6 Landscape and Visual

Contents

This page is intentionally blank.

6 Landscape and Visual

6.1 Executive Summary

6.1.1 The Proposed Development is located in South Lanarkshire, within an area of coniferous plantation at Cumberhead Forest and on land immediately adjacent to it. The site is located approximately 4.3 km to the west of Coalburn, 5.6 km to the south-west of Lesmahagow, 7.2 km north-west of Douglas and 6 km north-east of Muirkirk and adjoins an established cluster of wind farms around Hagshaw Hill (the 'Hagshaw Cluster' – refer to Figure 1.2).

6.1.2 The Landscape and Visual Impact Assessment (LVIA) assesses the landscape and visual effects arising from the Proposed Development in two different baseline scenarios. Firstly, it assesses the effects of the project on the existing baseline which includes existing operational wind farms. Secondly, it assesses effects on a 'future baseline' scenario that includes the nearby consented schemes of Douglas West (now under construction), Cumberhead, Hagshaw Hill Repowering, Dalquhandy and Broken Cross. Given the number of consented and not yet constructed schemes in the vicinity of the Proposed Development, it was considered useful to bring forward the consideration of the consented and not yet constructed schemes into the main assessment as a material consideration as this is the most realistic context against which the acceptability of the Proposed Development should be assessed.

6.1.3 The main findings of the assessment are that there will be some inevitable significant landscape and visual effects upon the existing baseline environment as a result of the Proposed Development, with no significant effects predicted to any designated landscapes.

6.1.4 In terms of landscape character effects, the Proposed Development would result in direct and significant effects to the landscape character types, LCT 7 - Rolling Moorland and LCST 7A – Rolling Moorland with Forestry, within which the proposed turbines are located and indirect and significant effects to the immediately adjacent Plateau Farmland (LCT 5) landscape character type in both the existing and future baseline scenarios. However, all other landscape character types and sub types where significant effects are predicted in the existing baseline would no longer be significant in the future baseline scenario.

6.1.5 In relation to visual effects, it is accepted that the Proposed Development would be visible from various nearby properties, settlements as well as the surrounding road network and footpath network, as are the other wind farms in the Hagshaw Cluster. However, it has been assessed that when considered against the existing baseline significant effects on visual amenity would be localised to within approximately 8.3 km of the Proposed Development, with effects no longer considered significant in the future baseline scenario in all but one location, at Viewpoint 4 - Minor Road, Brackenridge.

6.1.6 The Residential Visual Amenity Study (Appendix 6.5) concludes that although there would be significant visual effects experienced at five of the 12 assessed properties or property groups within 2 km, the Proposed Development would not result in any overbearing visual effects and none of these properties would become an unattractive place to live.

6.1.7 The assessment of landscape and visual effects of aviation lighting has identified that the visible lighting would be screened by landform and topography from the wider surrounding area within 10 km, in particular from Douglas and large sections of A70, with those views which are available generally seen in areas where night time lighting is a familiar element of the landscape. The assessment has identified significant effects on the character of the landscape in the immediate vicinity of the site during low-light levels, up to approximately 4 km. Significant visual effects have been identified for the minor road network to the north-east of the site and a small number of associated residential receptors with a view towards the site, again up to approximately 4 km. Coalburn would experience a significant visual effect when assessed against the existing baseline, but this would reduce to non-significant once the future baseline landscape, including the lit turbines at Dalquhandy, is considered. Elsewhere, the proposed aviation lighting would not give rise to any significant landscape and visual effects. Embedded lighting mitigation has been designed into

the Proposed Development to reduce the intensity of the 2000 candela (cd) steady state lights in certain atmospheric conditions by reducing their intensity and attenuating the amount of vertical downwards lighting in order to reduce the visual impact experienced by receptors below the lights. Further detail on this embedded mitigation is provided in Appendix 6.4 Visual Assessment of Turbine Lighting.

6.1.8 As the LVIA has assessed the effects of the Proposed Development against a future baseline in the main chapter, the cumulative assessment has focussed solely on the additional effects arising from the Proposed Development if the other in planning schemes were approved and constructed. It found that the introduction the nearby Douglas West Extension and Hare Craig schemes would reinforce the presence of 200 m plus turbines in the immediate vicinity of the site, and in the case of Hare Craig, would reduce significant effects resulting from the Proposed Development on LCT 18a Plateau Moorlands sub-area to the south-west at Starpet Rig and Sclanor Hill. In relation to cumulative visual effects, it is clear that some receptors in the local area would experience a significant visual effect as a result of the other existing, consented and proposed wind farms. Therefore, the Proposed Development would consolidate an existing effect rather than introduce notable new significant cumulative visual effects.

6.1.9 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 largely reduced in the future baseline scenario.

6.1.10 The Proposed Development is the result of a considered iterative design process (Chapter 2) which has sought to minimise landscape and visual effects. In particular, it has reduced effects on receptors to the north-east of the Proposed Development by increasing the separation distances between the site and uninvolved receptor locations. It has been designed to relate well with the consented Hagshaw Hill Repowering scheme that also proposes to use 200 m high turbines, as well as the other wind farms in the Hagshaw Cluster.

6.1.11 It is acknowledged that the Proposed Development adjoins the north-west of 'Cumulative Area 7' identified in the South Lanarkshire Local Plan – Supplementary Planning Guidance 10 (the 'Hagshaw Cluster') and extends it towards Cumulative Area 6. However, the Proposed Development has been designed as a coherent extension to the Hagshaw Cluster that is contained with the Rolling Moorland Forestry landscape character type which already hosts substantial wind development (both existing and consented). Although it does extend the Hagshaw Cluster west towards Cumulative Area 6, care has been taken to ensure there remains a sufficient stand-off between the two clusters and that the remaining separation distance between the two clusters prevents the actual or perceptual coalescence of these two areas.

6.1.12 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 neighbouring consented wind farms are taken into account.

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

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 Proposed Development in so far as they affect the landscape resource;
- to evaluate the nature of the landscape effects (*i.e.* the magnitude, duration and reversibility of the effect);
- to identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for landscape effects;
- to evaluate the relative significance of residual landscape effects; and
- to determine which landscapes effects, if any, are significant.

6.2.5 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 Figure 6.25.

6.2.9 This chapter is structured as follows:

- Legislation, Policy and Guidance;
- Consultation;
- Assessment Methodology and Significance Criteria;
- Baseline Conditions;
- Assessment of Potential Effects;
- Mitigation;
- Residual Effects;
- Assessment of Cumulative Effects;
- Summary.

6.3 Legislation, Policy and Guidelines

Legislation

European Landscape Convention, Adopted 2000

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, NatureScot and South Lanarkshire Council (SLC) have 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 currently adopted 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);
- Planning Advice Note 60. Planning for Natural Heritage. (2000);
- Clydeplan, Glasgow and Clyde Valley Strategic Planning Development Authority, Strategic Development Plan (2017);
- 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: Planning Policy of this EIA Report 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*.'

6.3.14 Further information regarding the Spatial Framework is set out in the Planning Statement which accompanies this EIA Report.

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*. The site is also located outside of the Special Landscape Areas (SLAs) and Areas of Significant Cumulative Development, as illustrated on SPG *Map 2 – Development Management Considerations for Renewable Energy*, which are derived from the Landscape Capacity Study 2016.

6.3.17 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 NatureScot guidance (see Appendix 1 (of the SPG)).*
- *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.'

6.3.18 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'.

6.3.19 Section 6 of the SPG sets out development management considerations and considers the 'areas of significant cumulative development'. Of particular relevance to this project are Cumulative Area 6, the 'Kype Cluster' and Cumulative Area 7, the 'Hagshaw Cluster'.

