably less than indicated by the ZTV.
- 6.7.72 From a few upper slopes of this valley the turbines would be visible where intervening vegetation does not obstruct views. The forested rolling moorland, including Shiel Plantation to the north of the Proposed Development site forms the context of the view in which the Nutberry Wind Farm turbines are already prominent on the skyline, and the consented turbines at Dalquhandy Wind Farm and Cumberhead Wind Farm would also be notable features in due course once they were constructed. In this context, the potential for the Proposed Development to impact on the character of the landscape, which is already heavily influenced by wind turbines, is diminished.
- 6.7.73 Within this part of LCT 8 (where the turbines were not screened by vegetation) the Proposed Development would have no more than a low magnitude of change on landscape character when considered against the established baseline resulting in a **minor** effect. Further away from the site within the LCT the effect on landscape character would further diminish. There would be no significant effect on any part of this area of LCT 8.

#### LCT 8A – Upland River Valley Incised

- 6.7.74 The area of LCT 8A within the vicinity of the site covers the section of the Douglas Water valley to the west of Glespin, and the Kennox Water valley which runs as a tributary to the Douglas Water. At its closest point the LCT lies within around 1 km to the south of the site and extends to approximately 5k m away at the head of the Kennox Water valley.
- 6.7.75 Analysis of Figure 6.19, which shows the ZTV to blade tip indicates that some sections of the Douglas Water valley to the immediate west of Glespin would have no visibility of the Proposed Development due to the screening effects of the sharply inclined valley sides. Similarly, visibility would also not be available from a tract of the landscape in the vicinity of Glenbruck Loch, due to screening by the adjacent hillsides of Shiel Hill. From the remainder of the LCT there would be the potential for visibility of the proposed turbines and in some cases at relatively close proximity, however in all cases where the turbines would be seen there are already views of existing turbines, in particular the Galawhistle Wind Farm, which are an existing component of the landscape character, and these serve to reduce the potential for the Proposed Development turbines to bring about a change to the character of the landscape.
- 6.7.76 Notwithstanding this, it is recognised that due to the scale of the Proposed Development, within some sections of the closest parts of this relatively small sub unit of LCT 8, extending to no more than 2.5 km from the site, there would be a medium to high magnitude of change, resulting in a **moderate** effect on landscape character which would be significant. Beyond this distance the magnitude would reduce to medium and the effect would become **moderate**, but not significant in the context of the other built wind energy development present in the vicinity of the site.

#### LCT 5 – Plateau Farmland (excluding LCST 5B – Plateau Farmland Opencast Mining)

- 6.7.77 A large area of LCT 5 extends from approximately 3 km to the north-east of the proposed turbines to over 15 km away. As a consequence of the size of this area, effects on landscape character across this tract of LCT 5 will inevitably decrease with distance from the site.
- 6.7.78 Analysis of Figure 6.19, which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be clear visibility of the proposed turbines from almost all of the section of the LCT between Junction 12 of the M74 and Lesmahagow, but that west and north-west of Lesmahagow, visibility would become intermittent or restricted by landform. However, from this section of the landscape wind turbines already form a prominent element of the landscape character, and this will be particularly the case once the consented Douglas West Wind Farm, Dalquhandy Wind Farm and Poneil turbines are constructed. As a consequence of this, the potential for the Proposed Development to impact on the character of the landscape is reduced.
- 6.7.79 Assessment Viewpoints 1, 2 and 4 are located within this LCT, with VP1 representative of the closest point within the LCT to the Proposed Development.
- 6.7.80 At 3 km from the Proposed Development the turbines would be clearly noticeable elements of the view, where in some cases intervening obstructions such as woodland and buildings do not provide screening, however they would be less prominent than the existing wind energy which is already visible. Furthermore, as distance increases from the turbines whilst much of this LCT is very open, it is punctuated by infrastructure such as pylons and highways which are also notable existing influences on the character of the landscape.
- 6.7.81 Within that part of LCT 5 – Plateau Farmland which lies west of the B7078 and south of the row of pylons which run south of Auldtonheights (i.e. within approximately 3 to 7 km of the proposed turbines) the Proposed Development would have a medium magnitude of change on landscape character when considered against the current baseline. Within this part of LCT 5, there would be a **moderate** effect, which would be significant. North of this row of pylons and west of Lesmahagow, whilst in some locations the turbines would remain visible, the magnitude of change in landscape character would be less as other existing built infrastructure gains greater prominence in the landscape and the proposed turbines become indistinguishable amongst the overall cluster of wind energy development at the locality of the site. Therefore, beyond a distance of approximately 7 km from the site there would be no more than a low magnitude of change resulting in a **minor** effect.
- 6.7.82 A further small area of LCT 5 covers the landscape just to the south of the Logan Water, around 5 km to the north of the site. Between this tract of landscape and the site lies the Nutberry wind farm and a number of the Galawhistle turbines, and the effects of these schemes on the character of the area will be further reinforced following the construction of the Cumberhead Wind Farm and Dalquhandy Wind Farm. In this context the potential for the Proposed Development to bring about a change to the character of the landscape is severely limited and any effects on this area would therefore be no greater than minor.

#### LCT 6 – Plateau Moorland

- 6.7.83 LCT 6 occurs in two locations within 15 km of the site. The first area is geographically relatively modest in size compared to some other types in the study area. It lies between around 3 km and 5 km of the site. Whilst defined separately in the landscape character assessment, it shares many of its characteristics with LCT 5 as discussed above and is in reality only differentiated by the predominance of moorland land cover instead of farmland. However, it should be noted that much of this area has been planted with forestry in recent years and in a number of years it would probably be appropriate to reclassify this area as LCT 6A – Plateau Moorland Forestry.
- 6.7.84 Analysis of the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be clear visibility of the proposed turbines from the vast majority of the LCT although recently planted forestry is starting to restrict visibility slightly and the effect of this will increase over time.
- 6.7.85 Across this area of LCT 6 the turbines would be noticeable where intervening vegetation does not obstruct views but would be seen in the context of multiple other operational and consented wind energy developments, much of which would lie in the foreground of the view when compared to

the Proposed Development. The existing schemes already have a notable influence of the character of the landscape and this would be heavily reinforced by the additional consented schemes once they are built out, as discussed separately in cumulative scenario 1, later in the Chapter.

- 6.7.86 Within the current context, this area of LCT 6 would experience no more than a medium magnitude of change on landscape character when considered against the baseline. Within this part of LCT 6 there would be a **moderate** effect, which would be significant.
- 6.7.87 The second area lies between Auchensaugh Hill and Crawfordjohn, 6 km to the south-east of the site at its closest point. The area includes the site of the Middle Muir Wind Farm which is currently under construction and lies only partly within the ZTV of the proposed turbines. In the context of the Middle Muir Wind Farm turbines and the adjacent Andershaw Wind Farm, which is already operational, there would be limited potential for the Proposed Development to result in any impact to the character of this area of LCT. There would be no more than a low magnitude of change and a **minor** effect, as a result of the Proposed Development.

#### LCT 10 – Foothills

- 6.7.88 There is one area of LCT 10 within 15 km of the site, lying around 7 km to the east of the site at its closest point and covering the landscape to the east of the B7078. The area has partial coverage on the ZTV to blade tip, generally the western facing slopes of the hills. The M74 lies in the foreground of the view towards the proposed turbines and in the vicinity of the site there are already numerous operational and consented wind energy developments. In this context, and with regard to the other built infrastructure in the same direction (including the large industrial units at Poniel, pylons and the operational turbines outlined above) and the distance from the site, there would be no potential for greater than a **minor** effect on the landscape character of the area.

#### LCT 9 – Broad Valley Uplands

- 6.7.89 LCT 9 only occurs in one location within 10 km of the site, along the Douglas Water, and at its closest lies approximately 7 km north-east of the site but it also extends to beyond 20 km away.
- 6.7.90 Analysis of the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be clear visibility of the proposed turbines from most of the LCT. However, that part of the LCT which lies closest to the proposed turbines is either within or directly behind Happendon Wood such that in reality visibility of the turbines would be restricted to beyond 8 km in this LCT.
- 6.7.91 Beyond 8 km and where there are no obstructions, the proposed turbines would be visible in this LCT in a south westerly direction up the broad valley with the forested moorlands as the backdrop. Viewpoints 5 and 7 a representative of the views from within this LCT.
- 6.7.92 In views from this area, the Hagshaw Hill Extension turbines are already visible, adjacent to the site, as are the Nutberry Wind Farm turbines. These will be supplemented by views of the Poniel, Douglas West Wind Farm and Dalquhandy Wind Farm turbines once these are constructed, such that views in the direction of the site from the LCT were already characterised by turbines.
- 6.7.93 In the context of other built infrastructure in the same direction (including the large industrial units at Poniel, pylons and the operational turbines outlined above as well as single turbines in the intervening farmland) the potential for the proposed turbines to have a notable impact on the character of the landscape is reduced. There would be no potential for greater than a low to very low magnitude of change and a **minor** effect.

#### Other Landscape Character Types within 10 km

##### - East Ayrshire

#### LCT 10 –Upland River Valley

- 6.7.94 East Ayrshire LCT 10 covers the landscape along the River Ayr valley westwards from the boundary with South Lanarkshire, near Glenbuck, which lies around 3 km from the site, and extends for around 15 km. LVIA viewpoint 10 is located in Muirkirk, within this landscape character area and serves as useful indicator of the potential impact on those parts of the landscape from which the turbines would be visible.

6.7.95 Much of the landscape of this LCT from the Local Authority boundary up until Muirkirk would have reduced visibility of the Proposed Development, with no sections of this area having theoretical visibility of all of the Proposed Development turbines. From locations where the turbines would be visible there are existing views of the Galawhistle Wind Farm and Hagshaw Hill Extension turbines in the same angle of view. The Galawhistle turbines are located closer to the viewer on the elevated ground of Hareshaw Hill, such that notwithstanding their greater height, the Proposed Development turbines do not extend the vertical height of visible turbines in the landscape beyond that which is already established by the Galawhistle Wind Farm. In this context, the potential for the Proposed Development turbines to result in a change to the character of the landscape is reduced. Whilst they would form noticeable features in the view from parts of the LCT 10 landscape, the turbines would not introduce a new element which was not already an established feature of the character of the landscape in views westwards towards South Lanarkshire. There would be no greater than a medium impact and a **moderate** effect to the character of the landscape, which would not be significant, and which would further reduce with increased distance along the Ayr Valley away from the site.

LCT 18a – East Ayrshire Plateau Moorlands

6.7.96 The landscape of LCT18a covers the area both to the north and south of the Ayr River Valley to the west of the site and extends across a large tract of the landscape to the south-west of the site including land beyond 20 km away from the Proposed Development. ZTV coverage over this area is generally limited, with coverage within 15 km focussed on the areas around Sclanor Hill, Middlefield Law and to the north of Wardlaw Hill.

6.7.97 The landscape around Sclanor Hill lies immediately adjacent to the boundary with South Lanarkshire and is in effect an extension of the rolling moorland landscape in which the site is located. The area lies in very close proximity to the Galawhistle Wind Farm, views of which already form a key characteristic of the landscape in this area. In this context, whilst the Proposed Development turbines would be noticeable elements in the view at a distance of around 4.5 km away they would result in no more than a **moderate** effect on the character on this tract of the LCT18a landscape, which would not be significant.

6.7.98 The landscape around Middlefield Law lies around 10 km to the west of the site, with Middlefield Law itself rising to 466 m. The area is part of an expansive section of the plateau moorlands from which long distance view are available, in which wind energy development is a noticeable feature in several directions, including the existing developments in the vicinity of the site, in particular the Galawhistle Wind Farm turbines. In this context, the proposed turbines would not add an element to the characteristics of the landscape around Middlefield Law which is not already feature. At a distance of around 10 km away the turbines whilst visible, would not result in more than a **minor to moderate** effect on the character of the landscape.

6.7.99 The landscape to the north of Wardlaw Hill, including Wood Hill slopes gradually down towards the River Ayr valley to the north and lies generally, over 10km from the site. A broad expanse of moorland, the area is already partly characterised by distant views of wind energy development, including the Galawhistle scheme in the vicinity of the site. The consented wind farm schemes at Penbreck and Kennoxhead will introduce further wind turbines between Wardlaw Hill and the Proposed Development site. The proposed turbines would be noticeable in the landscape, but in the context of their distance and given the existing turbines already present (and soon to be present) in views in the same direction the potential for impacts to landscape character would be no more than **minor**.

Other Landscape Character Types between 10km and 15km

- South Lanarkshire

LCT 4 - Rolling Farmland

6.7.100 LCT 4 occurs in three separate locations within 15 km of the site. The first of these, in the landscape to the south of Strathaven, lies entirely outside the ZTV of the Proposed Development and would have no visibility of the scheme. The second of the areas lies to the west of New Lanark, on the south-western side of the river Clyde. There is only partial visibility of the Proposed Development

from this tract of the LCT, mostly towards its southern section, which lies a minimum of 11 km from the site. Wind energy is already an established feature of views from this section of the landscape, and in the direction towards the site there are already turbines visible in the middle distance of the landscape along the M74 corridor, as well as in the immediate vicinity of the site itself. In this context, whilst the turbines may be a noticeable feature in views from some parts of this area of LCT 4, there would be no potential for greater than a **minor to negligible** effect.

- 6.7.101 The final area of LCT 4 within 15 km of the site lies on the opposite side of the River Clyde and covers the landscape to the south and south-east of New Lanark. Much of the area lies within the ZTV of the Proposed Development, but this does not pick up the woodland which characterises parts of this section of the landscape and would serve to restrict views. With a closest point to the site from this area of around 14 km, again whilst noticeable there would be no potential for greater than a **minor to negligible** effect on the character of the landscape.

LCT 11 - Prominent Isolated Hills

- 6.7.102 There are two areas of LCT 11 which lie within 15 km of the site, both of which are located to the east of the Proposed Development. The first area covers the Tinto Hills and lies around 13 km from the site at its closest point. Much of the area lies outside of the ZTV but some upper section of the hills, including the summit of Tinto Hill itself, would allow for views of the Proposed Development. The visualisations prepared for LVIA viewpoint 8 illustrate the view from Tinto Hill and demonstrates the extent to which already consented turbines in the same angle of view as the Proposed Development would already characterise the landscape in this direction, a matter addressed in cumulative scenario 1. In the current context, the proposed turbines would be a noticeable additional feature in the landscape, which would extend the visibility of turbines to a greater vertical extent than the existing turbines seen in this direction, but would not form such a notable new element in the view as to represent more than a **moderate** effect on the character of the landscape, which would not be significant, in those sections of LCT 11 from which the scheme would be visible.

- 6.7.103 The second area of LCT 11 covers Dungavel Hill, which also lies around 13 km to the east of the site. In a similar manner to the experience from the Tinto Hills, from this small tract of landscape the turbines would be seen in the context of numerous other turbines. As such, the Proposed Development whilst appearing as the tallest element of the visible wind energy developments, would not appear incongruous with the existing characteristics of the landscape. There would be no more than a **moderate** and non-significant effect on the character of the Dungavel Hill tract of LCT 11.

LCT 13 – Southern Uplands and 13C - Southern Uplands Leadhills

- 6.7.104 There are a number of tracts of LCT 13 in the landscape beyond 10km to the south-east of the site. From these areas ZTV coverage of the site is generally limited to upper slopes with a north-west facing aspect. In addition, LCT 13C also lies in this same vicinity, extending to a distance of over 15 km from the site. In this area of the landscape the existing Andershaw Wind Farm and adjacent under construction Middle Muir Wind Farm are visible in the mid distance of the view with the site seen beyond, in the vicinity of the existing cluster of consented developments around Hagshaw Hill. In the context of views in which wind energy is already a notable element of the character the Proposed Development would not introduce a feature which was not in keeping with the existing experience of the landscape. As such whilst noticeable as a distinct element of the view the potential for effects on the overall character of the landscape would be limited and would be no greater than **minor**.

Other Landscape Character Types between 10 km and 15 km

- Dumfries and Galloway

LCT 19 – Southern Uplands

- 6.7.105 There is one Character type in Dumfries and Galloway within 15 km which would have the potential for visibility of the Proposed Development, the Southern Uplands. From this area, which begins approximately 10 km from the site, there is limited theoretical visibility of the Proposed Development on the ZTV, with views limited to the uppermost sections of the landscape. From these

upper slopes, there are generally panoramic views available across the wider landscape including existing wind turbines in a number of different directions. Where the Proposed Development turbines would be seen they would be viewed in the context of other immediately adjacent schemes and overall there would be no potential for greater than a **negligible** effect on the character of the Southern Uplands landscape.