6.3.20 The application site adjoins the north-west of 'Cumulative Area 7' (the 'Hagshaw Cluster') described as "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, Galawhistle and Nutberry wind farms together with the consented Cumberhead, Douglas West (now under construction) and Dalquhandy wind farms. These wind farms create an area of Wind Turbine Landscape".

6.3.21 The Proposed Development has been designed as a coherent extension of the Hagshaw Cluster array that is contained with the Rolling Moorland Forestry landscape character sub-type which already hosts substantial wind development (both existing and consented). Although it does extend the Hagshaw Cluster west towards Cumulative Area 6, care has been taken to ensure there remains a sufficient stand-off between the two clusters and that turbines do not extend onto the Rolling Moorland separating these two areas, as clearly illustrated in Figure 6.44 Viewpoint 8 – Black Hill. This viewpoint demonstrates that a 2 to 3km separation will remain between the two clusters that prevents the coalescence (either actual or perceptual) between Cumulative Areas 6 and 7.

6.3.22 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 Wind Energy (2016)

6.3.23 The *South Lanarkshire Landscape Capacity for Wind Energy* (2016) report was produced to inform the South Lanarkshire Renewable Energy SPG (2016).

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

6.3.25 As the title suggests, the *Landscape Capacity for Windfarms* report attempts to determine the capacity of 14 landscape character types across South Lanarkshire in relation to onshore wind farm development.

6.3.26 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.

6.3.27 The key settlements, transport routes and important viewpoints identified on Figure 4.1 of the Landscape Capacity for Wind Energy report are recognised as potential visual receptor locations and discussed as necessary in the LVIA.

Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance (June 2019)

6.3.28 Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance, June 2019 (TWT 2019) forms an Addendum to *Landscape Capacity for Windfarms* (2016) and provides further information on landscape capacity for turbines taller than 120 m to blade tip, which was the limit of the assessment in the 2016 document. The TWT 2019 provides brief guidelines with regards to the location of tall

turbines (defined as 120 m to 250 m to blade tip) but does not provide guidance on landscape sensitivity. Notably in relation to the Proposed Development the guidance identifies a 'medium' capacity and states with regard to locating turbines 150 m – 250 m to blade tip within the Rolling Moorlands landscape type in which the site is located 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 55 m and 149.9 m 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'.

6.3.29 From the review of the overarching characteristics 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)

6.3.30 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.

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

Emerging Policy

6.3.32 The South Lanarkshire Local Development Plan 2 has been examined and the Report of the Examination was published on the 17th August 2020. A modified Proposed Local Development 2 taking account of the recommendations will now be prepared. Further details in relation to the Proposed Local Development Plan 2 can be found in Chapter 5 Planning Policy Context of this EIA Report. The Plan is accompanied by an updated version of the Renewable Energy Supplementary Planning Guidance. The Spatial Framework within the draft Renewable Energy SPG continues to identify the Proposed Development site as being located within an *Area with Potential for Wind Energy Development.* The site is also located outside of the Special Landscape Areas (SLAs) and Areas of Significant Cumulative Development, as illustrated on *Map 2 – Development Management Considerations for Renewable Energy* of the draft SPG.

Landscape Designations

6.3.33 Landscape designations within 20 km of the Proposed Development site with specific geographical limits are illustrated at Figure 6.5.

National/International Landscape Designations

World Heritage Sites

6.3.34 Located approximately 12.5 km to the north-east of the site is the New Lanark World Heritage Site. New Lanark is a small 18th century cotton mill village, restored and designated as a World Heritage Site in 2001. The World Heritage Site lies largely outside of the Zone 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 55 km to the north-west of the site. At this distance, no effects will be experienced upon this designated landscape.

Local Landscape Designations

Special Landscape Areas

6.3.36 There are four Special Landscape Areas (SLAs) within the South Lanarkshire Council area which fall within 15 km of the Proposed Development site, as shown in Figures 6.4 and 6.5. The nearest SLA is the Douglas Valley SLA which lies approximately 3.5 km to the south-east of the site boundary.

6.3.37 It is also recognised that the Middle Clyde Valley SLA, Upper Clyde Valley and Tinto SLA and the Leadhills and Lowther Hills SLA also all lie between 5 km and 15 km of the Proposed Development site boundary.

Sensitive Landscape Areas

6.3.38 The closest Sensitive Landscape Area identified within the East Ayrshire administrative area is the Southern Uplands SLA, which lies adjacent to the south-western boundary of the Proposed Development site.

Regional Scenic Areas

6.3.39 The closest Regional Scenic Area to the Proposed Development site is the Thornhill Uplands, located approximately 18 km to the south, located within the Dumfries and Galloway Council area.

Conservation Areas

6.3.40 There are three conservation areas within 10 km of the Proposed Development site. These are: Douglas, located approximately 7 km to the south-east, Lesmahagow located approximately 6 km to the north-east and Strathaven, located approximately 10 km to the north-west.

6.3.41 It is also noted that there are further conservation areas located between 10 km and 20 km of the Proposed Development site. These are shown in Figure 6.5.

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 Chapter 10: Archaeology and Cultural Heritage 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 and Lee Castle, both of which are located approximately 12 km to the north-east, plus Lanfine, located approximately 17 km to the west of the Proposed Development.

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:

- *Guidelines for Landscape Character Assessment*, (2002) Countryside Agency and Scottish Natural Heritage (NatureScot);

- *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 ;
- *Assessing the Cumulative Impact of Onshore Wind Energy Developments* (March 2012) NatureScot;
- *Siting and Design of Wind farms in the Landscape, Version 3* (February 2017) NatureScot;
- *Visual Representation of Wind farms – Version 2.2* (February 2017), NatureScot; and
- *LI Advice Note 02/17 Visual representation of development proposals* (March 2017) Landscape Institute

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 A formal EIA Scoping Report was issued to SLC, ECU and other consultees including NatureScot and East Ayrshire Council (EAC) in June 2020 that set out, in terms of landscape and visual matters, the proposed assessment methodology, proposed study areas for the various elements of the assessment, and locations and number of assessment viewpoint locations.

6.4.3 In respect of the proposed viewpoints, a request was made by the ECU for the inclusion of 3no additional viewpoints, plus the micro-siting of 2no. other viewpoints. This request was agreed and the changes to the viewpoints list were subsequently confirmed with the other relevant landscape consultees through email correspondence during the preparation of the chapter. No other comments were made on the proposed methodology for the LVIA.

6.5 Assessment Methodology and Significance Criteria

Types of Impact Considered in the LVIA

6.5.1 In accordance with The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) (Landscape Institute and the Institute for Environmental Management and Assessment, 2013), 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 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 energy storage compound, and access roads.

6.5.3 Consideration has been given to seasonal variations when assessing the visibility of the Proposed Development.

6.5.4 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.

6.5.5 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.

6.5.6 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

6.5.7 For the purposes of clarification, it is helpful to set out the baseline scenarios against which the Proposed Development is assessed.

6.5.8 The Proposed Development site is located within a pocket of the landscape that includes numerous other commercial wind energy developments, either operational or consented as illustrated on Figure 6.25. In terms of how these other wind energy developments are considered in the assessment, the LVIA has been mindful of the approach advocated in *paragraph 7.13* of GLVIA3 which indicates that only existing schemes and those under construction should be considered as part of the baseline against which the scheme is assessed. As such, those schemes which have been consented but are not yet constructed are excluded from consideration in the first assessment which is set out (noting that Douglas West is now in the early stages of construction but, as no turbines have yet been erected, it has still been considered as part of the 'future baseline' – see below). However, there are a number of schemes in close proximity to the site which are consented but not yet constructed, including the Cumberhead Wind Farm which will be located immediately adjacent to the Proposed Development site. It has therefore been deemed appropriate to bring forward into the main LVIA assessment a consideration of the scenario whereby these schemes were constructed within the landscape. In other words, the main assessment considers two scenarios. Firstly, the usual assessment against the current baseline landscape and then secondly, an assessment against the 'future baseline' landscape, once all consented schemes have been constructed. This future baseline scenario is also shown as part of the visualisation material which is provided for each of the assessment viewpoints as this is considered to be the most 'realistic' scenario against which the Proposed Development should be assessed.

6.5.9 The cumulative impact assessment at the end of the Chapter then extends the assessment to consider other schemes that have not yet been granted consent but are the subject of a formal planning application.

Overview of schemes included within the 'Future Baseline'

6.5.10 The existing Hagshaw Hill wind farm is due to be replaced by the Hagshaw Hill Repowering wind farm in the near future. The future baseline will therefore consider the scenario whereby the Repowered Hagshaw Hill Wind Farm will be in the baseline rather than the existing Hagshaw Hill Wind Farm. The Repowered Hagshaw Hill proposal will replace the Existing Hagshaw Hill Wind Farm (excluding Hagshaw Hill Extension) with fewer, larger turbines (up to 200 m to tip), and thus would continue the long established presence of turbines on Hagshaw Hill, located in the landscape in the vicinity of the Proposed Development. The scale of the turbines of the Proposed Development is the same as that of the Repowered Hagshaw Hill Wind Farm and there is therefore an established presence of 200 m turbines in the landscape of the 'future baseline'. Refer to Chapter 1 Introduction and Figure 1.2 for further context in relation to the Hagshaw Cluster.

6.5.11 Both the Proposed Development and the Repowered Hagshaw Hill Wind Farm have been developed by the same applicant, along with the currently undetermined Douglas West Extension Wind Farm

application, as part of a considered strategy for the future of the cluster of turbines in the Douglas West/Hagshaw Hill/Cumberhead area. As the cumulative relationship has been designed to provide a logical cluster of turbines, the overall character of the future baseline landscape would continue to be reinforced.

6.5.12 The other consented but as yet unbuilt wind farms in the immediate vicinity of the Proposed Development that would be included as part of the 'future baseline' include the Cumberhead, Dalquhandy and Douglas West (now under construction) wind farms, as well as the Broken Cross Wind Farm in the landscape to the north-east. Each of these schemes include turbines of up to 149.9 m, with the Cumberhead scheme also including two turbines at 180 m.

6.5.13 Overall, 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. The consideration of the 'future baseline' scenario within the main assessment section of the LVIA, following immediately after the usual assessment of the current baseline, is therefore understood to be an appropriate mechanism with which to understand the landscape and visual matters that would arise.

Study Area

6.5.14 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 as for this project this was understood to be a proportionate distance within which any significant effects would have the potential to occur. 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*.

6.5.15 In terms of cumulative effects, the intention has 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 give 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

6.5.16 A baseline landscape assessment was carried out to determine the current features and character of the landscape within and surrounding the site.

6.5.17 The baseline landscape assessment involved firstly a review of desk material including:

- Ordnance Survey maps at 1:250,000; 1:50,000; 1:25,000 and 1:10,000 scales;
- Aerial photographs of the site and surrounding area;
- Topography;
- Current & 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.

6.5.18 Field visits have been conducted in a variety of weather conditions and at different times of the year, and as part of earlier work in relation to the consented Douglas West (now under construction) and the Repowered Hagshaw Hill wind farms, as well as the proposed Douglas West Extension. Collectively, surveys have been undertaken during June and July 2012, between March and May 2015, during June 2017, between July and November 2018, and during September 2020.

6.5.19 The baseline assessment identified the existing landscape features on the site, and in the immediate vicinity, and how these elements combine to give the area a sense of landscape character. Plans and construction details of the Proposed Development were used to determine the impacts of the scheme on landscape features and character.

6.5.20 The LVIA firstly assesses how the Proposed Development would impact directly on any existing landscape features or elements (e.g. removal of trees etc.).

6.5.21 The LVIA then considers impacts on landscape character with reference to landscape character areas/types identified in published landscape character documents, as set out in paragraph 6.6.4.

Visual Assessment Methodology

6.5.22 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).

Table 6.1 - Production of ZTVs

Production of Zone of Theoretical Visibility (ZTV) Maps
A Zone of Theoretical Visibility (ZTV) illustrates the extents from which a feature would theoretically be visible within a defined study area. 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. A further assumption of the ZTV is that climatic visibility is 100 % (*i.e.* 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. 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. 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. 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

Production of Zone of Theoretical Visibility (ZTV) Maps
the two sites overlap a third colour has been used to illustrate this potential cumulative visual influence. It should be noted that there are several limitations to the use of ZTVs. For a discussion of these limitations please refer to *Visual Representation of Wind farms – Version 2.2* (NatureScot). 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 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.

6.5.23 A selection of viewpoints were identified and agreed with statutory consultees to represent a range of views and viewer types as discussed in *Visual Representation of Wind farms – Version 2.2* (NatureScot) and in *Paragraphs 6.16-6.20* of GLVIA3.

6.5.24 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.

6.5.25 Visualisations were produced for each of the viewpoints; these are presented in Volume 4 of this EIA Report. An explanation of how they were produced and information to be read in conjunction with the visualisations is provided in Appendix 6.2.

6.5.26 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.

6.5.27 The viewpoints were used as the starting point for considering the effects on visual receptors within the entire study area. The visual assessment does not rely solely on the viewpoint assessments to determine the significance of effects on different visual receptor groups throughout the study area. It should be recognised that the viewpoints illustrated in the LVIA simply represent a series of snapshots from a small selection of the locations within the study area from where the Proposed Development 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.

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, 3rd 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 Proposed Development. These two judgements are described as very high, high, medium, low or very low.

6.5.30 The relative significance of landscape or visual effects is described as major, major/moderate, moderate, moderate/minor, minor or minor/no effect. No effect may also be recorded where the effect is so negligible. Professional judgement is then employed to determine whether the effect is significant or not. Those effects described as major, major/moderate and in some cases, moderate may be regarded as significant.

6.5.31 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

6.5.32 Best practice for EIA in general terms requires that the significance of potential effects be assessed, mitigation proposals identified (if a significant effect is identified) and the residual effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed.

6.5.33 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').

6.5.34 The approach taken in this study has therefore been to build landscape and visual mitigation into the final layout (refer to Chapter 2: Site Selection & Design). 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

6.5.35 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.

6.5.36 Due to the limitations of the Covid-19 pandemic, there have also been no visits to residential properties undertaken as part of the RVAS which is set out at Appendix 6.5. However, it is considered that sufficient information has been able to be collected from publicly accessible locations outside of the properties to enable a robust assessment to be provided.

6.5.37 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 rural South Lanarkshire, Scotland. The site is centred at approximately British National Grid (BNG) 275107, 634361. The closest settlements to the proposed turbines are the village of Coalburn, located approximately 4.3 km to the east, Douglas, located approximately 7.2 km to the south-east, Lesmahagow, located approximately 5.6 km to the north-east and Muirkirk located approximately 6 km to the south-west.

6.6.2 The nearest main highways are the A70, which passes approximately 4 km to the south of the nearest turbine, and the M74 which passes approximately 7 km to the north-east.

6.6.3 The location of the Proposed Development site is illustrated at Figure 6.1 and the layout of the site is shown on Figure 3.1.