**Table 6.5 - Summary of Effects on Landscape Character**

Landscape Character Type/Sub-type	Sub Area/Location	Magnitude of Change	Level of Effect	Significant
<b><i>Landscape Character Types in which the Turbines are located</i></b>				
7B. Rolling Moorland Windfarm	Up to 2 km from the site	High	Major/moderate	Yes
7. Rolling Moorland	Sub-areas up to 2.5 km from the site	High	Major/moderate	Yes
	Sub-areas between 2.5 km and 6 km from the site	Medium	Moderate	Yes
	Sub-areas beyond 6 km from the site	Low	Minor	No
<b><i>Other Landscape Character Types within 10km</i></b>				
8. Upland River Valley	Up to 3 km from the site	High	Major/moderate	Yes
	Between 3 km and 4.5 km from the site	Medium	Moderate	Yes
	Beyond 4.5 km from the site	Low	Minor to Moderate	No
8A. Upland River Valley Incised	Up to 2.5 km from the site	Medium to High	Moderate	Yes
	Beyond 2.5 km from the site	Medium	Moderate	No
5. Plateau Farmland (excluding 5B. Plateau Farmland Opencast Mining)	Area west of the B7078 and south of the row of pylons which run south of Auldtonheights (i.e. within approximately 3 to 7 km of the Proposed Development turbines)	Medium	Moderate	Yes
	Beyond 7 km from the site	Low	Minor	No
6. Plateau Moorland	Area between around 3 km and 5 km of the site	Medium	Moderate	Yes
	Area between Auchensaugh Hill and Crawfordjohn	Low	Minor	No
10. Foothills	Area lying around 7 km to the east of the site at its closest point	Low	Minor	No
9. Broad Valley Uplands	Area along the Douglas Water, at its closest approximately 7 km north-east of the site	Low to very low	Minor	No
10. Upland River Valley (East Ayrshire)	Area which lies around 3 km from the site and extends for around 15 km	Medium	Moderate	No
	Area around Sclanor Hill	Medium	Moderate	No

Landscape Character Type/Sub-type	Sub Area/Location	Magnitude of Change	Level of Effect	Significant
18a. Plateau Moorlands (East Ayrshire)	Area around Middlefield Law	Low to Medium	Minor to Moderate	No
	Area to the north of Wardlaw Hill	Low	Minor	No
<b><i>Other Landscape Character Types between 10km and 15km</i></b>				
4. Rolling Farmland	All sub-areas	Very Low	Minor to Negligible	No
11. Prominent Isolated Hills	Tinto Hills Area and Dungavel Hill area	Medium	Moderate	No
LCT 13. Southern Uplands	All sub-areas	Low	Minor	No
13C. Southern Uplands Leadhills	Area south-east of the site	Low	Minor	No
19. Southern Uplands (Dumfries and Galloway)	Area beginning around 10 km to the south	Very Low	Negligible	No

#### **Effects on Landscape Character during Decommissioning**

- 6.7.106 It is recognised that there would be some additional temporary effects during decommissioning of the Proposed Development after 30 years over and above those assessed under the heading of 'Operational Effects' above. The additional effects resulting from decommissioning activities would be localised and relatively incidental when viewed in the context of the Proposed Development being removed.
- 6.7.107 The effects on landscape character would therefore decrease incrementally as decommissioning progresses and as more turbines and associated foundations and hardstanding are removed.
- 6.7.108 The effects would be similar to those during the construction phase but in reverse.
- 6.7.109 Overall, it is considered that there would be a low magnitude of additional change (over that during the operational phase) for the reasons outlined above. This would result in no greater than a **minor** temporary effect on the Rolling Moorland and Rolling Moorland Windfarm LCTs within which the Proposed Development is located. Beyond the site, in the context of the other existing wind energy developments in the immediate vicinity the effects on landscape character would be no more than **minor to negligible**. The decommissioning effects would be temporary in nature and are unlikely to all occur at the same time during this phase.
- 6.7.110 The decommissioning effects of the development on landscape character are deemed to be **not significant**.

#### **Douglas Valley Special Landscape Area**

- 6.7.111 The Validating Local Landscape Designations (VLLD) report produced by South Lanarkshire (Nov 2010) sets out that the various SLA descriptions should incorporate landscape character and landscape qualities. It is therefore appropriate to consider the various assessments for the relevant identified landscape character types as set out above when considering effects upon the Douglas Valley SLA.
- 6.7.112 The VLLD report goes on to suggest that information should be recorded for the various aspects of landscape character including: typicality, rarity or uniqueness and condition or quality as well as landscape qualities including: Scenic, Enjoyment, Cultural and Naturalness. Both landscape character aspects and landscape qualities have been taken into consideration when determining the various landscape sensitivities as set out above and resulting effects on the various landscape

character types. Therefore, the above judgements about effects on landscape character can be read as a representation of the effect on the Special Landscape Area designation.

6.7.113 The Douglas Valley Special Landscape Area comprises a number of Landscape Character types as follows:

- 5 Plateau Farmland;
- 7 Rolling Moorlands;
- 8 Upland River Valley;
- 8A Upland River Valley Opencast Mining;
- 9 Broad Valley Upland; and
- 10 Foothills

6.7.114 When referring to area '8A' Upland River Valley Opencast Mining', it is assumed that this is a typographic error as the correct numbering as stated elsewhere in the Validating Local Landscape Designations (VLLD) report (South Lanarkshire Nov 2010), is '8B'. Additionally, the Landscape Character Type within which the Proposed Development is located, LCT 7 Rolling Moorland Windfarm, was also omitted from the list within the VLLD.

6.7.115 VLLD describes the Douglas Valley SLA as follows:

*"The Douglas Valley is a sheltered valley containing a well preserved designed landscape with significant mature woodland planting. It is centred around the historic village of Douglas and provides an accessible, contained and tranquil landscape in contrast to the open and expansive rolling moorland to both the south and north of the valley."*

6.7.116 VLLD acknowledges that the Existing Development and the Hagshaw Hill Extension 'have and will continue to affect the landscape' of the SLA. However, the document considers that these developments are 'relatively limited or transient features that will not affect the key landscape characteristics sufficiently to be excluded from the designated area'.

6.7.117 It is noteworthy that the boundary of the Douglas Valley SLA was drawn to incorporate part of the Existing Development. This demonstrates that wind farm development can be accommodated both immediately adjacent to an SLA and also within the designated landscape without detrimental effects upon the overall quality and integrity of the designated landscape area. In this regard, it is noted that a number of other wind energy developments have been consented within or close to the Douglas Valley SLA since the VLLD was published.

6.7.118 VLLD goes on to identify the significance of the scenic and cultural features of the Douglas Valley SLA, which are as follows:

- *Scenic compositional qualities of a meandering upland river passing through a sheltered, mature pastoral landscape enclosed by moorland hills;*
- *Cultural features include the designed landscape of the Douglas Castle and historic village of Douglas together and their historic associations with the Douglas Family, the Cameronians regiment and literary associations with Sir Walter Scott;*
- *A network of mature policy woodlands and shelterbelts and a high quality water environment; and*
- *Frequently visited, as the M74 passes through the eastern end of the designated area and intersects with the main east-west route of the A70 which passes along the valley. The village and castle are visitor destinations with well-maintained footpaths through the designed landscape.*

6.7.119 Having regard to the scenic compositional qualities of the Douglas Valley, it is considered that the Proposed Development would not detrimentally affect the notable landscape fabric of the SLA as described within the VLLD. The Proposed Development would be located on the uppers slopes of

the rolling moorland, beyond the ‘*meandering upland river*’ landscape, and as such would appear separate to the distinctive pastoral lower lying landscape of the SLA.

- 6.7.120 VLLD states, with regards to the choice of boundary for the Douglas Valley SLA, that the boundary considers the visual envelope and setting of the valley and that it includes Hagshaw Hill, which encloses the valley in views to the west and north. The north western boundary is noted to follow ‘*the hill crest and forestry boundary of Curly Brae towards Douglas West. It then rises to meet the hill crest and forestry on Hagshaw Hill to join the western boundary at Wedder Hill*’. When viewed on an accompanying plan (See Figure 6iv of VLLD), it is noted that the boundary of the SLA largely reflects physical boundaries of forestry, fences, watercourses, and the interface between forestry and moorland.
- 6.7.121 It is acknowledged that the Proposed Development is located within the SLA, but the character of this upland section of the SLA landscape is markedly different to the core lower lying Douglas Water Valley landscape and has been acknowledged to be able to accommodate wind energy development without detrimentally altering the perception or enjoyment of the core SLA landscape.
- 6.7.122 In terms of impact on cultural features, whilst it is noted that the Proposed Development has the potential to result in visual effects upon views from certain more elevated, south eastern, parts of the grounds of the Douglas Castle, it is noted that the existing Hagshaw Hill Extension and Hazelside turbines are also visible from Douglas Castle and its grounds, and from the majority of the Douglas Valley, as will be the case for parts of the consented Douglas West Wind Farm, as discussed in cumulative scenario 1. Whilst the Proposed Development will appear larger in certain views within the grounds of the Douglas Castle than the existing built turbines, they will not affect the ability to perceive and appreciate the cultural features located within the Douglas Valley. Further assessment is given to the impact of the Proposed Development on Cultural Heritage features within Chapter 10 of the EIA Report.
- 6.7.123 The Proposed Development would not adversely affect the network of mature policy woodlands and shelterbelts and a high quality water environment within the Douglas Valley.
- 6.7.124 In terms of the Proposed Development’s impact on visitor routes and attractions within the area, a detailed assessment of these potential impacts has been undertaken and it is considered that although the Proposed Development would give rise to some limited worst case major effects upon routes that could be used by tourists and visitors to the Douglas Valley, such effects would not have a detrimental impact on the overall perception of the SLA as an attractive valley landscape. It is considered that the most visited parts of the SLA are the village of Douglas and the Douglas Castle Grounds which, once there, feel quite separate from the upper slopes of the hill ground beyond.
- 6.7.125 Based on the findings of likely effects upon landscape character as set out above, it is assessed that there would be a range of landscape effects on the Douglas Valley SLA, from major/moderate where the Proposed Development is located, to no effect where there is very limited intervisibility between the Proposed Development and wider reaches of the SLA. The areas assessed as being of a major/moderate and significant effect are relatively localised and occur due to the close proximity of these areas to the Proposed Development. It should be noted that the impacts on this SLA are limited due to the varying degrees of intervisibility across and area which is currently influenced by wind turbine development in the form of Hagshaw Hill Extension, Hazelside Farm turbines, Galawhistle Wind Farm and Andershaw Wind Farm. The consented Douglas West Wind Farm will also influence the character of parts of the SLA once built, as discussed further in cumulative scenario 1.
- 6.7.126 It is therefore considered that there would be an overall **Moderate** but not significant level of effect on the Douglas Valley SLA (whilst recognising that the effect would be major/moderate in some locations and less than moderate elsewhere).
- 6.7.127 In summary, having regard to the potential impact of the Proposed Development on the key scenic and cultural features of the Douglas Valley SLA, it is considered that the worst case effects identified would not detrimentally affect the overall quality and perception of the designated landscape area.

## ***Assessment of Visual Effects at Representative Viewpoints***

### **Construction Effects**

- 6.7.128 Beyond the immediate vicinity of the site, ground level activity associated with the turbine construction would not be clearly visible or discernible from the vast majority of the study area and therefore, from the majority of the assessment viewpoints, the only additional visual effects over and above those addressed under the heading of ‘Operational Effects’ would arise in relation to views of the cranes erecting the turbines. The cranes would be visible for a relatively short period and would be incidental when considered in the context of the turbines being erected. There are a number of locations within the study area that may experience glimpsed views of construction activity at ground level; however, it is assessed that any view of these works will also be incidental and **not significant**, in relation to the overall effects identified as a result of the Proposed Development.

### **Operational Effects**

- 6.7.129 A detailed viewpoint assessment of the operational phase effects is presented at Appendix 6.3 and this considers the long-term visual effects during the operational phase of the Proposed Development for each of the 17 assessment viewpoints agreed with ECU, SLC, EAC and SNH.
- 6.7.130 For each of the representative viewpoints, a short description is firstly given of the baseline view and a judgement is provided regarding the sensitivity of the key receptors likely to experience the view.
- 6.7.131 This is followed by a description of the features of the Proposed Development that would be visible from that viewpoint. This includes a description of how many turbine hubs and blades would be visible and also, where relevant, whether any ground level components of the Proposed Development would be visible. For each viewpoint, there is a comment on how vegetation, buildings or topography would affect the actual visibility of the turbines. A judgement is then provided as to the assessed magnitude of change that would be experienced at each viewpoint.
- 6.7.132 Following this, professional judgement is then provided regarding the resulting level of effect on the view and a statement is provided to clarify whether the effect is deemed to be significant or not.
- 6.7.133 A summary of the sensitivity of the view, magnitude of change in the view and level/significance of effect is given in Table 6.6. Where a viewpoint is representative of more than one type of visual receptor, the assessment carried forward to Table 6.6 is that which represents the most sensitive receptor group represented by the viewpoint.
- 6.7.134 It has been assessed that there would be a significant visual effect at 10 of the 17 representative viewpoints. These are as follows:
- Viewpoint 1 – Braehead, Coalburn;
  - Viewpoint 2 – M74 Overbridge;
  - Viewpoint 3 – Monument at Douglas Castle;
  - Viewpoint 4 – B7078 south of Lesmahagow Douglas;
  - Viewpoint 5 - A70 Rigside;
  - Viewpoint 9 – A70 east of Monksfoot Bridge;
  - Viewpoint 12 – A70, East of Glespin;
  - Viewpoint 13 - Auchensaugh Hill;
  - Viewpoint 16 –Douglas, Crabtree Street; and
  - Viewpoint 17 – Junction of A70 and Station Road, Douglas.

**Table 6.6 - Summary of Operational Effects on Assessment Viewpoints**

Name/Receptor	OS Grid Ref	Distance to nearest turbine	Sensitivity of the Receptor	Magnitude of Change	Level of Effect	Significant
1. Braehead, Coalburn	281527, 634520	3,778 m (T14)	High	Medium	Moderate	Significant
2. M74 Overbridge	284424, 635419	6,339 m (T14)	Medium	Medium	Moderate	Significant
3. Monument at Douglas Castle	284112, 631743	4,380 m (T6)	High	Medium	Moderate	Significant
4. B7078 south of Lesmahagow	283120, 637377	7,049 m (T14)	Medium	Medium	Moderate	Significant
5. A70 Rigside	287708, 635192	9,017 m (T14)	High	Medium	Moderate	Significant
6. Black Hill	283198, 643552	12,794 m (T14)	High	Medium to Low	Moderate to Moderate/Minor	Not Significant
7. Hyndford Bridge	291488, 641453	15,659 m (T14)	High	Low to Medium	Moderate/Minor to Moderate	Not Significant
8. Tinto Hill	295316, 634372	15,861 m (T6)	Very High	Low	Moderate/Minor	Not Significant
9. A70 east of Monksfoot Bridge	278760, 628789	1,172 m (T1)	Medium	High	Moderate	Significant
10. Victory Park, Muirkirk	269388, 627320	9,625 m (T1)	High	Medium	Moderate	Not Significant
11. Cairn Kinney	278468, 621429	8,136 m (T1)	High	Medium	Moderate	Not Significant
12. East of Glespin (on A70)	282035, 628719	2,463 m (T3)	Medium	High	Moderate	Significant
13. Auchensaugh Hill	285330, 627198	6,091 m (T3)	High	Medium	Moderate	Significant
14. Nether Wellwood (A70)	264995, 625824	14,252 m (T1)	Medium	Low	Moderate/Minor	Not Significant
15. Cairn Table	272410, 624235	8,279 m (T1)	High	Medium	Moderate	Not Significant
16. Douglas	283575, 631020	3,654 m (T6)	High	Medium	Moderate	Significant
17. Junction of A70 and Station Road, Douglas	283297, 630323	3,284 m (T6)	High	Medium to High	Moderate	Significant

### ***Assessment of Effects on Visual Receptor Groups***

- 6.7.135 From analysis of the assessment viewpoints it is possible to draw some conclusions about the level of effect on views and visual amenity experienced by different receptor groups at different distances from the Proposed Development.
- 6.7.136 In this section, the effects of the Proposed Development on various different visual receptor groups are considered.

#### **Construction Effects on Visual Receptor Groups**

- 6.7.137 It is recognised that there would be some additional temporary visual effects during the construction of the Proposed Development over and above those assessed under the operational phase.
- 6.7.138 The vast majority of effects, of note, when considering the construction phase would be experienced in the immediate vicinity of the site. Due to the nature of the surrounding landform and vegetation, the construction activities will not be visible from much of the surrounding area and hence have no more than a minor effect on visual receptors within the majority of these areas.
- 6.7.139 A number of Core Paths, Aspirational Core Paths and a Wider Network paths pass within close proximity as well as through the site including, CL/346/1, CL/3459/1, CL/3460/2, CL/3458/1, CL/3452/1, CL/3457/1 and CL/3344/2, along with a number of Aspirational Core Paths and Wider Network paths as illustrated at Figure 6.20.
- 6.7.140 Receptors using these routes would have largely unobstructed views of at least some of the construction activities associated with the Proposed Development. The clearest views would be experienced from the core path network which follows the access tracks of the Existing Development turbines, however, it is recognised that a temporary diversion of this route will be required during the construction phase.
- 6.7.141 It is assessed that there would be a worst-case medium magnitude of additional effect on these routes during construction, over and above the operational phase effects assessed below. This would result in a temporary **moderate** additional effect which would be significant and these effects need to be considered in conjunction with the operational effects identified below. However, it should be recognised that the Core Paths which are formed by the access tracks of the Existing Development only came into being as a consequence of them being laid out as access tracks to the wind farm. They are therefore inherently related to the development of wind energy at the site and would continue to be so should the Proposed Development be consented.

#### **Operational Effects on Visual Receptor Groups**

- 6.7.142 Views of the ground level components of the Proposed Development will be limited to a relatively short radius around the site. Except where indicated, the discussion below therefore relates primarily to views of the proposed turbines of the Proposed Development.

#### ***Residential Properties within 2 km of the Proposed Turbines***

- 6.7.143 There are 23 residential properties or groups of properties within 2 km of the proposed turbines, including the small village of Glespin. Of these, it is understood that Monkshead Farm is abandoned and no longer forms a residential property. In addition, Low Broomerside, is owned by the Applicant will be taken out of residential use. A further group of properties at Hazelside is also under the control of the Applicant, as is Blackwood Cottage. The properties are identified and assessed in detail within the Residential Visual Amenity Study (RVAS) presented at Appendix 6.4.
- 6.7.144 The RVAS concludes that there would be significant effects experienced at six of the assessed properties or groups, namely: The Shieling, Inches Cottage, Carmacoup Farm Cottage, Carmacoup Farm, properties at Hazelside Farm and Station House, but the residents would not experience such an overbearing effect on visual amenity that any property would become an unattractive place to live or visit.

- 6.7.145 A further property, Monksfoot, would experience a moderate, but non-significant effect, whilst the residents of the remaining properties would experience no greater than a **moderate/minor** effect on views from the property and curtilage.

Glespin

- 6.7.146 The properties within Glespin village are considered in further detail within a series of different grouped areas as part of the RVAS. However, in summary, the primary open views from the village are to the south across the Douglas Water valley to the farmland beyond, rather than northwards towards the site, where the steeply rising topography limits the potential for any views of the turbines. It is assessed that there would be no more than a **minor** level of effect on any of the properties in Glespin which may be able see the tops of a small number of blades only, with the majority of properties having no view of the turbines and thus experiencing no more than a **negligible** effect.

- 6.7.147 Consultation with SLC in relation to the previous Douglas West Wind Farm application, lead to the selection of Viewpoint 12 on the A70 east of Glespin to illustrate the potential effects from the approach to the village, as the nearest suitable location to the settlement where turbines can be viewed. However, it should be noted that the view from Viewpoint 12 is not typical of the view from any of the residential properties in Glespin and its primary purpose in this LVIA is therefore to represent users of the A70 as they pass through this section of the landscape.

Properties Located between 2 km and 5 km of the Proposed Turbines

- 6.7.148 Between 2 km and 5 km of the proposed turbines, the majority of the residential properties lie within, and surrounding, the villages of Coalburn and Douglas, which are discussed separately below. A number of further individual farmsteads and small clusters of properties are also scattered throughout the surrounding landscape.

- 6.7.149 To the south-east of the site, off the A70, there are a number of farmsteads located within the ZTV of the Proposed Development, as shown at Figure 6.7. Such properties include Weston and Midtown. The existing view from the front elevation of Weston looks directly towards the existing Hagshaw Hill Extension and comprises a pastoral landscape with belts of coniferous forest, such as that at Windrow Wood, and rough grassland and moorland covering the upper hill slopes. The farmstead at Midtown is located within a locally undulating landscape, which is also heavily wooded, which encloses views in the direction towards the site, although views of the Existing Development are likely to be available from the wider farmstead. The nature of views towards the site from the A70 in the vicinity of Weston is shown at Figure 6.43 in relation to Viewpoint 12.

- 6.7.150 Overall, the dwelling house at Weston will experience direct and open views towards the site and the Proposed Development will be seen in the context of the existing Hagshaw Hill Wind Farm Extension turbines. There will be a medium magnitude of change in the view, at a distance of just over 3 km, giving rise to a moderate effect that is significant. With regard to Midtown, the magnitude of change from the farm house will be medium to low due to its location in the landscape, but from the wider farmstead there will be a medium magnitude of change. There will be a worst case **moderate** effect that is significant.

- 6.7.151 To the south west of the site there are a small number of scattered dwellings and farmsteads at Glenbuck, however these are located outside the ZTV of the Proposed Development, as shown at Figure 6.7 and landform will screen views towards the Proposed Development. Further west along the A70, within 5 km of proposed turbines, ZTV coverage is limited and the Proposed Development will not be visible from Parish Holm, Darnhunch.

Coalburn, Braehead and Bellfield

- 6.7.152 The linked settlements of Coalburn, Braehead, and Bellfield are situated to the north north-east to north-east of the site with the majority of the properties falling between 4 km and 5 km of the proposed turbines. Whilst it is recognised that these settlements are often referred to collectively as just Coalburn, for the purposes of this discussion Coalburn is considered to be that part of the settlement north of the junction between Coalfield Road and Bellfield Road whilst Braehead is that part of the settlement to the east of this junction. Bellfield is located to the east of Braehead and

comprises scattered farmsteads and dwellings along Bellfield Road. The visual effects on the individual areas are discussed separately below.

- 6.7.153 Dealing first with Coalburn, the main road through the settlement, Coalburn Road, rises in elevation to the north. Many properties within Coalburn currently experience views which are internally focused within the residential context and are orientated away from the direction of the site. However, there are longer distance views available in the direction of the Proposed Development directly along Coalburn Road in a southerly direction, particularly from the road as it travels over higher ground in the vicinity of Manse View and Dunn Crescent. There are a small number of properties located on Dunn Crescent and Manse View that are orientated towards the site, as are a small number of dwellings on School Road. It is likely that the Proposed Development would be visible from first floor windows beyond the intervening urban context.
- 6.7.154 As one travels south along Coalburn Road, Manse View and Dunn Crescent, as well as Schoolhouse Avenue, the Proposed Development will be seen in the context of the existing Hagshaw Hill Extension turbines, beyond the immediate landscape, which is subject to planning consent for numerous wind farm developments, including Douglas West Wind Farm, Dalquhandy Wind Farm and Cumberhead Wind Farm. The consented turbines will form the primary feature of the view, with the Proposed Development located at distance beyond. In this context, as discussed further in cumulative scenario 1, the Proposed Development would reinforce the existing character of the view, and would not appear out of scale, resulting in a non-significant effect. It is this assessment of cumulative scenario 1 which is understood to be most relevant when considering the merits of the Proposed Development. However, for the purpose of the main LVIA assessment it is assumed that these turbines are not present and in this context there would be a medium to high magnitude of change in the view resulting in a **moderate** to **major** visual effect which is significant.
- 6.7.155 It is acknowledged that there is outline planning consent granted for a small housing development to the south of Middlemuir Road, Coalburn, named 'Gungreen'. The properties located within this development would lie immediately north of an area consented for wind energy development, and the Proposed Development would be located beyond. The proposed turbines would therefore be seen in the context of a large area of other turbines, and the ultimate magnitude of change in the view would be low. There would be no greater than a **moderate/minor** visual effect upon residents of any new development, should it come to fruition, and such effect is not significant.
- 6.7.156 The properties in Braehead, located to either side of Bellfield Road, are not orientated directly towards the site but it is acknowledged that there will be views towards the Proposed Development across the immediate formerly mined landscape. The existing Hagshaw Hill Extension turbines will be visible in the view beyond the immediate landscape, which is subject to planning consent for numerous wind farm developments, including Douglas West Wind Farm, Dalquhandy Wind Farm and Cumberhead Wind Farm. The consented turbines will form the primary feature of the view, with the Proposed Development located at distance beyond. In this context, the Proposed Development would reinforce the existing character of the view, and would not appear out of scale, as shown at Figure 6.32 in relation to Viewpoint 1. However, for the purpose of the main LVIA assessment it is assumed that these turbines are not present and in this context there would be a medium magnitude of change giving rise to a **moderate** effect which is significant.
- 6.7.157 The farmsteads and dwellings scattered along the eastern side of Bellfield Road are orientated in various directions, with direct views towards the site experienced from a small number of the properties, namely those located to the immediate east of Braehead. The visual experience with be similar that shown at Figure 6.32 in relation to Viewpoint 1. The Proposed Development would in due course be seen in the context of the consented development of Douglas West Wind Farm, which will occupy the near view. The Proposed Development would be seen at greater distance, in the context of the existing Hagshaw Hill Extension turbines. Overall, there would be a medium magnitude of change giving rise to a **moderate** effect which is significant.

#### Douglas

- 6.7.158 The village of Douglas is situated to the east of the Proposed Development. Most properties are situated between 3 km and 4.5 km but with several properties scattered around the outskirts of the

- village. The entirety of Douglas and many of the surrounding properties fall within the Douglas Valley SLA. A Conservation Area designation also covers the northern part of the village.
- 6.7.159 Douglas is situated on the south-eastern slope of the Douglas Valley, and many views from the village are orientated in a north-westerly direction towards the opposite valley side. Although a significant number of the residential properties within Douglas face inwards and towards other properties, the sloping hillside that Douglas is situated on allows an equally significant number of properties to experience views towards the opposing hillside of the Douglas Water Valley. The northern part of the village has narrower streets, denser clusters of buildings and mature vegetation throughout and within communal areas, such as, the church yard of St Brides Chapel. The northern historic core therefore has relatively limited views out at ground level except along the very northern edge. South of the A70 the housing and street pattern is more modern; roads are typically wider with larger gaps between housing. As these houses occupy rising land with a north easterly aspect they tend to have more opportunities to experience views out of the village towards the surrounding landscape but less of a view of the Conservation Area. Views from Douglas are represented by Viewpoints 3, 16 and Viewpoint 17.
- 6.7.160 Mature vegetation throughout and around Douglas is a characteristic of the village and provides some filtering of views in the direction of the site, with buildings also screening views towards the turbines from many properties. However, it is assessed that the proposed turbines are likely to be visible from several groups of properties in Douglas, namely those located on the western edge of the village, and the housing estate located on higher ground to the south east of the village. These areas are discussed further below.
- 6.7.161 The western edge of Douglas is relatively open, but it is largely located on lower ground on the periphery of the Douglas Water valley. Views towards the site from within the tightly clustered residential area are restricted by intermittent vegetation and by the presence of other buildings. That said, there will be views available from properties located on the periphery of the village, where views are also orientated towards the site, such as from the rear of Blackwood Court, Blue Tower, and properties off Ayr Road. The Proposed Development will be seen alongside the existing Hagshaw Hill Extension turbines, beyond the consented Douglas West Wind Farm turbines in the near view once they are constructed.
- 6.7.162 Similar views will also be gained from higher ground within the village, and from Ayr Road as one approaches the mini roundabout within the centre of the settlement. The existing Hagshaw Hill Extension can be seen from Braehead, Orchard Brae, and the car park to the front of Douglas Parish Church. To the south west of the village a housing estate is located on the north west facing hillside enabling views towards the site from the streets that are orientated generally east to west within the estate. Views from dwellings located on the higher ground within the village would experience views of the Proposed Development over the rooflines of the immediate built form. Again, the proposed turbines would be seen in the same part of the landscape as the Hagshaw Hill Extension turbines, beyond the consented Douglas West Wind Farm turbines in the near view.
- 6.7.163 To the south of the centre of Douglas there are a number of properties located along Ayr Road and the junction of Station Road. The view from the junction is shown at Figure 6.48 in relation to Viewpoint 17. The Proposed Development would be seen in the same part of the view as the existing Hagshaw Hill Extension turbines, marginally extending the horizontal array of turbines in the view. The proposed turbines would be seen beyond the consented Douglas West Wind Farm turbines which will form a prominent feature in eastern portion of the near view.
- 6.7.164 Without the Douglas West Wind Farm turbines considered in the baseline, the introduction of the proposed turbines would result in a worst-case high magnitude of change in the view from some residential properties within Douglas, which is considered to be significant. It is noted that the Proposed Development would slightly extend the visual presence of turbines within the view, but they would not appear out of scale with other wind energy developments within the local landscape.
- 6.7.165 Many of the properties in the village however would experience either no change in the view or limited views of the proposed turbines but not to a degree that would result in significant effect.

6.7.166 Along the A70 and situated relatively close to the village of Douglas is Lady Home Hospital. The main building is orientated in a north-east direction. An area of woodland is located to the immediate south west of the hospital, interrupting views in the direction of the site. It is likely that views towards the Proposed Development will be heavily filtered or screened in summer and filtered during months of leaf loss. There would be a worst case low magnitude of change from the hospital resulting in a **moderate/minor** effect which is not significant.

Settlements between 5 km and 10 km of the Site

6.7.167 Settlements between 5 km and 10 km of the proposed turbines include Lesmahagow, Brocketsbrae, Douglas Water, Rigside, and Muirkirk. Smaller clusters of properties between 5 km and 10 km of the proposed turbines include Auchlochan, Stockbriggs, Cairnhouses, and Uddington.

6.7.168 The ZTV at Figure 6.7 implies a degree of visibility across Lesmahagow, Brocketsbrae, Hawksland, Douglas Water and Rigside, in reality the turbines would not be perceptible from ground level or from the vast majority of properties within central parts of these settlements. There may be some occasional glimpsed views of the proposed turbines from upper floors of dwellings but at distances at 5 km to 10 km from the Proposed Development, and in the context of the M74 motorway and the wider panoramas likely to be visible, the turbines would result in no greater than a medium magnitude of change in the majority of views. Viewpoint 5 from the A70 illustrates one of the small number of locations where the proposed turbines would be more noticeable in this area, and in the scenario where consented schemes are not considered in the baseline there would be worse-case **moderate** and significant effects from this area. In cumulative scenario 1 however, as discussed further subsequently in this LVIA, the additional visual effects in the context of the consented turbines would not be significant from these towns and villages.

6.7.169 Muirkirk is located 9 km – 10 km to the west of the site within a lower lying valley. The ZTV at Figure 6.7 indicates varying degrees of visibility within the settlement. Figure 6.41 in relation to Viewpoint 10 shows the likely nature of the most open views from within the village. The worst case views of the Proposed Development are likely to occur on the western side of the village, as indicated by the ZTVs. The proposed turbines will be seen at distance, beyond the existing Galawhistle Wind Farm turbines that occupy the skyline to the east. The proposed turbines would appear similar in scale to the existing turbines that are visible to the east. The proposed turbines will also be seen in the context of the existing Hagshaw Hill Extension turbines. There would be a medium magnitude of change in the view resulting in a **moderate** effect that is not significant.

6.7.170 Elsewhere within the settlement, particularly the east, there is local variation in the landform that interrupts views towards the site. The ZTV also indicates that a smaller number of the proposed turbines will be visible. Where visible, the proposed turbines would be seen in the context of the existing turbines that occupy the skyline, at distance, to the east. There would be a worst-case medium magnitude of change in the view resulting in a **moderate** effect that is not significant.

6.7.171 Auchlochan is a retirement village located over 6.5 km to the north of the site. The village, and the associated golf course to the south, include a significant amount of vegetation and the overall feeling of the development provides a sense of enclosure with limited opportunities to view the wider landscape. Most views are focused inwards towards the maintained grounds. Views to the south are significantly screened by a roadside bund, layers of deciduous vegetation and fencing. It is considered that due to the internally focused layout and enclosed nature of the retirement village that there would be minimal changes in the view from this cluster of retirement homes, therefore the visual effects would be no greater than **minor** and not significant.

6.7.172 Stockbriggs is a small cluster of properties located to the south of Auchlochan. The hamlet is relatively enclosed by deciduous vegetation with occasional glimpsed long distance views gained through gaps in roadside vegetation. Any views of the proposed turbines from this area will be heavily filtered or screened by the intervening belts of coniferous and deciduous trees within the landscape. The proposed turbines will not be overly prominent features in the landscape, and they will be seen in the context of existing wind energy development in the landscape. Overall, there would be no greater than a low magnitude of change in the view. This would result in a **moderate/minor** effect which is not significant.

6.7.173 Uddington comprises several properties located at a relatively low part of the Douglas Water Valley strung out along an undulating section of the A70 Ayr Road. Located on the eastern side of the M74, the properties are situated within a sheltered landscape which includes large areas of woodland and tree belts in the intervening landscape to the Proposed Development. Most of the properties face towards the immediate roadside and therefore would have oblique angles of view in the direction of the proposed turbines. As Uddington is situated within the Douglas Water valley, views along the valley are available and there are views of distant hillsides including opportunities to view the existing Hagshaw Hill Extension and Nutberry Wind Farm turbines. It is assessed that the proposed turbines would be visible from some of these properties; however, the degree of visibility will be restricted by layers of dense vegetation and the undulating landform. Where visible, the turbine would be seen in the context of the other existing turbines and they would not appear out of scale in the landscape. The resulting magnitude of change is assessed as being medium. There would therefore be a **moderate** level of effect which is not considered to be significant due to the distance, layers of dense woodland and the existence of the existing turbines in the view.

#### **Villages, towns and other properties beyond 10 km**

6.7.174 Beyond 10 km of the Proposed Development turbines, opportunities for clear views of the turbines from built up areas would be increasingly limited.

6.7.175 Whilst the ZTVs suggest that the turbines would be visible from large parts of the landscape beyond 10 km to the north, including parts of Lanark, Carluke, Motherwell and beyond towards Glasgow, in reality at distances of over 10 km the turbines would not be clearly visible from ground level or from the vast majority of properties within these villages and towns. The turbines would be no more than incidental features in the distance of wider panoramic views that include existing wind farm development. At these distances, and in the context of the foreground urban fringe landscapes, the turbines would result in no greater than a low magnitude of change tending towards a very low magnitude of change if any on views from the landscape beyond 10 km. This would not form a significant effect.

6.7.176 It is therefore assessed that beyond 10 km of the turbines, there would be no greater than a moderate/slight effect on the views from any residential properties and that this level of effect would be experienced by a small percentage of the total population within the study area. The vast majority of properties beyond 10 km of the site would experience no change in the view. In no instance would there be a significant effect on the views from any properties over 10 km from the proposed turbines.

#### **Core Paths and Other Routes including Long Distance and Recreational Trails**

6.7.177 Throughout the 35 km study area as a whole, there are numerous Core Paths and other routes, several of which pass through or within close proximity to the Proposed Development.

6.7.178 When in very close proximity to a commercial turbine such as the type proposed at the site, turbines can have a locally dominating impact on the view. It is anticipated that the proposed turbines would have such an effect on core paths CL/5724/1, CL/3461/1, CL/3459/1, CL/3460/1 and CL3460/2 which traverse, and indeed were formed by, the Existing Development and the Hagshaw Hill Extension, access tracks within the site. There would be a high to very high magnitude of change in the view resulting in **major** and significant visual effect. However, it is recognised that such effects are experienced at present from stretches of these core paths.

6.7.179 Beyond the site boundary, the main core path in close proximity to the Proposed Development is route CL/5724/1 which passes through coniferous plantation on Henry's Hill. The ZTV illustrates that theoretically visibility is reduced in this part of the landscape. The proposed turbines are unlikely to be visible in any case from within the plantation.

6.7.180 Aspirational Core Path CL/3457/1 passes along Station Road to Arkney Hill along the access track to the Existing Development. The Proposed Development will form a prominent feature in the view to the west. The Proposed Development turbines would be seen above the near horizon immediately beyond the existing turbines in the near view. There would be a high magnitude of change in the view resulting in a **major** and significant effect.

- 6.7.181 To the north west of the site is an aspirational Core Path CL/5766/1 which passes above Galawhistle Burn. The route passes around the existing Galawhistle Wind Farm which forms the primary feature in the near view. The ZTV indicated that there would be reduced visibility of the Proposed Development due to the nature of the landform. The Proposed Development, where visible, would be seen beyond the existing Galawhistle Wind Farm, in the same part of the view. The existing Hagshaw Hill Extension turbines would also be visible beyond the Proposed Development. There would be a medium magnitude of change resulting in a **moderate** effect which is significant due to the proximity of the receptor to the site.
- 6.7.182 To the south of the site there is a cluster of Core Paths in and around Glespin, with further aspirational routes around Carmacoup. The Proposed Development would form a prominent feature in the view to the north where there are open aspect views available. Where routes pass through plantation, the proposed turbines are unlikely to be visible. There would be a worst case medium to high magnitude of change in the view resulting in a **moderate to major** visual effect that is significant.
- 6.7.183 There are further Core Paths located to the east of the site, beyond Douglas, many of which pass within or within close proximity to woodland and plantation. The Proposed Development will be clearly visible above the horizon where open aspect visibility is available along the routes. It should be noted that once the Douglas West Wind Farm, Cumberhead Wind Farm and Dalquhandy Wind Farm are constructed, the baseline landscape will be greatly altered, and the Proposed Development will be seen beyond the cluster of wind farms in the near landscape. In the absence of these consented developments, there will be a medium magnitude of change and a **moderate** and significant effect.
- 6.7.184 It is acknowledged that there will be open views towards the Proposed Development from the dismantled railway that runs along the Douglas Water Valley (CL/3453/1) between Douglas and Glespin. The proposed turbines would appear as prominent features in the relatively simple landscape to the north and north west alongside the existing Hagshaw Hill Extension turbines. There would be a medium tending to high magnitude of change in views in the direction of the proposed turbines and the resulting **moderate** tending to **major** effect which is significant.
- 6.7.185 Further footpaths in the wider landscape located between the site and the village of Coalburn will experience no more than a medium magnitude of change in the view, resulting in a **moderate** level of effect which is not considered significant due to the presence of vegetation and built form which would curtail or interrupt views towards the turbines.
- 6.7.186 Beyond 5 km to 6 km distance from the Proposed Development, the visual presence of the turbines will be reduced and the visual effects upon the rights of way network will also be reduced, particularly in the context of the number of other wind energy developments located within the wider landscape. The visual effects would not be significant.