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:

- National Landscape Character Assessment, (NatureScot, 2019)
- 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;
- East Ayrshire Landscape Wind Energy Capacity Study, 2018, Carol Anderson Landscape Associates;
- Dumfries and Galloway Wind Farm Landscape Capacity Study, 2020, Dumfries and Galloway Council;

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 NatureScot, 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 national level the whole of Scotland has now been characterised by the NatureScot National Landscape Character Assessment (2019) which has been published as an online resource. In introducing the updated information, NatureScot set out that where there are *'topic specific landscape capacity or sensitivity studies, they would take precedence for informing that development type'*. Given the detailed nature of the Landscape Capacity Studies for Wind Energy which cover the area around the site, it was therefore considered to focus the detailed element of the assessment on these studies and not the national level assessment.

6.6.7 At a local level the Proposed Development site falls within the area covered by the South Lanarkshire Landscape Character Assessment (Ironside Farrar, 2010). The landscape character assessment established 14 LCTs for the South Lanarkshire area.

6.6.8 The study also refers to Landscape Character Sub-types (LCSTs). The term sub-type is used within the study to define a further subdivision of the primary character type.

6.6.9 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.

6.6.10 The LCTs and LCSTs identified in the landscape character assessments above are illustrated to 15 km in Figure 6.8. Additionally, Figure 6.9 presents the LCTs and LCAs within 15 km overlaid on the Zone of Theoretical Visibility.

Character Types/Areas Covering the Proposed Development Site

6.6.11 The Proposed Development site, including the full extent of the access route falls across a number of landscape character types/sub types namely: LCT 7 Rolling Moorlands; LCST 7A Rolling Moorlands Forestry; LCST 7B Rolling Moorlands Windfarm; and LCT 5 Plateau Farmland. However, all of the proposed turbines are located within either LCST 7A – Rolling Moorland Forestry or LCT 7 Rolling Moorlands.

<u>Character Type – 7 Rolling Moorlands</u>

6.6.12 The character assessment records the key characteristics, features and qualities of the Rolling Moorlands 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 wind farm-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 Moorlands, it is noted that the key characteristic of the LCST 7A – Rolling Moorlands Forestry is described as follows:

- Landscape character influenced by areas of significant afforestation. This impacts upon colour, textures and the lengths of views possible.

Other Character Types and Areas considered in this LVIA

6.6.14 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.

6.6.15 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 and Black Law) 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.

6.6.16 Figure 6.9 which shows the character types within 15 km overlaid on the ZTV indicates potential visibility of the proposals within LCTs identified in three different local Landscape Capacity Studies covering parts of South Lanarkshire, East Ayrshire and Dumfries and Galloway. For reasons discussed below however, not all of the LCTs that fall within areas of theoretical visibility are considered in detail within the LVIA.

South Lanarkshire

6.6.17 The following LCTs or LCTSs lie within 15 km of the site.

6.6.18 LCT 1 – Urban Fringe Farmland is located on the north north-eastern edge of the 15 km study area to the south of Carluke and on the south-eastern edge of the urban periphery of Glasgow. Although the ZTV indicates that there will be theoretical visibility from this area it is considered that the close proximity to built development and Black Law wind farm to the north east means that the Proposed Development at approximately 15 km distance is unlikely to result in any further significant effect on landscape character and hence is not considered further in the assessment.

6.6.19 LCT 2 – Incised River Valleys is located on the northern and north-eastern edge of the 15 km study area in areas where there is very limited theoretical visibility of the proposals. There would therefore be no potential for any significant effects on the landscape character of this area to arise. This LCST is therefore not considered in further detail subsequently in the assessment.

6.6.20 LCST 2A – Incised River Valley, Broad Valley Floor is located on the north-eastern edge of the 15 km study area in an area with very limited theoretical visibility of the Proposed Development. Therefore, there would be no potential for any significant effects on the landscape character of this area to arise. This LCST is therefore not considered in further detail subsequently in the assessment.

6.6.21 *LCST 6A - Plateau Moorland Forestry*; *LCST 10A - Foothills Forestry*; and *LCT13A - Southern Uplands Forestry* as the titles suggest, 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 these LCSTs/LCTs. Therefore, despite the fact that the ZTV implies theoretical visibility within these tracts of landscape, in reality there would be no effect on character 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 types of LCT 6 - Plateau Moorland and LCT 8 - Upland River Valley (i.e. *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 *LCST 8A. Upland River Valley Incised* is located to the south of the site, in an area where there is very limited theoretical visibility of the proposals. There would therefore be no potential for any significant effects on the landscape character of this area to arise. This LCST is therefore not considered in further detail subsequently in the assessment.

6.6.25 *LCST 7B. Rolling Moorland Windfarm* covers the area around the existing Hagshaw Hill Wind Farm and its extension. Consent has recently been granted for the repowering of the Hagshaw Hill Wind Farm which will continue to see this LCST comprise of a landscape influenced by wind farms. As such, in this context it is not considered that there would be any potential for further significant effects on the landscape character of this area to arise from the Proposed Development. This LCST is also therefore not considered in further detail subsequently in the assessment.

East Ayrshire

6.6.26 There are 4 East Ayrshire LCTs which lie within 15 km of the site, as follows: LCT10 Upland River Valley; LCT18a Plateau Moorlands; LCT18b Plateau Moorlands with Forestry and Wind Farms; and LCT7c Lowlands. Only the very easternmost edge of LCT7c lies within 15 km and given that theoretical visibility from this area would be limited to only part of the development, it is considered there would be no potential for any significant effects to landscape character to arise. This LCT is therefore not considered in further detail subsequently in the assessment. Similarly, only the very edge of LCT18b lies within 15 km of the site and on the basis of the existing influence of wind energy on this landscape, as acknowledged in the title of the LCT, it is not considered there would be any potential for any significant effects to arise on this area as a result of the Proposed Development and it is not considered further in the detailed assessment.

Dumfries and Galloway

6.6.27 There is the tip of one Dumfries and Galloway LCT which lies within 15 km of the site, LCT19 Southern Uplands. From review of the ZTV it can be seen that there would be some theoretical visibility of the proposals on the highest points in the LCT however given the limited nature of the visibility across the LCT and considering it would lie at least 11 km from the site it is considered there would be no potential for any significant effects to landscape character to arise. This LCT is therefore not considered in further detail subsequently in the assessment.

6.6.28 Table 6.2 below provides a summary of the LCTs and LCSTs considered further within this LVIA as identified through the screening 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 Nearest Distance from Site	Deemed necessary for further consideration of potential character effects yes/no
South Lanarkshire Landscape Capacity Study for Wind Energy (2016)		
1. Urban Fringe Farmlands	14 km	No
2. Incised River Valleys	8 km	No
2A. Incised River Valley, Broad Valley Floor	12 km	No
4. Rolling Farmland	**5 km**	**Yes**
5. Plateau Farmland	**Access route passes through this LCT**	**Yes**
5B. Plateau Farmland Opencast Mining	**1 km**	**Yes**
5C. Plateau Farmland Windfarm	9 km	No
6. Plateau Moorland	**2.5 km**	**Yes**
6A. Plateau Moorland Forestry	12.5 km	No
6B Plateau Moorland Windfarm	12 km	No
6D. Plateau Moorland Opencast Mining	7.5 km	No
7. Rolling Moorland	**Turbines within the Proposed Development located within LCT**	**Yes**
7A. Rolling Moorland Forestry	**Turbines within the Proposed Development located within LCT**	**Yes**
7B. Rolling Moorland Windfarm	**Access route passes through this LCT**	**Yes**
8. Upland River Valley	**8 km**	**Yes**
8A. Upland River Valley Incised	5 km	No
8B. Upland River Valley Opencast Mining	8 km	No
9. Broad Valley Upland	**9 km**	**Yes**
10. Foothills	**10 km**	**Yes**
10A. Foothills Forestry	11.5 km	No
East Ayrshire Landscape Wind Capacity Study (2018)		
7c Lowlands	11.5 km	No
10. Upland River Valley	**2.4 km**	**Yes**
18a East Ayrshire Plateau Moorlands	**Borders south-western edge of site**	**Yes**

Landscape Character Type/Sub-type	Approximate Nearest Distance from Site	Deemed necessary for further consideration of potential character effects yes/no
18b Plateau Moorlands with Forestry and Wind Farms	13 km	No
Dumfries and Galloway Wind Farm Landscape Capacity Study (2012)		
19. Southern Uplands	11 km	No

Local Landscape Description and Character Appraisal

6.6.30 A plan showing the landscape features/elements within the site and its immediate context (5 km radius of the turbines) is provided in Figure 6.11. 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

6.6.31 Topography and relief within 35 km of the Proposed Development site is illustrated in Figure 6.10.

6.6.32 Topography within the 35 km study area broadly comprises rolling upland moorland hills, punctuated by incised valleys. The landform reduces in elevation and flattens out towards Glasgow near the northern edge of the study area and towards the lower lying coastal areas in the western part of the study area.

6.6.33 The Proposed Development site lies primarily on forestry land, that rises at its highest point to 522 m AOD at Nutberry Hill, with other notable high points at Standingstone Hill at 370 m AOD and Tod Law at 383 m AOD. These hills form part of a broad chain of hills between Douglas and Strathaven that extends in a south-westerly direction towards Sorn.

6.6.34 To the east of the site, a broad flat area of low lying land influenced by disused opencast mine workings extends between the site and the village of Coalburn. This area of low lying former worked land extends to the north east of Coalburn and to Broken Cross Muir.

6.6.35 To the east of the site and the former worked land, a low ridgeline extends in a north-east to south west direction with Poniel Hill being the high point at 259 m AOD before the ridge falls to the south east to 190 m AOD, into the wide valley of the Douglas Water.

Watercourses and Drainage

6.6.36 Douglas Water is the primary watercourse within the vicinity of the Proposed Development site, located approximately 7 km to the south-east of site boundary. 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 lochs occupy positions in the floodplain of the river.

6.6.37 A number of other smaller watercourses flow in a north-easterly direction from the higher ground of Nutberry Hill and cross through or close to the Proposed Development site. These include the River Nethan that passes along the southern edge of the main part of the site and Birkenhead Burn passes through the northern edge of the site, while Eaglin Burn flows through the central eastern part of the site, merging with the River Nethan just beyond the eastern edge of the site.

6.6.38 On the north-western slopes of Nutberry Hill, Long Burn flows in a north-westerly direction through the northern edge of the site area towards Logan Reservoir and Logan Water situated beyond the northern edge of the site.

6.6.39 To the south-east of the main development area, Pockmuir Burn crosses the proposed access track development area at a number of points, before flowing into the River Nethan. Further east Hagshaw Burn and Shiel Burn and its minor tributaries also cross the proposed access track

development area before continuing to the flow in a broadly north-east direction towards Poniel Water. Longhill Burn crosses the eastern end of the proposed access track development area near the point where the route enters Cumberhead Forest. The eastern end of the proposed access route also passes close to Poniel Water at West Toun on the western edge of Poniel Hill.

Vegetation

6.6.40 The site currently comprises a main development area of approximately 898 ha comprising mainly commercial coniferous plantation known as Cumberhead Forest, with a small area of farmland around Black Hill and Eaglinside. The site access track development area also crosses through predominantly coniferous plantation, between Mannoch Hill in the west and Longhill Burn in the east

6.6.41 Around 1 km further to the south-east of the access track development area and approximately 6 km from main development area 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 19th century to screen the mineral railway line to Douglas West in views from Douglas Castle and the village of Douglas.

6.6.42 To the north west of the Proposed Development site there are further large areas of coniferous plantation at Kype Muir, Dungavel Hill and Black Loch Moss.

6.6.43 It was noted during site surveys, that a significant amount of reforestation/restoration is currently taking place within the vicinity of the site on the former open cast mining sites to the east of the site. 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.

6.6.44 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

6.6.45 The landscape of the Proposed Development site does not feature any built infrastructure per se due to its use as commercial forestry plantation. However, there are a number of existing forestry tracks present within the plantation which are proposed to be utilised as part of the Proposed Development infrastructure.

6.6.46 In the immediate vicinity of the site there are numerous wind farms, either operational or consented, with recent consent granted for turbines up to 149.9 m and 180 m to blade tip in the landscape immediately to the south-east, at Cumberhead Wind Farm. Nutberry Wind Farm, with 6 turbines at 125 m to blade tip has been present in the landscape nearby to the east since 2013. The existing Hagshaw Hill Wind Farm and associated extension is located within the same cluster of development and consent was recently granted for the repowering of Hagshaw Hill Wind Farm with 200 m to tip turbines, the same scale as that of the Proposed Development. Galawhistle Wind Farm is also operational and adjoins the Hagshaw Hill Extension to the west, comprising 22 turbines at either 121.2 m or 110.2 m in height. Other consented (but as yet unbuilt) commercial wind farm proposals also exist at Dalquhandy and Douglas West (now under construction) to the east. The locations of all of the operational, consented and proposed wind farms within the local landscape are shown on Figure 6.26.

6.6.47 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.

6.6.48 One of the most prominent remaining features of the former minerals workings is a large area of hardstanding to the west of Long Plantation which was the site of the main coal processing activities during the opencast works and now houses a large biomass CHP plant. The footprints of some former buildings are evident, as is the former weighbridge.

6.6.49 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, the access road continues in a westerly direction across the 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.

6.6.50 In the wider context, the village of Coalburn lies to the east and comprises a range of property types, styles and ages. Douglas lies to the south-east of the site and comprises a core of older dwellings with more recent residential development to its east. Lesmahagow lies to the north-east and Muirkirk to the south-west. There are also numerous scattered individual properties and farms located to the north and east of the site.

Sensory and Perceptual Characteristics

6.6.51 The Proposed Development site is largely a commercial coniferous plantation. Thus currently, within the site, there is strong sense of enclosure. The irregular-shaped forest blocks open out allowing funnelled views along the forest tracks that are truncated by adjacent blocks.

6.6.52 From the forest edge there is much greater intervisibility with the adjacent undulating hills to the west and north and the lower-lying areas to the east. This surrounding lower-lying former worked land to the east, has a simpler smooth form with a stronger horizontal emphasis that results in the site and the immediate surroundings having a relatively large scale.

6.6.53 The restoration of the wider local landscape following mineral working has been relatively successful but nevertheless the condition of the wider 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.

6.6.54 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, alongside the commercial forestry within the site itself, lends the landscape a sense of intensive human influence over many decades. It has regularly been described as a “productive landscape”.

6.6.55 In the last 20 years, wind energy has become a defining element of the character of the local landscape. The nearby Hagshaw Hill Wind Farm has been operational for over 25 years, and its associated extension has been operational for over 10 years. These wind farms, and 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. The consented Cumberhead Wind Farm located adjacent to the south-east boundary of the Proposed Development site will further contribute to this character once constructed (as discussed further below).

Forces for Future Change in the Landscape

6.6.56 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.

6.6.57 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).

6.6.58 Many commercial wind farm developments have been consented within the area around the Proposed Development site, including in particular the adjacent scheme at Cumberhead, as well as the schemes at Dalquhandy, Douglas West (now under construction) and the Hagshaw Hill Repowering, which would include turbines of the same scale as those within the Proposed Development.