### **National Cycle Network**

#### NCN74

- 6.7.187 The closest point of National Cycle Network route 74 to the Proposed Development is where the route originates approximately 6 km to the east of the site, at the junction of the B7078 with the A70. South of the junction the route follows the B7078 from where there would be no view of the proposed turbines (as discussed further below). There would therefore be **no effect** on this section of NCN74.
- 6.7.188 North of the junction with the A70, the route follows the B7078 in a northerly direction towards Lesmahagow, running parallel with the M74. The Proposed Development would be visible from parts of the route in the view to the west, with some sections screened by woodland. The Proposed Development would be seen in the distance with the site forming the furthest visible element of the view in the context of the existing Hagshaw Hill Extension turbines and others in the close vicinity including the Nutberry Wind Farm and Douglas West Wind Farm turbines. The existing Auchobert Wind Farm turbines are also visible in the view to the middle distance view to the north-west. There

are also a number of small scale turbines that line the road which are very prominent features in the immediate view.

- 6.7.189 Overall, there would be a worst-case medium magnitude of effect giving rise in a **moderate** effect which is not considered to be significant due to the context in which the turbines will be seen. Such moderate effects are limited to the section of the route between junction 11 of the M74 and just south of Auldtonheights.
- 6.7.190 Further north of Auldtonheights, the variation in landform between the route and the Proposed Development alongside vegetation in the landscape curtails the overall level of visibility of the proposed turbines and as such there would be limited views of the Proposed Development. Where views are available, they would be at distance, and interrupted by landform and vegetation. There would be no greater than a low magnitude of change resulting in a **moderate/slight** effect that is not significant.

## Roads

### M74

- 6.7.191 The ZTV indicates that visibility of the proposed turbines from the M74 would be limited to a short section part way between junctions 13 and 12, a longer section between junction 12 in the south and junction 10 in the north, and intermittent patchy visibility beyond to junction 8. When travelling northwards it is possible that there would be a glimpsed view of the turbine blades approximately 8 km south-east near Wedder Law and when traveling southwards it is possible that there would be glimpsed views of the turbine blades between Larkhall and Blackwood (at a distance of over 15 km) however, these would be very momentary glimpses and at some distance and in reality it is unlikely that people travelling at speed would notice any discernible change at this distance.
- 6.7.192 When travelling northwards along the section of the M74 immediately south of Junction 12, which is shown as lying within the ZTV, views in reality would be screened by roadside planting and adjacent plantation woodland. The junction itself is also largely surrounded by mature vegetation. A short section of approximately 300 m is open immediately north of the junction and as a consequence there would be clear views of the proposed turbines in conjunction with the existing Hagshaw Hill Extension, Douglas West Wind Farm and Nutberry Wind Farm turbines. The route then passes through wooded cuttings on the approach to Junction 11 and from this section of the route, and passing Junction 11, there would be no view of the Proposed Development. Beyond Junction 11 the Proposed Development would be behind the direction of travel and hence whilst in theory it would be possible to look backwards as a passenger, in reality the Proposed Development would generally not be seen. Travelling northwards therefore, views of the turbines would be limited to a very brief section of the motorway immediately north of Junction 12, which cars travelling at typical motorway speed would pass within a matter of seconds. It is therefore considered that there would be no greater than a very low magnitude of change in the view from the M74 travelling northwards and at most a **minor** effect which would not be significant.
- 6.7.193 When travelling southwards from Junction 10, although the ZTV suggests constant visibility up to Junction 12, in reality views would be far more restricted and intermittent. From Junction 10 to the Bog Road overbridge the motorway either lies in cutting or is well screened by roadside vegetation and along this section there would be limited, if any view of the turbines. For the following 3 km to Junction 11, sections of the road are in cutting and other sections have roadside vegetation which would obstruct views, but there would be a number of locations where there are clear views of the proposed turbines at a distance of around 6 km. Along this section of the route there are various built structures in the intervening landscape which would be more prominent (pylons, roadside small scale turbines, telecoms masts, the large bonded warehouse development at junction 11 and utilitarian farm buildings). Beyond Junction 11 the Proposed Development site would start to fall behind the direction of travel and there would be no view of the turbines. It is therefore considered that there would be no greater than a low magnitude of change in the view from the M74 travelling southwards and at most a **minor** effect which would not be significant.

## A70

- 6.7.194 The Proposed Development would be visible to varying degrees along much of the route within 15 km of the proposed turbines. The ZTV illustrates the extent of theoretical visibility along the route, with clear areas of no visibility between Glenbuck and Carmacoup, at Glespin, and further afield at Carbellow. A number of visualisation have been produced to illustrate the visual experience on the journey between Cumnock and Lanark. These in relation to Viewpoints 5, 7, 9, 12 and 14 respectively.
- 6.7.195 When travelling in a north-easterly direction between Cumnock and Douglas the Proposed Development will be visible intermittently from the road as vegetation and built form within the intervening landscape will interrupt views. Views will also be interrupted by the presence of former mining spoil heaps located in the local landscape.
- 6.7.196 Where the turbines are visible, they will be seen in the distance, above the horizon against the sky in the view from the route between Nether Wellwood and Muirkirk. They will form noticeable features in the landscape but will be seen in the context of other existing wind turbines. Beyond Muirkirk, ZTV coverage reduces and the turbines will not be visible between Glenbuck and Carmacoup. At Carmacoup and on towards Glespin the turbines will be seen at close proximity and would form prominent features in the view for a short stretch of the route. They would again be seen above the horizon alongside the existing Hagshaw Hill Extension turbines, albeit clearly taller features in the view.
- 6.7.197 On the approach to Glespin, ZTV coverage is absent but visibility increases again to the east of the village, by which time the Proposed Development is located behind the receptor when travelling towards Douglas.
- 6.7.198 In theory, when travelling in a south westerly direction, the proposed turbines would be intermittently visible from as far east as the Pentland Hills. In reality, the turbines would not be greatly perceptible features in the view west of Hyndford Bridge. When travelling from Hyndford Bridge to Douglas, the turbines would become increasingly noticeable but still intermittently visible as the road travels through an undulating landscape with roadside vegetation which would regularly interrupt views of the turbines. Between Rigside and Junction 12 of the M74, a series of woodlands, copses and tree belts would increasingly interrupt the view but where there are gaps in the vegetation the turbines would be clearly visible above the horizon alongside the existing Hagshaw Hill Extension turbines, the Nutberry Wind Farm and Galawhistle Wind Farm turbines, and the numerous small scale turbines located to the east of the M74.
- 6.7.199 From the route as it passes between Junction 12 of the M74 and Douglas, the turbines would be intermittently visible but regularly interrupted by roadside plantations and the presence of the stone wall that lines much of the route on the approach to Douglas. Along this section of the road, which overlooks the Douglas Valley, the turbines would be seen beyond the valley and on the horizon. The proposed turbines would appear larger in scale than existing turbines in the landscape, but once constructed, the Douglas West Wind Farm would form a more prominent feature in the near view.
- 6.7.200 Beyond Douglas towards Hazelside and Glespin, the Proposed Development would form a prominent feature in the view from the road. They would appear in the context of a relatively simple landscape alongside existing wind energy development in the wider landscape.
- 6.7.201 Overall, the worst case visual effects would occur in close proximity to the Proposed Development, within 3 km to 4 km of the proposed turbines. Where there are views towards the Proposed Development, there would be high magnitude of change in the view resulting in a **major** effect which is significant. With increasing distance from the site, the proposed turbines would increasingly be seen at distance and in the context of other existing wind farms, particularly as one travels from Rigside towards Douglas. There would be a medium magnitude of change increasing to medium to low with distance from Douglas towards Lanark giving rise to a moderate to **moderate/minor** effect which is not significant. Travelling north east between Muirkirk and Glenbuck there will be a medium magnitude of change. The visual effects would be **moderate** and not significant.

### B7078

- 6.7.202 The B7078 runs broadly parallel and to the west of M74 with the exception of a section of the route between Junctions 11 and 12 which runs on the eastern side of the motorway and serves Happendon Services.
- 6.7.203 Travelling in a northerly direction, despite the theoretical visibility indicated on the ZTV, roadside woodland belts would completely screen any view of the turbines as far as Junction 11 with the exception of a very short length of road in the vicinity of the A70 junction from which there would be filtered views back across the M74 and from where the turbines would be briefly a notable component of the view. There would be no perceptible views of the proposed turbines from Happendon Services due to intervening woodland. North of Junction 11 the turbines would be behind the direction of travel. It is therefore considered that there would be no greater than a very low magnitude of change in the view from the B7078 when travelling northwards and at most a **minor** effect which would not be significant.
- 6.7.204 Travelling in a southerly direction, whilst the ZTV indicates visibility on the B7078 as it passes through Lesmahagow, in reality roadside planting and intervening plantations would screen the view until well south of this town. South of Lesmahagow up to Junction 11 the proposed turbines would be intermittently prominent but filtered by trees and shrubs beside the road. They would be visible on the rolling moorland on which the existing Hagshaw Hill Extension and Nutberry Wind Farm turbines are already visible. They would also be seen in the context of other closer infrastructure such as pylons, farm buildings, and small to medium turbines in the intervening farmland. A view through the roadside vegetation is presented in relation to Viewpoint 4 and assessed in detail at Appendix 6.3. As the B7078 travels parallel to the M74, it is located at least 6 km from the turbines at its closest point. Where views of the turbines are available from the B7078, it is assessed that there will be a medium magnitude of change, resulting in a worst-case **moderate** level of effect. This effect is not considered to be significant due to the context in which the proposed turbines will be seen, at relative distance adjacent to existing turbines. It should be noted that the consented Douglas West Wind Farm and Dalquhandy Wind Farm will alter the nature of the intervening baseline landscape once constructed, as discussed in cumulative scenario 1.

### B7055

- 6.7.205 For the majority of the B7055 there will be no change in the view as much of the route falls outside of ZTV coverage. For approximately 2 km length of the road east of the junction with the A70 at Rigside, where elevated sections of the road provide long distance views to the south-west above the rooftops of properties at Rigside towards the proposed turbines, there will be a medium magnitude of change in the view, resulting in a **moderate** effect. This would not be significant due to the distance in which the turbines will be seen, and the context of the baseline view.

### **Centres of Recreational and Tourism Activity**

#### Douglas Valley and Douglas Castle (Castle Dangerous)

- 6.7.206 A view which is representative of the setting of Douglas Castle is illustrated in relation to Viewpoint 3. It will be possible to experience views of the proposed turbines from Douglas Castle and within parts of the valley surrounding it. Views from such parts of the policy grounds would comprise the proposed turbines seen on the horizon, against the sky, in the same part of the view as the existing Hagshaw Hill Extension. It is acknowledged that views of the proposed turbines marginally extend the horizontal array of turbines in the view, but the turbines will be located lower on the horizon and thus are more likely to be filtered in the view by vegetation, when present, within the Douglas Water Valley.
- 6.7.207 The visualisation in relation to Viewpoint 3 illustrates how views extend across managed grassland and the Douglas Water Valley, towards Long Plantation and above the Cameronian Regimental Memorial. The land gently rises from the Douglas Water to the west with areas of deciduous woodland seen growing in the shelter of the undulating landform, breaking up the appearance of the grassland slopes. Areas of coniferous plantation run down the slopes and line the tops of the valley side. Stable Lake is used for most of the year and presents an area of focus to the landscape

with circular walkways, coarse fishing and curling (during winter) attracting mainly local people to this part of the Douglas Valley. Mature trees scattered around the lake will partially filter the availability for clear views of some of the proposed turbines from this particular location.

- 6.7.208 It is noted that the existing Hagshaw Hill Extension turbines are visible from Douglas Castle and from the majority of the Douglas Valley, and it is acknowledged that from certain locations within the valley landscape, particularly to the east of Douglas, the proposed turbines would appear alongside or in close proximity to the Hagshaw Hill Extension turbines. However, it is noted that the proposed turbines would appear taller than the existing turbines in the view. The proposed turbines will not be seen directly beyond the memorial, rather they would appear to the west of the view. It should be noted that the consented Douglas West Wind Farm will alter the nature of views from the Douglas Water Valley once constructed and the Proposed Development would be seen beyond a large number of turbines in the immediate view. This matter is addressed separately in cumulative scenario 1.
- 6.7.209 Visitors to the ruins of Douglas Castle and the Castle Grounds are of high sensitivity to change and the addition of the proposed turbines will result in a medium to high magnitude of change in the view from parts of the policy grounds, resulting in a worst case **moderate to major** and significant effect from certain parts of the Castle Grounds where turbines are visible. This effect would only occur in the absence of the consented Douglas West Wind Farm in the near view. However, the introduction of the proposed turbines would not prevent an enjoyment of the recreational activities experienced in this landscape or an understanding of the underlying landscape which forms the setting for these activities, with the landscape of the Castle Grounds continuing to feel distinct and separate from the upper slopes of the hill ground which lies beyond.

#### Former Dalquhandy Opencast Mine

- 6.7.210 The adjacent part of the former Dalquhandy Opencast mine has also been opened up to public access but until restoration work has time to mature, at present, it is not particularly appealing as a recreational centre but is well used by a number of local walkers. It is acknowledged that there will be visual effects at this location as a result of the Proposed Development, however, it is recognised that 15 turbines have been permitted on this part of the former Dalquhandy Opencast already (Dalquhandy Wind Farm). The existing turbines at Hagshaw Hill Extension and Nutberry Wind Farm can currently be seen from this location due to their relatively elevated position to the south of Coalburn. Large areas of coniferous plantation forestry and remnants of the former opencast activities are also characteristic of the surrounding area while the area expresses a sense of exposure to the elements due to the lack of shelter provided by trees and shrubs.
- 6.7.211 From within the former opencast mine, it will be possible to view the Proposed Development, but it would be seen the immediate context of the existing Hagshaw Hill Extension turbines alongside Galawhistle Wind Farm. There will also be numerous turbines in the immediate landscape on the construction of Douglas West Wind Farm and Dalquhandy Wind Farm.
- 6.7.212 In its current form, the former mine is of low sensitivity to change due to the lack of recreational attraction. However, it is acknowledged that with time, this area could become more desirable and attract more people, thus increasing its popularity and ultimately its sensitivity to change. At the same time however, new woodland planting within the area will increasingly filter and soften views of the surrounding landscape. It is considered that there will be a medium magnitude of change in the views from this area and the resulting level of effect will be **moderate**. This effect is deemed to be significant. It should be noted that this judgement is made in the hypothetical assumed absence of the consented Dalquhandy Wind Farm and Douglas West Wind Farm turbines which have been approved in the local landscape and which, once constructed, will alter the baseline character of the area.

#### **Visual Effects during Decommissioning**

- 6.7.213 It is recognised that there would be some additional temporary effects during decommissioning of the turbines after 30 years over and above those assessed under the heading of 'Operational Effects' above. The additional effects resulting from decommissioning activities would be localised and relatively incidental when viewed in the context of the turbines being removed.

- 6.7.214 The effects on visual amenity would therefore decrease incrementally as decommissioning progresses and as more turbines and associated foundations and hardstanding is removed. Users of the Core Paths mentioned above which pass within close proximity, as well as through the site, will experience the greatest effects during decommissioning. Receptors using these routes would have largely unobstructed views of the decommissioning activities associated with the wind turbine elements of the Proposed Development.
- 6.7.215 The effects would be similar to those during the construction phase but in reverse.
- 6.7.216 Overall, it is considered that there would be a low magnitude of additional change (over that during the operation phase) for the reasons outlined above. This would result in no greater than a **minor** temporary effect on the visual amenity of people using the paths mentioned above. The decommissioning effects would be temporary in nature and are unlikely to all occur at the same time during this phase.
- 6.7.217 The decommissioning effects of the development on visual amenity are not deemed to be significant.

## 6.8 Mitigation

### Mitigation Measures and Design Evolution

- 6.8.1 As discussed in best practice guidance for EIA, mitigation measures may include:
- avoidance of effects;
  - reduction in magnitude of effects; and
  - compensation for effects (which may include enhancements to offset any adverse effects).
- 6.8.2 The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. This is sometimes referred to as ‘mitigation by design’. A detailed discussion of the design evolution and the iterative process underpinning it is provided in Chapter 2 of this EIA Report. Design evolution is summarised below in so far as landscape and visual matters have influenced the Proposed Development.
- 6.8.3 Firstly, it should be noted that the site has operated successfully as a wind farm for many years, with Hagshaw Hill being the location chosen to host Scotland’s very first commercial wind farm which was constructed in 1995. Wind energy is a firmly established feature of the local landscape in this area as a consequence of this and a number of other adjacent developments have since been constructed around the site of the Existing Development. In addition, recognition was given to the fact that large tracts of the local landscape have been worked in the recent past as opencast coal mines and that whilst some restoration has taken place, the former workings have, to some degree, altered the local landscape and its quality and condition. These factors alongside the cumulative wind farm picture that now forms the ‘Hagshaw Cluster’ (refer to Figure 6.3) and the need to replace the ageing machines within the Existing Development culminate in a great opportunity to develop a repowered wind farm at scale on this site with minimal impact on sensitive landscape features and making use of direct motorway access infrastructure which has been consented as part of the Douglas West Wind Farm to reduce the environmental effects of the Proposed Development.
- 6.8.4 Based on general good practice design principles (as set out in SNH guidelines), a review of the *South Lanarkshire Landscape Capacity Study for Wind Energy* technical report and an analysis of site-specific opportunities and constraints, the Proposed Development layout has evolved to take into consideration a number of landscape and visual constraints whilst maintaining an optimal development.
- 6.8.5 The design rationale adopted included a desire to avoid inconsistent turbine spacing, large gaps, outliers or excessive overlapping of turbines, to minimise visual confusion and ensure a balanced / compact array from key views.

- 6.8.6 With regard to turbine height, a review was undertaken to establish whether turbines of 200 m could be accommodated in at the site in a manner which would not be out of context with the overarching characteristics of the landscape (refer to Chapter 2).
- 6.8.7 Appropriate offsets from all properties and settlements, outwith the control of the Applicant or other involved land owner, have been maintained to ensure that no property would experience an overbearing visual impact such that it became an unattractive place to live.
- 6.8.8 The alignment of the Proposed Development turbines with the existing Hagshaw Hill Extension, and other operational and consented turbines including the Galawhistle Wind Farm, Hazelside Wind Farm, Douglas West Wind Farm, Cumberhead Wind Farm and Dalquhandy Wind Farm ensures that the Proposed Development would appear as part of a harmonious overall array in key views.
- 6.8.9 Taking all other engineering and environmental constraints into account, the final layout of the turbines on site was specifically designed to achieve a well-balanced array of turbines when viewed from the surrounding areas in conjunction with the existing and recently consented wind farm developments.
- 6.8.10 In considering the layout of other structures and ancillary features of the Proposed Development, the design has sought to utilise existing infrastructure as far as possible. The first section of the proposed primary access route through the site will therefore utilise an existing redundant haul road formerly used as part of the opencast workings. Subsequent sections will follow a redundant railway line for the most part, and will also utilise part of the existing access tracks associated with the Existing Development and the Hagshaw Hill Extension.
- 6.8.11 The turbines themselves would be painted an off white colour with a low reflectivity semi-matt finish (or similar as agreed with the Local Planning Authority (LPA)). Such a finish is widely regarded to be the least intrusive in the landscape when seen against the sky in a host of weather conditions typically experienced within the UK.
- 6.8.12 In order to offset some of the effects of the Proposed Development investment is proposed in recreational enhancements on the Proposed Development site and the Applicant's wider landholding beyond (as part of the consented Douglas West Wind Farm). These will be delivered through development of a Public Access Strategy which seeks to facilitate the local community's aspirations to create an Adventure Tourism destination at junction 11 of the M74 utilising local wind farm assets. This initiative is discussed in Chapters 3 and 13 of the submission, however the key features of these are summarised below.
- 6.8.13 The proposed Public Access Strategy aims to build upon the commitments that form part of the existing planning permission for the Douglas West Wind Farm and to support the local community's aspiration to develop an Adventure Tourism destination utilising parts of the Applicant's landholding. With a number of points of historic interest and the area's industrial heritage, there is a great opportunity to open up the area and to provide a good network of well waymarked and promoted paths and to develop a mountain biking network. Proposals include creating a Visitor Welcome Area with new parking areas and basic visitor facilities. Implementation of the proposed Strategy would deliver significant recreational benefits.
- 6.8.14 The Proposed Development will make a positive re-use of the site's existing infrastructure, and the Public Access Strategy will deliver significant recreational improvements which will benefit the local communities.
- 6.8.15 In the long term, when the Proposed Development is decommissioned, the turbines would be removed from site and the vegetation along with the proposed access tracks would be restored in accordance with a restoration plan to be approved by the local planning authority.

## 6.9 Residual Effects

- 6.9.1 Best practice for EIA in general terms requires that the significance of potential effects be assessed, mitigation proposals identified and the residual effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed.
- 6.9.2 In the case of LVIA for wind farms this presents two interrelated problems:

- Potential effects cannot be meaningfully assessed in the absence of an assumed layout; and
  - Landscape and visual mitigation principally focuses on refinement of the site layout ('mitigation by design').
- 6.9.3 The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. The approach taken in this LVIA has therefore been to assess the final layout which is the result of an iterative design process. Therefore, the residual landscape and visual effects are largely the same as those assessed in the main part of the LVIA. The enhancements to the wider site brought about through the implementation of the Public Access Strategy are notable but would not alter the significance of any of the landscape and visual effects reported in the assessment.

## 6.10 Cumulative Assessment

### *Introduction*

- 6.10.1 All other wind energy developments that are operational, under construction, consented or subject to a valid full planning application within 35 km of the Proposed Development were identified and reviewed as part of the cumulative assessment. In addition, the proposed Douglas West Wind Farm Extension which is currently at scoping stage has also been considered in an additional appraisal along with the revised Cumberhead Wind Farm proposal. The sites identified are shown in Figures 6.2 and 6.3.
- 6.10.2 It is acknowledged that this cumulative situation is constantly changing and therefore the 31 July 2018 was used as an effective 'cut off' date after which no further research was undertaken on the evolving status of wind energy development in the study area.
- 6.10.3 In general, schemes that are at scoping or at the pre-planning stage have not been considered due to the uncertainty that these schemes will come forward as a full application and the lack of adequate information about project details. This is in accordance with the approach advocated in GLVIA3. The exception to this is the proposed Douglas West Wind Farm Extension, which is also proposed by the same group of companies to which the Applicant belongs and is located adjacent to the north-east of the site, within the same moorland landscape. This scheme of 13 turbines, 200 m to blade tip has been considered in a separate analysis. Also included is consideration of the proposal to revise the Cumberhead Wind Farm to a scheme of 14 turbines, 149.9 m to blade tip.
- 6.10.4 In order that the cumulative assessment remained focussed on other schemes which have the greatest potential to give rise to significant cumulative effects it was necessary at the outset to decide which schemes realistically needed to be considered in detail and it was very quickly decided that this did not include all schemes within 35 km of the Proposed Development; to do so would simply detract attention from the key issues relating to the application. As there are several large wind farms (either operational, consented or in planning) in the immediate vicinity of the Proposed Development it was recognised that in this context wind farms over 20 km away were highly unlikely to give rise to significant cumulative effects which would not occur in any case with the existing distribution of immediately surrounding wind farms (i.e. in the absence of the Proposed Development). It was also deemed appropriate to scope out turbines under 50 m, or under 80 m and over 10 km from the site. This cumulative impact assessment therefore focuses primarily on those schemes within approximately 15 km of the Proposed Development although the Clyde grouping of wind farms is also taken into account as it was recognised that there was at least the potential for sequential effects to arise when travelling along the M74.
- 6.10.5 The wind farms identified within Table 6.7 are therefore the schemes on which the discussion of the cumulative landscape and visual impact effects are focussed.

**Table 6.7: Other Wind Farms Considered in Detail in the Cumulative LVIA**

Site	Blade tip height of turbines	Number of turbines
<b>Operational</b>		
Hagshaw Hill Extension	80 m	20
Nutberry	125 m	6
Galawhistle	121.2 m +110.2 m	4 + 18
Birkhill (Harbro)	99.5 m	1
Auchren Farm	66.6 m	1
Hazelside Farm	74 m	1 operational, 1 to be constructed
Dungavel	101.2 + 121.2 m	14
Auchrobert	132 m	12
Bankend Rig	76 m	11
Andershaw	125 m	14
JJ Farm Turbine	102 m	1
Nether Fauldhouse	78 m	1
Letham Farm	51 m	1
Low Whiteside Farm	54 m	1
Yonderton Farm	51 m	1
Lochhead	100 m	5
<b>Consented/ Under Construction</b>		
Douglas West	149.9m	13
Cumberhead	126.5m	11
Poniel	100 m	3
Dalquhandy	131m	15
Kype Muir	132m	26
Kype Muir Extension	132m + 152m	6 + 12
Penbreck	125 m	9 (note application to increase tip height of 6 of the consented turbines)
Middle Muir	136 m +152 m	8 + 7
Kennoxhead	145 m	19
Broken Cross (small turbines)	55.7 m	2
M74 Eco-Park	98.2 m	2
Glenmuckloch	133.5 m	8
Lethans	136 m to 176 m	22 - 5 at 176m, 1 at 152m, 9 at 149.9m and 7 at 136m

Site	Blade tip height of turbines	Number of turbines
South Kyle	149.5m	50
<b>In Planning</b>		
Glentagart	132 m	5
Priestgill	145 m	7
Penbreck	145 m	6 of the 9 previously consented turbines within SLC
Harryburn	149.9 m	17
Lowther Hills	149 m	35
Broken Cross	126.5 m	7
Enoch Hill	130m	19
<b>In Scoping</b>		
Douglas West Extension	200 m	13
Cumberhead Revised	149.9 m	14

- 6.10.6 For the avoidance of doubt and to reiterate the methodology adopted in the main LVIA, the baseline against which the effects of the addition of the Proposed Development to the landscape has been assessed includes all operational/built wind farms, but excludes the consented schemes in the vicinity of the site (Douglas West Wind Farm, Dalquhandy Wind Farm, Cumberhead Wind farm and Poniel turbines), and does not include any other consented or ‘in planning’ schemes. An assessment of the effects of developing the Proposed Development in combination with other operational wind farms has already therefore been presented in the main section of this LVIA.
- 6.10.7 The purpose of the cumulative impact assessment is therefore to consider the additional effects that might arise as a result of the Proposed Development if other consented and in planning (awaiting determination) schemes were also operational.
- 6.10.8 The baseline in the cumulative impact assessment is therefore extended to consider other schemes that are not yet present in the landscape but are consented or at various other stages in the planning process.
- 6.10.9 Three scenarios are considered which reflect the different degrees of certainty that these schemes will be constructed:
- scenario 1 - assumes that other consented (but as yet unbuilt) wind farms are operational;
  - scenario 2 - extends this further to assume that all schemes in planning are also operational; and
  - scenario 3 – also includes a consideration of the proposed Douglas West Wind Farm Extension, which is currently at scoping stage and the revised Cumberhead Wind Farm proposal.
- 6.10.10 By necessity this presents a rather simplistic analysis of future development scenarios. In reality, based on current trends, it is unlikely that all other schemes that are in planning will be approved and constructed but consideration of the latter two scenarios assumes all proposed schemes will go on to become operational and therefore these present ‘worst case’ scenarios.

### ***Cumulative ZTVs, Wireframes and Photomontages***

- 6.10.11 Cumulative ZTVs (CZTVs) have been produced to illustrate the theoretical visibility of various other wind farms and combinations of wind farms with the Proposed Development.
- 6.10.12 It should be reiterated that ZTVs imply a much greater geographical extent of influence on the landscape and views of it than would actually be the case. It therefore follows that the cumulative ZTVs also exaggerate the actual impacts of the turbines on landscape character and visual amenity as they do not take account of vegetation or buildings in the landscape, which may restrict the nature and extent of views.
- 6.10.13 Cumulative ZTVs have been produced for the following combinations of existing and consented wind farm sites and other sites in planning. The list below includes all those sites considered to have the potential to give rise to significant cumulative effects. The cumulative wireframes, Figures 6.32 to 6.48, include all sites within the study area for completeness.
- Cumulative ZTV with the Existing Development (Figure 6.24);
  - Cumulative ZTV with wind farms in the local landscape (Hagshaw Hill Extension, Nutberry, Galawhistle, Hazelside, Poniel, Cumberhead, Dalquhandy, Douglas West) (Figure 6.25);
  - Cumulative ZTV with Bankend Rig, Bankend Rig II, Dungavel, Stoney Hill Farm, Kype Muir and Extension, Auchrobert, and South Priorhill Farm (Figure 6.26);
  - Cumulative ZTV with Penbreck, Kennoxhead, Andershaw, and Middle Muir (Figure 6.27);
  - Cumulative ZTV with Low Whiteside Farm, Letham Farm, Auchren Farm, M74 Eco Park, Broken Cross Small, Yonderton Farm, JJ's Farm, Birkhill, Nether Fauldhouse (Figure 6.28);
  - Cumulative ZTV with Lethans and Glenmuckloch (Figure 6.29);
  - Cumulative ZTV with Lowther Hills, Leadhills, Harryburn, and Priestgill (Figure 6.30);
  - Cumulative with Glentaggert and Broken Cross (Figure 6.31);
- 6.10.14 A 'future baseline' image has been included amongst the visual material prepared for each of the assessment viewpoints which illustrates cumulative scenario 1 where other consented (but as yet unbuilt) wind farms are added into the baseline view. These include the recently consented Douglas West Wind Farm, Dalquhandy Wind Farm, Poniel turbines, and Cumberhead Wind Farm (as well as other consented wind farms in the surrounding landscape).
- 6.10.15 Cumulative wireframes have also been produced amongst the visual material prepared for each of the assessment viewpoints to show all operational, under construction, consented and in planning schemes. In addition, these images include the proposed Douglas West Wind Farm Extension and revised Cumberhead Wind Farm proposal. These are presented in Figures 6.32 – 6.48.

### ***Cumulative Effects on Landscape Features and Character***

#### **Cumulative Scenario 1**

- 6.10.16 It is noted that there are several consented but as yet unbuilt wind farms in the immediate vicinity of the Proposed Development (as well as within the wider study area). Particularly notable schemes include the consented Douglas West Wind Farm, Dalquhandy Wind Farm, Poniel turbines, and Cumberhead Wind Farm, and the various single turbines across the plateau farmland north east of the site. Whilst GLVIA3 requires the main LVIA to exclude these schemes from the baseline against which the Proposed Development is considered, the first cumulative scenario includes these schemes in the baseline. In the case of this application, the consented (but as yet unbuilt) wind farms in the surrounding landscape are likely to be an important material consideration in determining the acceptability of the Proposed Development (as is the Existing Development at the site which is also discussed separately).

- 6.10.17 As demonstrated in the main LVIA section of this report, the Proposed Development would not give rise to effects on any notable existing landscape features. It follows therefore that whatever cumulative effects other operational and consented wind farms have on existing landscape features, the Proposed Development would not contribute any further to this effect and therefore there would be **no cumulative effect** as a result of the Proposed Development on any landscape features.
- 6.10.18 In the first cumulative scenario (in which amongst others the Douglas West Wind Farm, Dalquhandy Wind Farm, Poniel, and Cumberhead Wind Farm turbines form part of the baseline) the character of the landscape within which the Proposed Development is located would be markedly different. With reference to the typologies referred to in the SLLCSWE, these schemes collectively create a ‘wind turbine landscape’ which would extend over the two character types within which the Proposed Development is located.
- 6.10.19 With the introduction of the Dalquhandy Wind Farm, LCT 5B – Plateau Farmland Opencast Mining would in this scenario already need to be redefined as ‘Plateau Farmland Opencast Mining and Windfarm’ in recognition that the consented Dalquhandy turbines would become an equally defining characteristic of the LCT as the former opencast workings. In this context, the introduction of the Proposed Development would not alter the defining characteristics of this LCT but would instead reinforce the existing characteristics of the baseline landscape.
- 6.10.20 In addition, the small area of LCT 7 in which the Douglas West Wind Farm is to be located would also need to be redefined, as an extension to the existing area of LCT 7B – Rolling Moorland Windfarm. Similarly, the area of LCT 7A in which the eastern section of the Cumberhead Wind Farm is located would need to be redefined as ‘Rolling Moorland Forestry and Windfarm’.
- 6.10.21 It is acknowledged that wherever more than one wind farm is present in the landscape there will be a greater overall or combined effect on landscape character than if just one wind farm was visible in the landscape. Likewise, it is acknowledged that the more wind turbines that are constructed in any given landscape, the greater will be the magnitude of overall (or combined) change to the landscape character that prevailed prior to the introduction of the first turbines.
- 6.10.22 However, it is also noted that in any given landscape where turbines are already present the additional effect on landscape character of introducing further turbines may not be as significant as the initial introduction of turbines. Furthermore, in general, the greater the number of turbines in the baseline landscape the less significant the addition of further turbines may be in landscape character terms as the landscape will be more heavily characterised by turbines in the baseline situation. This is certainly the case for this assessment, where due to the notable extent of consented wind energy development in the vicinity of the site a number of the effects identified in relation to both landscape character and visual amenity would reduce when compared to the main assessment presented above.
- 6.10.23 Taking this into account it is considered that in the first cumulative scenario, the effect of introducing the Proposed Development on the landscape character of the nearby character types would be as follows:
- LCT 7B – Rolling Moorland Windfarm
- 6.10.24 Eleven of the 14 Proposed Development turbines are located within this LCT which is defined to cover the area of rolling moorland in and around the Existing Development and Hagshaw Hill Extension turbines. As would be expected, a significant effect was identified on this area as result of the Proposed Development. If the consented wind farms in the vicinity of the site were also constructed, the existing influence of wind energy on this landscape would be greater, reducing the sensitivity of the baseline, such that the impact of the addition of the Proposed Development turbines would be reduced. If the totality of the effects were to be considered, then collectively the turbines would serve to result in this area forming part of a wider ‘wind farm’ landscape in this section of the plateau and rolling moorland but this would occur in any event in the absence of the Proposed Development.