6.6.59 The nearby consented schemes are taken into account in the future baseline image which is included as part of the visualisations prepared for the scheme. They are also included as part of the second scenario against which the Proposed Development is assessed in the main assessment, 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.

6.6.60 It is also widely recognised that climate change will have an impact on the future character of the British landscape.

Visual Receptors

6.6.61 Due to the height of the proposed turbines and the undulating landform in the surrounding study area, there is the potential for the Proposed Development to be visible at considerable distances in several directions, most notably to the north, east and south of the 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.

6.6.62 Interpretation of the ZTVs (Figures 6.2, 6.3 and 6.15 – 6.18) assisted to identify potentially sensitive visual receptors of the Proposed Development. Principal visual receptors within the surrounding landscape are illustrated at Figure 6.12 and are identified below.

Residential Receptors and Settlements

6.6.63 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.

6.6.64 There are 17 properties within 2 km of the proposed turbine locations. Of these 17 properties, four have a financial involvement in the project, one of which is abandoned and no longer in use (Blackhill Cottage). Furthermore, one of the remaining uninvolved properties is also abandoned (South Cumberhead). All of the relevant properties are identified and discussed in detail within the Residential Visual Amenity Study (RVAS) presented at **Appendix 6.5**.

6.6.65 The village of Coalburn and a number of other individual residential properties or small groups lie between 2 km and 5 km of the Proposed Development.

6.6.66 There are five further notable settlements, namely Douglas, Lesmahagow, Kirkmuirhall, Muirkirk and Strathaven that lie between 5 km and 10 km of the Proposed Development site. Smaller settlements within this area identified in the South Lanarkshire Local Plan also include New Trows, Brocketsbrae, Boghead, Sandford and Glespin.

6.6.67 Further afield and within the 35 km study area are the larger towns of Lanark, Carluke, Larkhall, Biggar, Sanquhar, Cumnock, Kilmarnock and Stewarton. 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

6.6.68 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 is one long distance walking route located 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 low lying river corridor, ZTV coverage along the route is patchy and intermittent. However, there is a section of the route

that passes between Glenbuck and Nether Wellwood which does pass through ZTV coverage, at a distance of 4.5 km to 10 km from the closest proposed turbine.

6.6.69 There is also is a National Cycle Network (NCN) route located within 10 km of the site, as 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-westerly direction 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 7.5 km to the east of the site at the B7078, Happonden. ZTV coverage is consistent over this section of the route and is patchy and intermittent elsewhere along this route.

6.6.70 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 12 km to the north-east of the nearest turbine and outside of the ZTV);
- Southern Upland Way (approximately 19 km to the south of the nearest turbine and almost completely outside of the ZTV);
- NCN 756 (approximately 26 km to the north-west of the nearest turbine);
- NCN 75 (approximately 25 km to the north of the nearest turbine);
- NCN 73 (approximately 27km to the west of the nearest turbine);
- John Buchan Way (approximately 35 km to the east of the nearest turbine).

Core Paths and other Routes

6.6.71 Within the 35 km study area, there are numerous core paths, rights of way and other routes.

6.6.72 The core paths, aspirational core paths and wider access network that form part of the South Lanarkshire access network and other routes in the immediate vicinity of the site are described below. They are also illustrated within the Landscape Context Plan (Figure 6.11).

6.6.73 No core paths pass through the main development area within the Proposed Development site, nor the proposed access track development area. However, three aspirational core paths cross through the proposed access track area to the east of the main development area, as follows:-

- Dalquhandy dismantled railway (CL/5725/2) and Coalburn Proposed Cycle to Glenbuck (CL/5766/1);
- Hagshaw Hill – Arkney Hill (CL/5724/1) that partly follows the route of the access track, as it passes through the site of the proposed Douglas West Extension Wind Farm; and
- Dalquhandy (CL/5736/2)

6.6.74 In addition to these routes there a number of routes identified as part of the wider network, as follows:-

- Auchengilloch via Logan Farm (EK/5847/1) which passes through the northern part of the main development area as it follows the alignment of the existing access track that runs to Logan Farm. This route would be used as part of the access to Turbine 19.
- South Cumberhead to Hagshaw Hill (CL/5200/1) which follows the alignment of the existing forestry access track that would be utilised as part of the access track to the wind farm.

6.6.75 In the wider landscape the two nearest core paths to the Proposed Development are:

- Core Path (CL/3306/1) – Waterside Bridge – Stockbriggs situated approximately 2.5 km to the north-east; and
- Core Path (CL/5192/1-4, CL/5193/1-4 and CL/5190/1) – Dalquhandy to B7806 public road – crossing through the former opencast workings between Dalquhandy and Coalburn, approximately 4 km to the east of the Proposed Development.

6.6.76 There is also a large network of aspirational and wider network paths in and around Coalburn, many of which are associated with the remediation of the former opencast coal workings. There are also a number of routes in the landscape to the east and north-east of the site, some of which are 'on road' routes which utilise the minor road network.

Road and Rail Network

6.6.77 An extensive network of major and minor roads traverses the landscape within the 35 km study area.

6.6.78 The A70 runs to the south of the site through the Douglas Valley, between Lanark and Ayr. The road passes to the south of the site at its closest point at a distance of approximately 4 km.

6.6.79 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 7 km to the east of the site boundary.

6.6.80 The A71 runs to the north-west of the site. At its closest point between Stonehouse and Strathaven the route lies around 9.5 km from the Proposed Development site boundary.

6.6.81 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;
- the B7018 located to the north-east of the site;
- the B7086 which runs to the north of the site between Kirkmuirhall and Strathaven;
- the B7055 located to the south south-east of the site; and
- the B743 which lies to the west of the site.

6.6.82 The nearest railway line to the site is the Carlisle to Glasgow line which passes approximately 15 km to the north-east of the site at its nearest point. The Carlisle to Glasgow line splits at Carstairs Junction, with one branch continuing towards Edinburgh. Much of the railway line to the south of Carstairs Junction falls outside of the ZTV and therefore is not discussed further. Both of the routes north of Carstairs towards Glasgow and Edinburgh would have some theoretical visibility of the Proposed Development. However, at a distance of at least 15 km and in the context of the other urban development between the railway line and the site, it is not considered that there would be any potential for significant visual effects to occur. It is not therefore considered further in the main assessment.

Centres of Recreational and Tourism Activity

6.6.83 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 nature reserve, 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 Development. Figure 6.3 illustrates that there would be limited to 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.

6.6.84 The area to the north and north-east of Douglas centred on the Douglas Castle, known as the 'Douglas Castle Policies' is also a focus of local recreational activity. This publicly accessible area 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 local Pony Club, who hold events in the shadow of Castle Dangerous. The Douglas Castle ruin is situated in an area where there is no predicted visibility. However, there is theoretical visibility from parts of the wider policies area.

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

6.6.86 The site of the former Dalquhandy Opencast Coal Mine has also been opened up to public access but until restoration proposals fully mature, it is not yet particularly well used as a recreational centre.

6.6.87 To the north of the site, Strathaven includes a number of visitor attractions including the castle, a notable memorial to local residents who were killed in World War I and II, and its shops and market.

6.6.88 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

6.6.89 The South Lanarkshire Spatial Framework and Landscape Capacity for Wind Farms identifies a number of vantage points (or viewpoints) upon which the study of landscape capacity is based upon in terms of visual receptors. 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

6.6.90 For the purposes of providing a proportionate assessment, the above viewpoints marked * have been adopted as individual assessment viewpoints in the LVIA. Douglas Castle was discounted as potential viewpoint location as there would be no visibility of the proposals from that location.

Assessment Viewpoints

6.6.91 The desk studies, site visits and interpretation of the ZTVs, alongside consultation with statutory consultees, helped to identify 18 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).