### LCT 7 – Rolling Moorland

- 6.10.25 The main assessment considered the small tract of LCT 7 in which three of the Proposed Development turbines would be located, in addition to a number of further areas of the LCT in the surrounding landscape. In the case of the tract in which the turbines would be located, there would be no difference to the main assessment when the other consented schemes are considered. The influence of existing wind energy on this landscape would be greater, reducing the sensitivity of the baseline, but the Proposed Development turbines would still result in a significant effect.
- 6.10.26 One small area of LCT7 lies around 2 km to the north-east of the Proposed Development. The consented Douglas West Wind Farm would lie within this sub unit and would change the character of the small area such that it could already be considered to be characterised by wind energy and would already in reality form part of an extended area of LCT7B – Rolling Moorland Windfarm. In this context it is not considered that any view of the Proposed Development from this area would have the potential to change this existing character and so there would be no additional effect on this landscape sub unit, when the cumulative effects of the Douglas West Wind Farm are included in the assessment. Overall, there would be a significant effect on the character on this part of the landscape, but this would occur in any event in the absence of the Proposed Development.
- 6.10.27 The remaining two areas of LCT 7 to the north of the site would in cumulative scenario 1 have a greater number of visible turbines in views looking towards the site. In this context of a greater degree of built turbines in the view, the potential for the Proposed Development to bring about change to their landscape character is further reduced. As such, there would be a reduction in the worse-case minor level of effect that was identified in the main assessment. When the totality of effect on landscape character is considered on these areas, there would however be a significant effect, but this would occur in any event in the absence of the Proposed Development.
- 6.10.28 The landscape within 10 km to the south of the Proposed Development contains a further four sub units of the LCT 7 – Rolling Moorland. The closest of these areas to the site lies across the Douglas Valley to the south-east, beginning around 4 km away and covers the moorland landscape in and around Pagie Hill and Auchensaugh Hill. It should be noted that the under-construction Middle Muir Wind Farm which lies immediately south of this area of LCT 7 was considered as part of the baseline in the main assessment. However, on the opposite side of the Douglas Valley where the Proposed Development is located, the already operational turbines at Hagshaw Hill Extension, Galawhistle Wind Farm, Hazelside Farm and Nutberry Wind Farm would, in cumulative scenario 1, be supplemented by the consented Douglas West Wind Farm, Dalquhandy Wind Farm, Poniel turbines and Cumberhead Wind Farm.
- 6.10.29 In this context, the introduction of the Proposed Development adjacent to the large grouping of wind farms north of the Douglas Valley would result in a lower impact than previously assessed in the main LVIA. The additional effect of the introduction of the Proposed Development on these sections of LCT 7 would reduce to a **moderate/minor** and non-significant level. The overall combined effect would however be significant but this level of significance would occur in any event in the absence of the Proposed Development.
- 6.10.30 An additional area of LCT7 lies to the south-west of the site, covering a tranche of the landscape between the Douglas Water valley and Cairn Table, including the landscape around Little Cairn Table (517 m) and Urit Hill (451 m). The addition of the consented wind farms to the assessment would consolidate the wind farm landscape in and around Hagshaw Hill, and would also include the addition of the Penbreck Wind Farm and Kennoxhead Wind Farm to the landscape to the immediate east of this area. As a consequence, the assessed level of effect on landscape character in this tract of LCT 7 would reduce when compared with this main assessment, down to a **moderate/minor** and non-significant level. Again, the overall combined effect would however be significant, but this level of significance would occur in any event in the absence of the Proposed Development.
- 6.10.31 The two remaining areas of LCT7 to the south of the site cover tracts of the landscape around Pinkstone Rig and White Hill, and also the area extending between Auchendaff Hill and Cairn Kinney. In cumulative scenario 1, the consented wind farms to the south of the site, Kennoxhead Wind Farm and Penbreck Wind Farm would also be in the landscape alongside the additional turbines in the vicinity of the site as part of the wider Hagshaw cluster. These turbines would serve collectively to

reduce the potential impact of the Proposed Development on the character of the landscape when compared with that identified in the main assessment. Again, the effect would reduce to a **moderate/minor** and non-significant level. The overall combined effect would be significant, but this level of significance would occur in any event in the absence of the Proposed Development.

LCT 8 – Upland River Valley

6.10.32 LCT 8 occurs in two discrete locations within 10 km of the site (associated with Douglas Water to the south-east and River Nethan to the north). The Douglas Water area of LCT 8 lies closest to the site and in cumulative scenario 1, the consented Douglas West Wind Farm turbines in particular would be a notable existing visible feature in the landscape from this area. The Douglas West Wind Farm turbines would lie closer to LCT 8 than the Proposed Development and would exert a noticeable degree of influence on its character. In this context the potential for impacts to arise on the character of this tract of LCT 8 from the Proposed Development would be reduced. As such the effect identified in the main assessment would be reduced to **moderate**, up to 3 km from the site but would remain significant. Beyond this distance however up to 4.5 km from the site the previously identified moderate and significant effect, would reduce to a **moderate** but non-significant level. The overall combined effect would again be significant but this level of significance would occur in any event in the absence of the Proposed Development, as a result of the Douglas West Wind Farm. Furthermore, this overall combined effect would not however, become such a dominant or defining influence on the character of the part of LCT that its key features and characteristics could not still be appreciated, with the turbines all being clearly separated from the lower lying landform of the river valley.

6.10.33 At its closest, the River Nethan area of LCT 8 lies approximately 3 km to the north of the nearest proposed turbine but extends to over 8 km away. In cumulative scenario 1, the consented turbines at Dalquhandy Wind Farm, Douglas West Wind Farm, and Cumberhead Wind Farm would also be notable features alongside the existing Nutberry Wind Farm turbines which are already prominent on the skyline. In this context the potential effect of the turbines would be reduced when compared with the minor level identified in the main assessment. The overall cumulative effect on this area would be significant but this level of significance would occur in any event in the absence of the Proposed Development.

LCT 8A – Upland River Valley Incised

6.10.34 The area of LCT 8A within the vicinity of the site covers the section of the Douglas Water valley to the west of Glespin, and the Kennox Water valley which runs as a tributary to the Douglas Water. At its closest point the LCT lies within around 1 km to the south of the site, and extends to approximately 5 km away at the head of the Kennox Water valley. In cumulative scenario 1 the main addition to the turbines which would now be visible from this area would be the Kennoxhead Wind Farm which would be visible in the landscape to the south of the A70. This scheme would further establish views of wind energy as one of the characteristics of the Kennox Water valley, such that the potential for the Proposed Development to result in impacts to the character of this part of the landscape was reduced, albeit that the significant effect up to 2.5 km from the site identified in the main assessment would remain. Overall, the combined effect would be greater than that of the Proposed Development in isolation, but with much of the impact being brought about by the existing Galawhistle Wind Farm and the consented Kennoxhead Wind Farm.

LCT 5 – Plateau Farmland (also LCST 5B – Plateau Farmland Opencast Mining)

6.10.35 A large area of LCT 5 extends from approximately 3 km to the north-east of the Proposed Development to over 15 km away. In cumulative scenario 1, the extent to which turbines form an element of the character of this landscape would be notably increased through the addition of the Douglas West Wind Farm, Dalquhandy Wind Farm, Cumberhead Wind Farm and Poneil turbines. As a consequence of this, the potential for the Proposed Development to impact on the character of the landscape would be significantly reduced compared to that which is set out in the main assessment and would form no more than a **minor to moderate** effect, which would not be significant. Again, the overall combined effect on this area from the turbines in the Hagshaw cluster

and other surrounding developments would be significant, but this level of significance would occur in any event in the absence of the Proposed Development.

- 6.10.36 LCT 5B in which the Dalquhandy Wind Farm (on part of the former opencast site) would be already present was previously scoped out of the assessment in the main LVIA on the basis of its currently degraded status. Following construction of the Dalquhandy Wind Farm a significant effect on the character of this area would arise and it would become part of the wider 'wind turbine landscape' which is present in this area of the plateau and rolling moorland in conjunction with the adjacent schemes. As such, the combined effect also including the Proposed Development would be significant, but this level of significance would occur in any event in the absence of the Proposed Development.

LCT 6 – Plateau Moorland

- 6.10.37 LCT 6 occurs in two locations within 15 km of the site. In cumulative scenario 1, there would be several additional developments visible from the area which lies between around 3 km and 5 km to the north of the site, including Douglas West Wind Farm, Dalquhandy Wind Farm, Cumberhead Wind Farm and Poneil turbines. As a consequence, the potential for the Proposed Development to impact the character of this area would reduce to a **moderate**, but non-significant level. The overall combined impact would be significant, but this would be brought about in any case by the consented proposals.
- 6.10.38 The second area lies between Auchensaugh Hill and Crawfordjohn, 6 km to the south-east of the site at its closest point. The area includes the site of the Middle Muir Wind Farm which is currently under construction and was included in the baseline assessment, but in cumulative scenario 1, there would also be views of the other consented turbines in the Hagshaw cluster in the vicinity of the site. These would serve to slightly reduce the potential for the Proposed Development to bring about an impact to the character of the landscape, but at this distance the assessment as set out in the main LVIA would remain extant.

LCT 9 – Broad Valley Uplands and LCT 10 – Foothills

- 6.10.39 These two LCTs lie to the east of the site, both being around 7 km away at their closest point. In cumulative scenario 1, the consented development at Douglas West would be visible from the LCTs, located slightly closer and in the same direction as the Proposed Development. The Poneil turbines would also be visible, closer still to the LCTs, as would the Dalquhandy Wind Farm. In this context the potential impact of the Proposed Development would reduce when compared with the main assessment, but the overall judgements of impact would remain the same. The combined effect of all the turbines visible from the LCTs would be greater than that identified in the main assessment, but as it would lie beyond a number of other schemes, it would not be the Proposed Development which would bring about the majority of the effect.

LCT 10 – Upland River Valley (East Ayrshire)

- 6.10.40 East Ayrshire LCT 10 covers the landscape along the River Ayr valley westwards from the boundary with South Lanarkshire, near Glenbuck, which lies around 3 km from the site, and extends for around 15 km. In cumulative scenario 1, there may also be the potential for glimpsed views of the Penbreck Wind Farm and Kennoxhead Wind Farm, but generally the effect on landscape character would be the same as that identified in the main assessment, as the wind farm with the biggest current impact on the character of this area is the Galawhistle Wind Farm, which is already constructed and considered in the baseline of the main assessment.

LCT 18a – East Ayrshire Plateau Moorlands (East Ayrshire)

- 6.10.41 The landscape of LCT18a covers the area both to the north and south of the Ayr River Valley to the west of the site and extends across a large tract of the landscape to the south-west of the site including land beyond 20 km away from the Proposed Development. The consented Lethans Wind Farm would lie towards the southern extent of this character area and the Penbreck Wind Farm and Kennoxhead Wind Farm would also be visible from certain sections. As such, in the context of these consented schemes being constructed and wind energy being visible to a greater degree across this landscape, the impact of the addition of the Proposed Development would be reduced when

compared to the main assessment. The overall combined impact on LCT18a would be greater than that arising from the Proposed Development alone, but given that many of the other schemes which are visible from this area lie either within this area, or in closer proximity to it, then the effect is one which would come about in any event.

**Other Landscape Types beyond 10 km of the site**

- 6.10.42 Beyond 10 km of the site, the main assessment identified there would be no greater than a minor effect on any of the published landscape character areas as a result of the Proposed Development. This was in part because of the existing context of the site within an area which is an established location for wind energy including the visible Hagshaw Hill Extension and Nutberry Wind Farm. In cumulative scenario 1, this same landscape context in the immediate vicinity of the site would be further developed with wind energy such that there would be a clearly defined cluster of wind farms into which the Proposed Development would be added. As such, from LCTs beyond 10 km of the site the Proposed Development would be seen in this further developed context and there would be a reduced effect when compared with the main assessment. The contribution of the Proposed Development as part of the overall cluster of wind energy would in many angles of view be limited.

**Cumulative Scenario 2**

- 6.10.43 It is noted that there are six other undetermined schemes in planning located within 20 km of the Proposed Development, of which Broken Cross Wind Farm and Glentaggert Wind Farm lie within 10 km, and Priestgill Wind Farm, Harryburn Wind Farm, Leadhills Wind Farm and Lowther Hills Wind Farm lie between 10 km and 20 km.
- 6.10.44 The Glentaggert Wind Farm is located immediately adjacent to the operational Andershaw Wind Farm, and coupled with the under construction Middle Muir Wind Farm, would simply reinforce the existing density of wind energy development considered in cumulative scenario 1 above.
- 6.10.45 The Broken Cross Wind Farm is located across the M74 from the Hagshaw cluster in an area where a number of operational or consented single turbines are located. This wind farm would introduce commercial scale wind energy to an area of the landscape which does not currently include that form of development, but given the context of the existing and consented development in the Hagshaw cluster it is not considered that the Broken Cross scheme would result in any notable change to the assessment of effects on landscape character.
- 6.10.46 The proposed Priestgill Wind Farm is located approximately 14 km to the south-east of the Proposed Development. There is some intervisibility with this scheme and the concentration of wind farms in the vicinity of the site but there would not be any additional significant cumulative landscape character effects should Priestgill Wind Farm be constructed.
- 6.10.47 The remaining three schemes Harryburn Wind Farm, Leadhills Wind Farm and Lowther Hills Wind Farm would lie close to one another in the upland landscape beyond 10 km to the south of the site. If all three were to be consented this would collectively represent a substantive change to the character of the landscape in this area. This would serve to reduce the sensitivity of the landscape between these schemes and the Proposed Development site to wind energy development as views of turbines would already form an existing feature of the view. In particular this would relate to the Southern Uplands LCTs 13 (covering South Lanarkshire) and 19 (covering Dumfries and Galloway). In this context the effect of the Proposed Development on the character of this part of the landscape would be reduced when compared with the main assessment, however in neither case had a significant effect been identified. The overall combined level of effect would however be much greater, but for the area beyond 10 km towards these sites it would be these proposed schemes that would bring about the bigger part of the effect.
- 6.10.48 Given the relatively high number of operational and consented schemes considered in cumulative scenario 1, the change to the baseline brought about by these other schemes in planning would be minimal for all parts of the study area other than the area beyond 10 km to the south. Therefore, other than for this section of the landscape, where the bigger part of the effect would result from the other in planning turbines, it is not considered that the cumulative effects would be discernibly

greater in cumulative scenario 2 than in scenario 1 and no additional significant cumulative effects on landscape character are predicted.

### ***Cumulative Effects on the Douglas Valley SLA***

- 6.10.49 For the Landscape Character Types within the Douglas Valley SLA, considering Cumulative Scenario 1, and taking into account the above cumulative assessment in relation to landscape character, there would be some additional significant effects upon parts of the landscape character within the SLA when compared to the current baseline. However, this level of significance would reduce once the consented developments are added into the baseline against which the effects are judged and the extent over which significant effects would occur would reduce. Furthermore, a significant effect on the character of part of the SLA would occur in any event in the absence of the Proposed Development as a result of existing operational and consented wind turbine development surrounding the site (Hagshaw Hill Extension, Hazelside Farm turbines, Douglas West Wind Farm, Andershaw Wind Farm, Dalquhandy Wind Farm, Cumberhead Wind Farm and Poniel turbines). In other words, in cumulative scenario 1 it is recognised that there would be a significant effect on the SLA as a result of the totality of wind turbines visible in the surrounding landscape but that this level of effect would occur in any case in the absence of the Proposed Development and when compared to the main assessment the extent of significant effects is reduced.
- 6.10.50 In relation to Cumulative Scenario 2, it is noted that there are two other undetermined schemes in planning within 10 km of the site which might have some potential intervisibility with the Douglas Valley SLA, Glentaggart Wind Farm and Broken Cross Wind Farm. However, neither of these schemes are in such close proximity to the SLA that their introduction to the wider landscape would result in any additional significant cumulative effects upon the SLA, beyond that identified in scenario 1.
- 6.10.51 Overall, as noted in relation to the impact on LCT 8, it is concluded that the overall combined effect on the SLA would not become such a dominant or defining influence on the area that its key features and characteristics could not still be appreciated, with the turbines all being clearly separated from the lower lying landform of the river valley.

### ***Combined Cumulative Effects on Visual Amenity***

#### **Cumulative Scenario 1**

- 6.10.52 Through analysis of the cumulative ZTVs and the 'future baseline' images included with the visualisations a few basic observations can be made.
- 6.10.53 Firstly, in cumulative scenario 1, it is noted that the Proposed Development turbines would, from the vast majority of locations to the north, east and south, be visible in combination with and appear as an extension to one or more of the schemes within the cluster of wind energy in the immediate vicinity of the site, in particular the Douglas West Wind Farm, Cumberhead Wind Farm and Dalquhandy Wind Farm. This is in addition to the existing operational wind farms of Hagshaw Hill Extension, Nutberry Wind Farm, Galawhistle Wind Farm and the Hazelside Farm turbines which together with consented turbines would form a concentration of turbines extending from the rolling moorland down into the foothills bordering the farmland to the east.
- 6.10.54 Furthermore, from most locations to the north and east the Proposed Development turbines would be visible either in combination with or in succession with the consented Poniel turbines and, also to the north-east of the Proposed Development, either in combination with or in succession with the scattered, existing medium to large scale individual turbines in the farmland along the M74 corridor (including Auchren Farm, JJ Farm, Nether Fauldhouse, Letham Farm, Low Whiteside Farm and Yonderton Farm), and the consented M74 Eco Park, and Broken Cross Small Wind Development.
- 6.10.55 To the west, it is the exiting Galawhistle Wind Farm and Hagshaw Hill Extension, which has already been considered in the baseline of the main assessment, that will have the main cumulative impact alongside the Proposed Development, however in cumulative scenario 1, there would be additional successive views of the Pebreck Wind Farm and Kennoxhead Wind Farm turbines in the wider landscape.