6.6.92 Table 6.3 identifies the 18 assessment viewpoints. The locations of these assessment viewpoints are illustrated on Figure 6.14.

6.6.93 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 Nearest Turbine (km)	Character Area
1*	Coalburn, Muirburn Place	281169, 635550	4.7 km (T20)	5 – Plateau Farmland
2	M74 Overbridge	284424, 635419	7.8 km (T21)	5 – Plateau Farmland
3	Lesmahagow-Hillcrest	281589, 638731	6 km (T19)	8 – Upland River Valley
4*	Minor road, Brackenridge	276585, 639687	3.6 km (T19)	5 – Plateau Farmland
5	Sandford, School Road	272069, 643078	7.7 km (T16)	5 – Plateau Farmland
6	Strathaven, War Memorial	270452, 644626	10.1 km (T16)	5 – Plateau Farmland
7	A71, bridge crossing Calder Water	266371, 641894	10.8 km (T10)	8 – Upland River Valley
8	Black Hill	283197, 643548	10.2 km (T19)	4 – Rolling Farmland
9	A70 Rigside	287712, 635177	11 km (T21)	10 – Foothills
10	Tinto Hill	295316, 634372	18.5 km (T21)	11 – Prominent Isolated Hills
11	Douglas-Hill Street	283986, 630377	8 km (T21)	8 – Upland River Valley
12	Auchensaugh Hill	285330, 627198	10.8 km (T21)	7 - Rolling Moorland
13*	Victory Park, Muirkirk	269388, 627320	6.8 km (T1)	10 - Upland River Valley (East Ayrshire)
14	Nether Wellwood (A70)	264795, 625567	11.4 km (T1)	18a - Plateau Moorlands (East Ayrshire)
15	Cairn Table	272410, 624235	8.3 km (T1)	7 - Rolling Moorland
16	Cairn Kinney	278468, 621429	11.9 km (T1)	7 - Rolling Moorland
17	Hyndford Bridge	291488, 641453	16.2 km (T19)	9 – Broad Valley Upland
18	Loudoun Hill	260893, 637907	13.5 km (T17)	10 – Upland River Valley (East Ayrshire)

***Viewpoints 1, 4 and 13** were also identified as appropriate viewpoints to assess night-time lighting impacts of the Proposed Development which is covered in Appendix 6.4.

6.7 Assessment of 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.

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. The 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:

- 21 wind turbines, up to 200 m to a maximum blade tip (the proposed turbines are three bladed horizontal axis machines, the finish and colour of the turbines will be semi matt white or light grey in colour);
- crane hardstanding areas (approximately 50 m by 30 m);
- site access tracks (approximately 5 m wide);
- up to six new and one upgraded water crossings (in addition to a number which are already existing and would require no upgrades);
- a substation, control room and energy storage facility compound (compound would be approximately 100 m by 60 m and buildings within would be approximately 30 m x 10 m with heights of around 5 m);
- two construction compound/concrete batching areas (approximately 100 m by 60 m);
- a temporary turbine component laydown area (approximately 150 m by 70 m);
- three borrow pit search areas;
- 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 The Proposed Development site is currently largely comprising an area of commercial plantation. Parts of the plantation will be required to be felled to facilitate the Proposed Development, with blocks of trees felled relative to the proposed turbine locations and turbines "keyholed" into the plantation wherever possible (refer to Chapter 16: Forestry for further details). The remainder of the commercial crop will be felled in stages during the lifetime of the Proposed Development in line with the Forest Plan (see Chapter 16: Forestry), which would occur in the absence of the Proposed Development.

6.7.6 Access to the Proposed Development site would be via the existing tarmac road from Junction 11 of the M74, through the Douglas West Wind Farm site. From here it would then continue through the proposed Douglas West Extension wind farm site and onto an existing forest road past the operational Nutberry Wind Farm to the main development area. This road is sufficiently wide over its most part that there would be no need to undertake much (if any) road widening and hence the access route would not result in any significant effect on any existing landscape features. The exception to this is a short stretch of track which would be created for the Proposed Development if the proposed Douglas West Extension Wind Farm is not built in advance. This 1.38 km section of new track has been assessed separately in Appendix 3.3 of the EIA Report. All timber to be removed

from the site will leave via the existing permitted forestry route that passes along Station Road, Douglas to the A70.

6.7.7 Within the site, there are further existing forestry tracks that will be utilised wherever possible and upgraded to allow for the transportation of the turbine components. It will be necessary to introduce further access tracks within the plantation, and trees would need to be felled to accommodate this. However, the trees are a commercial crop and are therefore of low sensitivity.

6.7.8 The proposed turbines, the main construction compounds, the laydown area, the substation/energy storage compound, the two new anemometer masts, their associated foundations and crane pads, and all new access tracks would all be largely located within areas of commercial plantation, which will be felled to accommodate the Proposed Development.

6.7.9 There are three proposed borrow pit search areas within the site that are focussed on existing forestry borrow pit workings, as shown on Figure 3.1 Site Layout. These areas of search have been located to minimise effects upon the landscape, sited in a topographically higher part of the site, above the line of the watercourse issues within the site, and within the plantation and thus would be generally screened from view. The borrow pits 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.

6.7.10 The sensitivity of the forest is considered to be low. Although present within the landscape and noted in character description of the LCT, the forest is not an intrinsic landscape feature and has been planted for commercial purposes. Its geometric form contrasts with the underlying character of the rolling moorland. The plantation is not situated within a designated landscape, nor does it have particular factors to suggest increased landscape value. Furthermore, the ongoing change and modification which takes place to this feature throughout its lifespan, due to the continual cycle of harvesting and replanting, lowers its susceptibility.

6.7.11 Overall, it is considered that there would be a medium magnitude of effect upon landscape features giving rise no greater than a **moderate/minor** effect which is **not significant**.

6.7.12 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

6.7.13 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.

6.7.14 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).

6.7.15 Therefore, for each character type considered, a discussion is provided regarding any analysis of landscape sensitivity within the *South Lanarkshire Landscape Character Assessment*.

6.7.16 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).

6.7.17 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.

6.7.18 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.

6.7.19 *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.

6.7.20 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.

6.7.21 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

6.7.22 For each LCT and LCST 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/LCST before drawing a conclusion finally on the landscape sensitivity of each LCT/LCST 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 Value	Sensitivity to the Type of Development Proposed
South Lanarkshire			
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
7A. Rolling Moorland Forestry	Medium	Medium	Medium
7B. Rolling Moorland Windfarm	Low	Medium/Low	Medium/Low
8. Upland River Valley	Medium/High	Medium/High	Medium/High
9. Broad Valley Upland	Medium/High	Medium/High	Medium/High
10. Foothills	Medium	Medium/High	Medium
East Ayrshire			
10. Upland River Valley	High	Medium/High	Medium/High

LCT/LCST	Susceptibility to the Type of Change Proposed	Landscape Value	Sensitivity to the Type of Development Proposed
18a East Ayrshire Plateau Moorlands	Medium/High	Medium/High	Medium/High

Effects on Landscape Character during Construction

6.7.23 The Proposed Development site, including its access route, crosses several LCTs/LCSTs. 19 of the 21 proposed turbines are located within LCT 7A - Rolling Moorland Forestry, with just two turbines located within LCT 7 - Rolling Moorland. The majority of the proposed access routes are also located within LCST 7A, but also cross into parts of LCST 7B - Rolling Moorland Windfarm and a small discrete area LCT 7 – Rolling Moorland, but it should be noted the tracks would only occupy a small part of these LCTs/LCSTs and the tracks are existing.