- 6.10.56 In general however, where visible, the proposed turbines would reinforce the presence of turbines in views rather than introduce turbines into any views which are currently unaffected by turbines.
- 6.10.57 It is acknowledged that wherever more than one wind farm is present in the view there will be a greater overall or combined effect on visual amenity than if just one wind farm was visible in the landscape. Likewise, it is acknowledged that the more wind turbines that are visible in any given landscape, the greater will be the magnitude of overall (or combined) change to the visual amenity that prevailed prior to the introduction of the first turbines.
- 6.10.58 However, it is also noted that in any given view where turbines are already present the additional effect on visual amenity of introducing further turbines may not be as significant as the initial introduction of turbines. Furthermore, in general, the greater the number of turbines in the baseline view the less significant the addition of further turbines may be in visual amenity terms as the landscape will be more heavily characterised by turbines in the baseline situation.
- 6.10.59 Measured against this baseline, the additional effects arising as a result of introducing the Proposed Development would typically be less significant than reported earlier in the main assessment. Nonetheless, except where stated below the significance of visual effects reported in the main LVIA would still apply in cumulative scenario 1.
- 6.10.60 Firstly, in relation to the properties within 2 km of the Proposed Development turbines (as discussed in the RVAS in Appendix 6.4) it is noted that a number of these properties would have some view of one or more of the other wind farms in the vicinity of the site. Those schemes which are already constructed have been considered in the main assessment, but in cumulative scenario 1 the potential views of the consented Douglas West Wind Farm are also a relevant consideration for the properties to the east of the site at Station House and Blackwood Cottage. The addition of the proposed turbines to a baseline which also included the Douglas West Wind Farm would increase the overall magnitude of change at these properties, the combined effect on each would be significant. However, the overall effect would not be so overbearing as to render the properties an unattractive place to live.
- 6.10.61 In cumulative scenario 1, the baseline landscape in views from Coalburn and Braehead would already be notably changed by the addition of the Douglas West Wind Farm, Cumberhead Wind Farm and Dalquhandy Wind Farm. This is demonstrated by the cumulative wireframe and future baseline photomontage included with the visualisations for Viewpoint 1. As such, throughout Coalburn and Braehead the proposed turbines would be seen as an extension of the existing wind farm landscape which extends across the foothills up into the rolling moorland. In this regard, it is noted that the turbines within the Proposed Development are further away from Coalburn than those already consented and as such would not appear any greater in vertical extent within the view, notwithstanding their greater height. With these turbines in the baseline, the potential for the Proposed Development to impact on the visual amenity of the residents of Coalburn and Braehead would be reduced when compared with that set out in the main assessment. Indeed, the identified significant effect on visual receptors in this area would reduce to a non-significant level.
- 6.10.62 It is acknowledged that the overall combined impact in views from Coalburn and Braehead would be greater and that this combined effect would result in a major effect on the visual amenity of the area. However, the majority of this effect would arise in any case as a result of the Douglas West Wind Farm, Cumberhead Wind Farm and Dalquandy Wind Farm.
- 6.10.63 From Douglas, the consented Dalquhandy Wind Farm would not be visible but the Douglas West Wind Farm would be a notable feature in some views, with the Poniel turbines also being visible above Long Plantation slightly further down the valley from the proposed turbines at an oblique angle. The Poniel turbines would be visible as a discretely separate grouping, whilst the Proposed Development would lie in closer proximity to the Douglas West Wind Farm turbines, as part of the same overall cluster of wind energy development. The existing wind farm at Andershaw is not visible from Douglas and neither would the consented Middle Muir Wind Farm. The cumulative wireframes and future baseline photomontages for Viewpoint 16 illustrates the extent to which the consented Douglas West Wind Farm would be seen in the baseline of the view. In this context the impact of the Proposed Development on Douglas in cumulative scenario 1 would be reduced when compared

with the main assessment, and for visual receptors in the eastern area of Douglas, as represented by viewpoint 16, the impact would reduce to a non-significant level.

- 6.10.64 As with the views from Coalburn and Braehead, it is acknowledged however that the overall combined impact would be greater. Again, consideration has been given to the effect this collective impact would have to the amenity of residents and visitors to Douglas. With regard to the manner in which the developments all clearly relate to the wider upland landscape beyond the Douglas Valley it is not considered that the overall effect would be such that the presence of wind energy development was dominant or overbearing on the experience of being within the settlement.
- 6.10.65 From other residential areas in the wider landscape, as indicated above, the proposed turbines would generally be seen in conjunction with and as an extension to the large grouping of wind farms which would in this scenario include: Hagshaw Hill Extension, Nutberry Wind Farm, Douglas West Wind Farm, Dalquhandy Wind Farm, Galawhistle Wind Farm, Cumberhead Wind Farm, Kennoxhead Wind Farm, Broken Cross Wind Farm, and Poniel turbines. In this context, the additional effects resulting from the introduction of the Proposed Development would be further reduced when compared to the main assessment. In the case of the farmsteads and dwellings scattered along the eastern side of Bellfield Road the effect would reduce to a non-significant level, as would be the case for the worse-case significant effect identified for a small number of properties in and around Lesmahagow, Brocketsbrae, Hawksland, Douglas Water and Rigsid.
- 6.10.66 With regard to viewpoints in the wider landscape, the identified significant effect on visual receptors at viewpoints 4 (B7078 south of Lesmahagow), 5 (A70 Rigsid) and 13 (Auchensaugh Hill) would also reduce to a non-significant level once the revised baseline including the consented schemes is considered.
- 6.10.67 In terms of the Core Paths and other paths in the immediate vicinity of the site, in cumulative scenario 1 the Douglas West Wind Farm, Dalquhandy Wind Farm and Poniel turbines in particular would, from most locations, be prominent before the introduction of the Proposed Development, in addition to the existing Hagshaw Hill Extension turbines which have been considered in the main assessment. For those footpaths which cross through the Proposed Development site itself the significance of effect identified in the main section of the LVIA would still apply as the very close proximity of the turbines to these paths would have a locally dominating effect and a significant effect even in the presence of other consented turbines nearby. The paths which run across the adjacent landscape including part of the former Dalquhandy Opencast mine, would however experience equally notable effects as a result of the consented Douglas West Wind Farm and Dalquhandy Wind Farm. In this context, the effect of introducing the proposed turbines would be substantially less than that reported in the main section of the LVIA. It is further noted that the mitigation measures for public access set out in Chapter 3 will provide significant recreational enhancement to the local area through the Proposed Development.

#### **Cumulative Scenario 2**

- 6.10.68 In cumulative scenario 2, the pattern of wind farm development established and reported above in relation to cumulative scenario 1 would be not be greatly altered by the introduction of the in-planning schemes (if consented and constructed) as the key sites that would collectively form an established wind farm cluster in the vicinity of the Proposed Development site are all consented schemes considered under scenario 1.
- 6.10.69 The additional proposed schemes, are generally located at a distance from the Proposed Development, with limited intervisibility, particularly from lower lying areas, and as such would not alter the baseline or 'cumulative scenario 1' to such an extent that there would be any change to the cumulative effects already reported previously.

#### ***Sequential Cumulative Effects on Visual Amenity***

- 6.10.70 The three routes worth considering in the sequential cumulative assessment are the M74, the A70 the B7078, and NCN 74. As NCN 74 follows the route of the B7078, the effects for the cycle route and minor road are the same.

### Cumulative Scenario 1

- 6.10.71 In relation to the M74 (which becomes the A74 (M) further south), it is recognised that the existing turbines of Clyde Wind Farm and its extension are already a prominent feature of the route. There is then a section of the route between Junctions 12 and 13 where the under construction Middle Muir Wind Farm will be intermittently visible alongside the existing Andershaw Wind Farm. As previously assessed, between Junctions 12 and 10 the Proposed Development would be visible briefly when travelling northwards and more frequently when travelling southwards. In cumulative scenario 1, the Poniel turbines would lie in close proximity to the motorway alongside a number of existing individual medium to large scale turbines within the farmland along the motorway corridor, as well as the proposed turbines of Broken Cross Small Wind Development and M74 Eco-Park. These turbines are, and would be, located much closer to the road than the proposed turbines, which would be seen further back and appear as a part of the wider Hagshaw Cluster which include the consented Dalquhandy Wind Farm, Douglas West Wind Farm and Cumberhead Wind Farm at the foot of the rolling moorland on which Hagshaw Hill Extension, Hazelside Farm turbines, Galawhistle Wind Farm and Nutberry Wind Farm are already visible. Further north of Junction 10, there are intermittent views of the existing Auchrobert turbines and there may also be intermittent views of Kype Muir Wind Farm following its construction. Just south of Larkhall, the existing Lochhead turbines lie immediately adjacent to the motorway and are so are also visible from the route. In short, wind turbines would become a regular feature of the landscape from Junction 15 at Moffat up towards the southern edge of the Glasgow conurbation. However, in the context of the already consented and operational wind farms in this landscape, the additional effect of introducing the Proposed Development would not be significant.
- 6.10.72 In relation to the A70, in cumulative scenario 1, when travelling westwards from the M74 junction the consented Poniel and Douglas West Wind Farm turbines would become visible to the north of the Douglas Valley from more open sections of the route. This is in addition to the already operational Hagshaw Hill Extension, Hazelside Farm turbines, and Galawhistle Wind Farm. South of the Douglas Valley there would also be intermittent views of the consented Middle Muir Wind Farm, in the vicinity of the existing Andershaw Wind Farm, from the same section of the A70. Further west along the route, in the vicinity of Glespin, there may also be the potential for views of the Kennoxhead Wind Farm or Penbreck Wind Farm, located to the south. Within this established context of wind energy visible from sections of the A70 the addition of the Proposed Development would not appear out of character. The turbines of the Proposed Development would appear within the grouping as Douglas West Wind Farm /Hagshaw Hill Extension/Hazelside/Galawhistle Wind Farm which collectively for an established cluster development. The overall effect on this section of the A70 is likely to be significant but this effect would largely occur in any case in the absence of the proposed turbines.
- 6.10.73 East of the M74 on the A70, where visible, the Proposed Development would be seen in conjunction with the Poniel turbines and the medium to large scale turbines within the farmland along the M74 corridor including Broken Cross Small Wind Development and M74 Eco-Park, which would both lie in closer proximity to this section of the route. There are also a number of existing individual turbines located along the M74 including JJ Farm, Birkhill (Harbro) and Nether Fauldhouse. The Proposed Development would also be seen as an extension to the consented Douglas West Wind Farm, Dalquhandy Wind Farm and Cumberhead Wind Farm and the existing Hagshaw Hill Extension, Nutberry Wind Farm and Galawhistle Wind Farm. Whilst the introduction of the proposed turbines would increase the density of wind farm development in these views, the turbines would not result in a significant effect where one did not already exist as a result of existing and consented wind farms and turbines.
- 6.10.74 The sequential views from the B7078 and NCN 74 would be similar to those experienced along the M74 between Abington Services and Larkhall. In cumulative scenario 1, the consented Poniel turbines would lie in close proximity to the B7078 as would a number of individual medium to large scale turbines within the farmland along the motorway corridor (including Broken Cross Small Wind Development and M74 Eco-Park). These turbines would be located much closer to the route than the proposed turbines, which would be set further back and appear as a part of the established cluster of wind energy development which includes the consented Douglas West Wind Farm /

Dalquhandy Wind Farm /Cumberhead Wind Farm at the foot of the rolling moorland on which Hagshaw Hill Extension/Galawhistle Wind Farm /Nutberry Wind Farm are already visible. Further north of Junction 10, there are intermittent views of the existing turbines at Auchrobert Wind Farm and they may be intermittent views of the consented Kype Muir Wind Farm. Just south of Larkhall the Lochhead Wind Farm is located immediately adjacent to the M74 and are visible. In short, wind turbines would become a regular feature of the landscape from Abington Services up towards the southern edge of the Glasgow conurbation. However, in the context of the already consented and operational wind farms in this landscape, the additional effect of introducing the Proposed Development would not be significant.

### **Cumulative Scenario 2**

- 6.10.75 In cumulative scenario 2, along the M74 and the parallel B7078, Broken Cross Wind Farm would also be constructed and would reinforce the cluster of wind farms and single turbines that occur along the road corridors. The Proposed Development would be seen in the context of this concentration of turbines. The significance of introducing the proposed turbines into this baseline scenario would not be notably greater than that assessed above, and no further significant effects are predicted.
- 6.10.76 Along the A70, in this scenario, the proposed Glentaggart Wind Farm would be visible south of the Douglas Valley in association with the consented and under construction Middle Muir Wind Farm and the existing Andershaw Wind Farm. However, this would simply reinforce the presence of turbines beyond the valley. As noted above in relation to cumulative scenario 1, the overall effect on this section of the A70 is likely to be significant but this effect would occur in any case in the absence of the proposed turbines.

### **Cumulative Scenario 3**

- 6.10.77 In cumulative scenario 3, the proposed Douglas West Wind Farm Extension scheme is also considered as a development within the baseline landscape, in addition to the schemes in scenarios 1 and 2. In addition regard is also given to the proposed revised Cumberhead Wind Farm. In both cases to aid the consideration of this scenario, the schemes have been included within the cumulative wireframes provided as part of the visualisations for each assessment viewpoint. In the case of the revised Cumberhead Wind Farm, this is illustrated in addition to the consented Cumberhead Wind Farm, using a different colour, so that any difference between the two schemes can be easily understood.
- 6.10.78 Both the Douglas West Wind Farm Extension and the revised Cumberhead Wind Farm, would be located within the heart of the cluster of developments that are either already operational or consented in the vicinity of the site. The effect of this would be to further reinforce the scale and nature of the existing wind farm landscape in this part of South Lanarkshire that already exists to a degree and would be greatly expanded following the introduction of the consented schemes considered previously in scenario 1. As a consequence of this, the effects of the addition of the Proposed Development on landscape character and visual amenity would be further reduced than that set out in both the main assessment and in cumulative scenario 1, but the overall combined effect would increase. It will be for the subsequent LVIA's for these schemes, once they have reached application stage, to demonstrate in full the effects of these proposals against the existing and consented baseline. However, from analysis of the visual material prepared and with regard to the manner in which the schemes would relate to the existing pattern of development, it appears that they would simply serve to consolidate the existing wind farm landscape in the area that will already be in place as a consequence of the existing and consented schemes.

## **6.11 Summary**

- 6.11.1 The Proposed Development is located at the site of the Existing Development in South Lanarkshire approximately 3.2 km to the west of Douglas and 3.4 km to the southwest of Coalburn.
- 6.11.2 The site does not fall within a National Scenic Area, National Park or Regional Scenic Area, but does fall within the locally designated Douglas Valley Special Landscape Area which extends eastwards from the site across the valley associated with the Douglas Water.

- 6.11.3 The Proposed Development turbines would be located within two Landscape Character Types/Landscape Character Sub Types described in the South Lanarkshire Landscape Character Assessment (2010), namely: LCST 7B – Rolling Moorland Windfarm and LCT 7 – Rolling Moorland. The 11 most northerly turbines lie within LCT 7B; the remaining 3 turbines and the other main ancillary features of the Proposed Development lie within LCT 7.
- 6.11.4 The host landscape (spanning these two character types and other surrounding areas) has seen considerable change in the past 30 years and continues to evolve as a result of further wind farm development, opencast mine restoration and forestry activities. Part of the site is already recognised as a wind farm landscape in the published Character Assessment and it is considered that with the additional development now consented this area extends much further across the local landscape than this. This context is highly relevant when considering the baseline against which the development is to be assessed, even once the influence of the Existing Development is set aside from the assessment, as is required by best practice guidance.
- 6.11.5 The structures of the Proposed Development have been designed to avoid any existing notable landscape features and as such there would be no effect on any key existing elements of the landscape. The design of the Proposed Development is the result of a considered iterative process which has sought to minimise landscape and visual effects whilst achieving the technical and commercial requirements to ensure project viability. It was acknowledged that to date only turbines of up to 150 m had been consented in the vicinity of the site and it would be important to ensure that turbines of a greater height would relate well to these other developments and would not be incongruous with the overall pattern or scale of the landscape. Through consideration of turbines in a range between 150 m and 200 m it was established that notwithstanding the additional height of the 200 m turbines the manner in which they related to their immediate landscape context was broadly similar to that of the lower turbine heights. When the additional energy generation and community benefit of these turbines was considered as part of the wider design iteration exercise it was subsequently determined by the project team that they were the most appropriate way in which to proceed. Notably in relation to repowering, South Lanarkshire Council's 'Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance, September 2017' states that: *'Most of the areas in which the [tall] turbines could be most comfortably located either already host substantial wind energy development, or have similar developments consented. Turbines vary between 55m and 149.9m height. The addition of larger turbines could therefore often be, or at least perceived as, an extension to an operational or consented windfarm, or would be a repowering exercise, replacing existing turbines at the end of their commercial or consented life'*.
- 6.11.6 In the main part of the LVIA, the baseline against which the Proposed Development is considered assumes the Existing Development is no longer present in the landscape. It also includes other wind farms which are operational but not those which are consented or the subject of a planning application. This accords with the requirements of GLVIA3 and in this scenario the following observations have been made.
- 6.11.7 Notwithstanding the context of the wind farm landscape in which the site is located, as with almost any onshore wind farm development it is recognised that the Proposed Development would give rise to some additional localised significant effects on landscape character and visual amenity.
- 6.11.8 The Proposed Development would result in a direct significant effect on landscape character across the two relatively small and discrete areas of the character types within which the site is located: LCST 7B – Rolling Moorland Windfarm and LCT 7 – Rolling Moorland. The structural form of the proposed turbines is such that a high degree of visual permeability would be maintained and hence the sense of openness experienced across the area would not be greatly altered by the introduction of the turbines. The proposed turbines are relatively slender structures which would not obstruct the longer distance views when experienced from any direction. Whilst undeniably tall structures, the underlying landform is of a medium to large scale. Within this context the proposed turbines would not diminish the overall scale of the local landscape although in the immediate vicinity of the site the presence of the turbines would be clearly dominant.
- 6.11.9 In addition, it is recognised that the Proposed Development would have a significant indirect effect in some adjoining character types. Within LCT8A - Upland River Valley Incised, significant effects

would extend up to 4.5 km from the site. Within LCT 5 – Plateau Farmland it is assessed that significant effects on landscape character would extend east to the B7078 and northwards to the row of pylons which run south of Auldtonheights (i.e. within approximately 7 km of the proposed turbines). The significant effects would also extend over the small area of LCT 6 – Plateau Moorland north of the site and which is in essence an extension of LCT 5.

- 6.11.10 Finally, it is recognised that there would be a significant effect on landscape character within part of the Douglas Water Valley area of LCT 8 – Upland River Valley. Significant effects would extend up to 4.5 km from the site but would not include the Conservation Area of Douglas where visibility of the turbines is obscured by intervening buildings. This area lies within the Douglas Valley SLA but it is not considered the Proposed Development would have an overbearing impact on the sense of scale or prevent an appreciation of the underlying valley to the extent that it would prevent an understanding and enjoyment of either LCT 8 or the designated landscape.
- 6.11.11 In relation to visual effects, it is accepted that the Proposed Development would be visible from various nearby properties and settlements as well as the surrounding road network, public footpaths and recreational spaces. However, it has been assessed that the significant effects on visual amenity would be localised to within approximately 9 km of the Proposed Development.
- 6.11.12 Of the 17 representative viewpoints considered it has been assessed that there would be a significant visual effect at 10 locations:
- Viewpoint 1 – Braehead, Coalburn;
  - Viewpoint 2 – M74 Overbridge;
  - Viewpoint 3 – Monument at Douglas Castle;
  - Viewpoint 4 – B7078 south of Lesmahagow Douglas;
  - Viewpoint 5 - A70 Rigside;
  - Viewpoint 9 – A70 east of Monksfoot Bridge;
  - Viewpoint 12 – A70, East of Glespin;
  - Viewpoint 13 - Auchensaugh Hill;
  - Viewpoint 16 –Douglas, Crabtree Street; and
  - Viewpoint 17 – Junction of A70 and Station Road, Douglas.
- 6.11.13 There are 23 residential properties or groups of properties within 2 km of the proposed turbines, including the hamlet of Glespin. The RVAS, presented at Appendix 6.4 concludes that there would be significant effects experienced at six of the assessed properties or groups, namely: The Shielling, Inches Cottage, Carmacoup Farm Cottage, Carmacoup Farm, Properties at Hazelside Farm and Station House, but the residents would not experience such an overbearing effect on visual amenity that any property would become an unattractive place to live or visit.
- 6.11.14 A further property, Monksfoot, would experience a moderate, but non-significant effect, whilst the residents of the remaining properties would experience no greater than a **moderate/minor** effect on views from the property and curtilage.
- 6.11.15 It is recognised that certain other residential properties, concentrated mainly within Coalburn and Douglas, would also experience some significant effects as a result of the Proposed Development. It is noted however that a large proportion of the properties within these settlements would experience either no effect or no greater than a minor effect.
- 6.11.16 Outside the settlements discussed above there are a few isolated groups and individual residential properties which would have views of the Proposed Development. Between 2 km and 5 km of the proposed turbines and where properties have largely unrestricted views of the turbines, there would be some significant effects on the visual amenity.

- 6.11.17 When considering the Core Paths, Aspirational Core Paths and Wider Network paths within 2 km of the site, some of these routes will experience significant effects where views of the proposed turbines are available. It is noted however that the mitigation measures for public access (set out in Chapter 3 and 13) will provide significant recreational enhancement to the local area through the Proposed Development.
- 6.11.18 The only section of road within the study area that would experience a significant level of effect is the section of the A70 within 3 km to 4 km of the Proposed Development.
- 6.11.19 Some significant effects have been identified from an area of local recreational activity around Douglas Castle due to the proximity to the site and the ability to gain some views of parts of the proposed turbines. The introduction of the proposed turbines would not prevent an enjoyment of the recreational activities experienced in this landscape or an understanding of the underlying landscape which forms the setting for these activities.
- 6.11.20 The assessment of visible turbine lighting (refer to Appendix 6.5) has identified that the visible lighting would be screened by landform and topography from much of the surrounding 10km, in particular from large sections of the M74 and A70, with views generally seen in areas where night time lighting is a familiar element of the landscape. There would be the potential for significant effects on the character of the landscape in the immediate vicinity of the site during low-light levels. Additionally, significant effects have also been identified for visual receptors who are not in the vicinity of artificial light sources (such as car headlights, dashboard lights, or bright torches) in the vicinity of the A70 within up to around 3km of the site, in particular the section to the east of Glespin. Such an effect would however only be likely to be experienced by a relatively small number of transient receptors, as it is a sparsely populated area, with few receptors being likely to take in the view in the dark conditions away from artificial lighting.
- 6.11.21 Whilst the above scenario is the one which GLVIA3 requires an LVIA to address first, it is perhaps the first cumulative scenario which presents the most realistic context against which the acceptability of the Proposed Development should be considered. In this scenario, other consented (but as yet unbuilt) wind farms are taken into account in the baseline against which the effects of the scheme are assessed. In the case of this application, the consented (but as yet unbuilt) wind farms in the surrounding landscape are likely to be a key material consideration in determining the acceptability of the Proposed Development. It is therefore important to consider in particular, how the recently consented Douglas West Wind Farm, Dalquhandy Wind Farm, Cumberhead Wind Farm and Poniel turbines (as well as other consented wind farms in the surrounding landscape) affect the baseline. To this end a 'future baseline' image has been included amongst the visual material prepared for each of the assessment viewpoints which illustrates this scenario.
- 6.11.22 In this first cumulative scenario the character of the landscape context within which the Proposed Development is located would be markedly different. With reference to the typologies referred to in the SLLCSWE, these schemes collectively create a 'wind turbine landscape' which would extend over the two character types within which the Proposed Development is located and others in the locality of the site. In this context, the introduction of the Proposed Development would not alter the defining characteristics of the character types in the local area, but would instead reinforce the existing characteristics of the baseline landscape.
- 6.11.23 It is acknowledged that wherever more than one wind farm is present in the landscape there will be a greater overall or combined effect on landscape character than if just one wind farm was visible in the landscape. Likewise, it is acknowledged that the more wind turbines that are constructed in any given landscape, the greater will be the magnitude of overall (or combined) change to the landscape character that prevailed prior to the introduction of the first turbines. However, it is also noted that in any given landscape where turbines are already present the additional effect on landscape character of introducing further turbines may not be as significant as the initial introduction of turbines. Furthermore, in general, the greater the number of turbines in the baseline landscape the less significant the addition of further turbines may be in landscape character terms as the landscape will be more heavily characterised by turbines in the baseline situation.
- 6.11.24 Taking this into account it is considered that in the first cumulative scenario, the effect of introducing the Proposed Development on the landscape character of a local area in which the Douglas West

Wind Farm, Dalquhandy Wind Farm, Poniel turbines, and Cumberhead Wind Farm were already present would be less significant than previously assessed in the main LVIA. The combined effect on the local landscape would be significant but this level of significance would occur in any event in the absence of the Proposed Development.

- 6.11.25 Similar observations can be made about most of the surrounding LCTs, however in some cases the addition of the additional consented schemes to the baseline would serve to reduce the level of effect to such a degree that it would become non-significant. This would be the case for the section of LCT 8 between 3 and 4 km from the site; the area of LCT 5 up to 7 km to the north of the site; and areas of LCT 7 between 2.5 and 6 km to the south of the site. In each of the LCTs considered, where the overall combined effect would be greater and significant, this level of significance would generally occur in any event in the absence of the Proposed Development.
- 6.11.26 Within the lower lying land of the Douglas Valley SLA, the Proposed Development would be visible alongside the existing Hagshaw Hill Extension and Hazelside Farm turbines and the consented Douglas West Wind Farm and Poniel turbines. However, wind energy development beyond the lower sections of the valley would not become the single most dominant characteristic of the landscape. The topography, vegetation and watercourse would prevail as the defining characteristics of this area. The introduction of the Proposed Development would be significant, as would the combined effect, but there would already be a significant effect on the character of this area as a result of the already consented developments. The introduction of the Proposed Development would not increase the level of cumulative effect of wind farm development such that the combined effect crosses the threshold of the whole SLA becoming part of the wind farm landscape.
- 6.11.27 In terms of cumulative visual effects in cumulative scenario 1, it is noted that the Proposed Development turbines would, from the vast majority of locations, be visible in combination with and appear as an extension to the wider wind farm landscape which would include the consented Douglas West Wind Farm, Dalquhandy Wind Farm and Cumberhead Wind Farm, in addition to the existing operational wind farms of Hagshaw Hill Extension, Galawhistle Wind Farm, Hazelside Farm and Nutberry Wind Farm. Together these schemes would form a concentration of turbines extending from the rolling moorland down into the foothills bordering the farmland to the east. Furthermore, from most locations the proposed turbines would be visible either in combination with or in succession with the consented Poniel turbines and, also to the north of the Proposed Development, either in combination with or in succession with the scattered existing and consented medium to large scale individual turbines in the farmland along the M74 corridor (including Auchren Farm, Broken Cross Small, JJ Farm, M74 Eco-Park, Nether Fauldhouse, Letham Farm, Low Whiteside Farm and Yonderton Farm).
- 6.11.28 In general, where visible, the Proposed Development would reinforce the presence of turbines in views rather than introduce turbines into any views which are currently unaffected by turbines.
- 6.11.29 Measured against this baseline in cumulative scenario 1, whilst the overall combined impact might be greater, the additional effects arising as a result of introducing the Proposed Development would typically be less significant than reported earlier in the main assessment. Indeed, the significant effects identified in the main assessment for the areas around Coalburn and Braehead; the eastern part of Douglas; the farmsteads and dwellings scattered along the eastern side of Bellfield Road; and properties in and around Lesmahagow, Brocketsbrae, Hawksland, Douglas Water and Rigside; would reduce to a non-significant level.
- 6.11.30 With regard to viewpoints in the wider landscape, the identified significant effect on visual receptors at viewpoints 4 (B7078 south of Lesmahagow), 5 (A70 Rigside) and 13 (Auchensaugh Hill) would also reduce to a non-significant level once the revised baseline including the consented schemes is considered.
- 6.11.31 It is recognised that there would be a significant cumulative effect in relation to a small number of properties as a result of the Douglas West Wind Farm and the Proposed Development being constructed in conjunction, however the overall effect would not be overbearing such as to render the properties an unattractive place to live.

- 6.11.32 It is recognised that there would be some sequential cumulative effects along the M74, A70, B7078 and NCN 74. However, in the context of the already consented and operational wind farms in this landscape, the additional effect of introducing the Proposed Development would not be significant. The overall effect on these routes is likely to be significant but this effect would occur in any case in the absence of the proposed turbines.
- 6.11.33 It is noted that whilst the effects are considered to be long term, they are not ultimately permanent and upon decommissioning the Proposed Development the effects are almost entirely reversible. Therefore, there would be no permanent or irreversible effects on landscape character or visual amenity and these residual effects would not be significant.
- 6.11.34 Given the relatively high number of operational and consented schemes considered in cumulative scenario 1, the change to the baseline brought about by the other schemes in planning in scenario 2 would be minimal. Therefore, it is not considered that the cumulative effects would be discernibly greater in cumulative scenario 2 than in scenario 1 and no additional significant cumulative effects on are predicted.
- 6.11.35 It is noted that localised significant effects on landscape character and visual amenity are inevitable as a result of commercial wind energy development anywhere in the UK. Whilst the LVIA identified some significant landscape and visual effects it is considered that the landscape has the capacity to accommodate the effects identified, particularly when the consented but as yet unbuilt wind farms are taken into account in the baseline.
- 6.11.36 Scenario 3 considers the proposed Douglas West Wind Farm Extension and revised Cumberhead Wind Farm proposals alongside the other consented and proposed schemes considered in scenarios 1 and 2. Both the Douglas West Wind Farm Extension and the revised Cumberhead Wind Farm, would be located within the heart of the cluster of developments that are either already operational or consented in the vicinity of the site. The effect of this would be to further reinforce the scale and nature of the existing wind farm landscape in this part of South Lanarkshire that already exists to a degree and would be greatly expanded following the introduction of the consented schemes considered previously in scenario 1.
- 6.11.37 Wind turbines give rise to a wide spectrum of opinions, ranging from strongly adverse to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. In the case of the Proposed Development, which aims to repower Scotland's first wind farm, the turbines and associated ancillary development may be viewed by some as a symbol of continued progress by society towards a low carbon future.
- 6.11.38 However, in considering the effects of the Proposed Development, a precautionary approach has been adopted and it is therefore assumed that the effects identified will be adverse in nature even though it is recognised that for some people the impacts could be perceived to be beneficial.
- 6.11.39 The recent consents for other commercial scale wind farms, such as, Douglas West Wind Farm, Dalquhandy Wind Farm, Cumberhead Wind Farm and Poniel turbines, are particularly relevant as once built they will serve to create a wind farm landscape across the locality of the site. In the context of these consented turbines the Proposed Development will sit within an area already surrounded by large scale wind turbines and in this regard, would constitute an obvious continuation to the pattern and distribution of existing wind turbines in this area.
- 6.11.40 There are no definitive quantifiable thresholds of acceptability in landscape and visual impact assessment. The identified effects on landscape character and visual amenity therefore need to be balanced against the other benefits of the Proposed Development

**Table 6.8 – Summary Table**

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Existing Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
During Construction / Decommissioning						
<b>Landscape Character</b>						
Landscape Character Types and Sub-Types	Worst-case additional Minor	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case additional Minor	Adverse	N/A
<b>Visual Receptors</b>						
Visual receptors within the study area	Worst-case additional Minor	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case additional Minor	Adverse	N/A
During Operation						
<b>Landscape Character</b>						
Landscape Character Types in which the Turbines are located	Worst-case Major/moderate	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Major/moderate	Adverse	The Existing Development currently has a significant effect on the character of the landscape type in which it is located. This is recognised by the identification of this landscape as ‘Rolling Moorland Windfarm’. The Proposed Development would also have a significant effect on these areas, and therefore notwithstanding the increased turbine height there would be no

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Existing Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
						notable change to the character of this part of the landscape when compared with the experience over the last 23 years.
Other Landscape Character Types within 10km	Worst-case Major/moderate up to 3 km from the site. Moderate (significant) up to 6 km.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Major/moderate up to 3 km from the site	Adverse	When it was first constructed, as the only wind farm in the nearby landscape, the Existing Development had a significant effect on the character of the landscape extending beyond its boundaries to around 3-4 km. However, with the subsequent consents awarded to the Hagshaw Hill Extension and more recently to other wind farms, including the constructed Galawhistle Wind Farm, the contribution of the Existing Development to the overall effect on landscape character in the area has diminished. It is into this same context of a landscape containing numerous existing wind energy developments that the Proposed Development would be located. Therefore, whilst the effect on landscape character would be greater from the Proposed Development, this difference would be mitigated by the existing impact to the local landscape character which already occurs as a result of the other schemes.
Other Landscape Character Types	Worst-case moderate	Adverse	No additional mitigation – consideration of landscape and visual matters was	Worst-case moderate	Adverse	The Existing Development is visible from some locations between 10km and 15 km, and when it was first constructed would have given rise to

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Existing Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
between 10km and 15km	(non-significant).		inherent in the design process	(non-significant)		some minor impact on landscape character in these areas. However, as with the landscape within 10km, discussed above, since that time other wind farms have been constructed, that have a much greater degree of impact in these areas such that any effect of the Existing Development beyond 10 km is now largely de minimis. This same context serves to reduce the potential impact of the Proposed Development, which whilst greater would also not be significant at this distance.
<b>Visual Receptors</b>						
Assessment Viewpoints	Significant Effect on 10 of the 17 representative viewpoints, extending up to 9 km from the site.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant Effect on 10 of the 17 representative viewpoints, extending up to 9 km from the site.	Adverse	When it was first constructed, as the only wind farm in the nearby landscape, the Existing Development had a significant effect on visual amenity extending beyond its boundaries up to around 5 km. This impact has subsequently, been reduced by the additional wind farms consented in close proximity which are now the greater contributor to visual impacts in this area. The Proposed Development would be of a larger scale, but would largely be visible from the same locations in the landscape. Whilst it would result in greater visual effects these would be mitigated by the context of additional existing wind energy in the locality. This will be further reinforced by

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Existing Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
						additional consented developments, as discussed in cumulative scenario 1.
Residential properties and settlements	Significant effects at: six of the 23 properties or groups within 2 km; other residential properties up to 5 km, concentrated mainly within Coalburn and Douglas.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant effects at: six of the 23 properties or groups within 2 km; other residential properties up to 5 km, concentrated mainly within Coalburn and Douglas.	Adverse	The Existing Development is visible from many of the properties from which the Proposed Development would be seen. It is acknowledged that the Proposed Development would be more visible from a number of residential properties, however, as with the Existing Development, at no property would the effects be overbearing on visual amenity.
Roads and Railways	Significant effects limited to the section of the A70 within up to 3 km to 4 km.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant effects limited to the section of the A70 within up to 3 km to 4 km.	Adverse	The Existing Development is visible from many of the sections of the A70 from which the Proposed Development would be seen. Whilst the Proposed Development would result in greater visual effects these would be mitigated by the context of additional existing wind energy in the locality which have come forward since the Existing Development was constructed.
Footpaths and Cycleways	Significant effects limited to Core Paths,	Adverse	No additional mitigation – consideration of landscape and visual matters was	Significant effects limited to Core Paths,	Adverse	The Existing Development is visible from many of the sections of the footpaths and cycleways from which the Proposed Development would be

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Existing Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
	Aspirational Core Paths and Wider Network paths within 2 km.		inherent in the design process	Aspirational Core Paths and Wider Network paths within 2 km.		seen. The Proposed Development would be of a larger scale, but would largely result in effects that would affect the same areas and where additional existing wind energy has come forward since the Existing Development was constructed which has already extended the impacts to cover these areas.
Cumulative Effects						
<b>Scenario 1</b>						
Landscape Character	In this first cumulative scenario the character of the landscape context within which the Proposed Development is located would be markedly different. With reference to the typologies referred to in the SLLCSWE, these schemes collectively create a 'wind turbine landscape' which would extend over the two character types within which the Proposed Development is located and others in the locality of the site. In this context, the introduction of the Proposed Development would not alter the defining characteristics of the character types in the local area, but would instead reinforce the existing characteristics of the baseline landscape.					
Visual Receptors	Measured against this baseline in cumulative scenario 1, whilst the overall combined impact might be greater, the additional effects arising as a result of introducing the Proposed Development would typically be less significant than reported earlier in the main assessment. Indeed, the significant effects identified in the main assessment for the areas around Coalburn and Braehead; the eastern part of Douglas; the farmsteads and dwellings scattered along the eastern side of Bellfield Road; and properties in and around Lesmahagow, Brocketsbrae, Hawksland, Douglas Water and Rigside; would reduce to a non-significant level					
<b>Scenario 2</b>						
	Given the relatively high number of operational and consented schemes considered in cumulative scenario 1, the change to the baseline brought about by the other schemes in planning in scenario 2 would be minimal. Therefore, it is not considered that the cumulative effects would be discernibly greater in cumulative scenario 2 than in scenario 1 and no additional significant cumulative effects are predicted.					
<b>Scenario 3</b>						
	Scenario 3 considers the proposed Douglas West Wind Farm Extension and revised Cumberhead Wind Farm proposals alongside the other consented and proposed schemes considered in scenarios 1 and 2. Both the Douglas West Wind Farm Extension and the revised Cumberhead Wind Farm,					

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Existing Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
	would be located within the heart of the cluster of developments that are either already operational or consented in the vicinity of the site. The effect of this would be to further reinforce the scale and nature of the existing wind farm landscape in this part of South Lanarkshire that already exists to a degree and would be greatly expanded following the introduction of the consented schemes considered previously in scenario 1					

## 6.12 References

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