6.7.24 The first part of the access track also runs through LCT 5 - Plateau Farmland. However, this section runs along a route which is an existing road to the former opencast mining operation. The route also provides access to the existing Biomass CHP Plant and will form the access to the Douglas West Wind Farm that has recently commenced construction.

6.7.25 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. The effects on landscape character would therefore increase incrementally as construction progresses and as more turbines and associated foundations and hardstanding are constructed.

6.7.26 As previously discussed, there would be a medium magnitude of effect on the existing commercial plantation that covers most of the site due to the requirement to fell a proportion of the trees. As the plantation forms the primary characteristic of the site, there would be noticeable difference in the appearance of the site as the trees are felled and removed to facilitate the Proposed Development. However, the plantation is a commercial crop and would be felled in the future regardless of the Proposed Development.

6.7.27 There would be earth movements associated with the construction of foundations, hardstandings, borrow pits, 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 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.

6.7.28 The main construction and storage compound and concrete batching area will also result in temporary direct effects within LCST 7A.

6.7.29 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. The cranes would also be seen in the context of existing turbines in the immediate landscape, namely those at Nutberry and numerous other schemes in the local area.

6.7.30 Overall, it is considered that there would be a medium magnitude of additional change (over that during the operation phase) for the reasons outlined above. This would result in no greater than a **moderate** to **minor** temporary additional effect on the LCST 7A - Rolling Moorland Forestry within which the Proposed Development is located over and above the permanent effects dealt with under the heading of 'Operational Effects' below. This temporary additional effect is not considered significant.

6.7.31 In relation to direct effects upon LCT 7 – Rolling Moorland, there are two proposed turbines located in this tract of the character type, however the area is relatively small and so the effects would be

experienced over a larger proportion of the area relative to its size. However, there would be no greater than a medium magnitude of change in character giving rise to a **moderate** to **minor** temporary additional effect that is not considered significant.

6.7.32 The construction effects would be temporary in nature and are unlikely to all occur at the same time during the construction phase.

6.7.33 It is noted that there will be no additional direct effects on either LCST 7B, the other tract of LCT7, or LCT5, as the section of the access route which passes through these LCTs are already existing tracks.

6.7.34 The additional construction effects of the Proposed Development on landscape character are deemed to be **not significant**.

Effects on Landscape Character during Operational Phase

6.7.35 The effects on landscape character are discussed below. The sensitivity of each LCT/LCST as identified in Table 6.4 has been combined with the magnitude of change resulting from the Proposed Development. 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.

6.7.36 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 a consideration of the 'future baseline' including consented, but not yet constructed, wind farms, as part of a separate assessment within the main part of the report. Other schemes in planning are addressed separately in the cumulative impact assessment.

6.7.37 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. 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 in the assessment against the 'future baseline' scenario, when compared to the assessment against the current baseline.

6.7.38 To aid the consideration of effects on landscape character, the ZTV has been overlaid on the character types within 15 km of the site. This is illustrated in Figure 6.9.

6.7.39 Beyond a short distance from the site, the ground level components of the Proposed Development would not be perceptible and the substation/control/energy storage building(s) would not be

readily noticeable beyond the LCTs in which they are located (LCTs 7 and 7A). 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. The removal of the commercial plantation is considered to have less of an impact upon the experience of the local landscape, as this would occur regardless of the Proposed Development, and the plantation will be replanted, as is to be expected during the lifecycle of a commercial crop.

6.7.40 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 notable distances 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.

6.7.41 The proposed turbines would be located within LCST 7A – Rolling Moorland Forestry and LCT7 – Rolling Moorland. Therefore, the Proposed Development will have a direct effect on the character of these LCSTs. The access tracks passing through LCT7 – Rolling Moorland, LCST 7B - Rolling Moorland Windfarm and LCT5 Plateau Farmland follow existing routes and thus there would be no direct effect upon landscape character. Effects on surrounding LCTs/LCSTs are considered to be indirect.

6.7.42 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

LCST 7A – Rolling Moorland Forestry

6.7.43 Nineteen of the proposed turbines are located within a tract of LCST 7A, which covers a wide area of commercial plantation in the landscape to the south and west of the former Dalquhandy opencast mine workings. As would be expected from the title of the LCST, the majority of the Proposed Development site is currently covered with plantation. The wind farm proposal would result in the removal of some trees to facilitate development, hence there would be a direct impact upon the nature of part of the LCST. However, by the very nature of plantation, it would be felled as a commercial crop, to be replanted, and thus such felling would occur irrespective of the Proposed Development. Further information with regards to the proposed felling regime is provided within Chapter 16 Forestry of the EIA Report.

6.7.44 Analysis of Figure 6.9, which shows the ZTV to blade tip overlaid on top of the LCT/LCST boundaries, indicates that there would be visibility of the Proposed Development from the whole of this particular tract of the LCST, which extends up to around 5 km to the east of the site and around 3.5 km to the north-east, at its furthest extent.

6.7.45 Where views are available, these would be seen in the context of a number of operational wind farms which are already located either within or in close proximity to this LCST. These include the existing Nutberry Wind Farm which lies within the LCST around 1 km to the south-east of the site.

6.7.46 The ground level components of the Proposed Development (i.e. the access tracks, substation/control building/energy storage facility, and the crane hardstanding areas) would be visible from areas within the site where the trees are to be felled, and its immediate surroundings. The crane hardstanding areas would be seen in their immediate environs, but the establishment of the replanted trees would reinstate the appearance of the plantation surrounding the proposed turbines.

6.7.47 Further from the site within the LCST, the availability of views of ground level components would reduce with distance. The retention of plantation within the site would also limit the opportunity to view such components of the Proposed Development.

6.7.48 It has already been established that there would be no significant effects on any existing landscape features. Therefore, the effects on landscape character within LCST 7A principally relate to the introduction of the new turbines (all but two of which are located within the LCST).

6.7.49 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 forested rolling land of the site would prevail.

6.7.50 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 wider underlying landscape 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 within the northern part of the LCST, becoming a characterising influence on the character sub type, alongside the existing Nutberry turbines located to the south-east, and other existing turbines in the nearby local landscape.

6.7.51 There is little sense of remoteness or wildness in the LCST due to the presence of extensive plantation, alongside the influence of existing wind energy development within the immediate adjacent landscape. The influence of the former open cast mining activity to the immediate north and east also reduce the sense of remoteness in the landscape, and therefore the proposed turbines would not serve to diminish the wildness of the landscape.

6.7.52 The Proposed Development would relate to the emerging cluster of wind energy developments in this part of the landscape. 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 LCST 7A is reduced. Notwithstanding this, it is recognised that due to the scale of the turbines proposed, within the relatively small part of the local landscape that does not currently feature existing or consented turbines, there would be a high magnitude of change upon the character of the northern portion of the forested landscape, up to 2 km distance, resulting in a **major/moderate** effect on landscape character within the immediate environs of the site, which would be significant and would be long term but non-permanent.

6.7.53 As the LCST covers an area of landscape that is primarily plantation, the presence of the remaining trees within the LCST would reduce the ability to appreciate the turbines from within the character sub type and thus with increasing distance from the site, within areas of plantation, the Proposed Development would not form a prominent feature in the landscape. As such, beyond 2 km the effects upon landscape character would quickly diminish with the magnitude of change becoming low and the level of effect being **minor** effect and not significant.

6.7.54 Although it is assessed that the Proposed Development would result in a high magnitude of change and a **major/moderate** and significant effect when considered against the existing baseline situation, when considered against the future baseline scenario that includes a greater number of wind farms within this LCST and adjacent LCTs the magnitude of change introduced by the Proposed Development within 2 km reduces to medium, resulting in a **moderate** effect that is considered significant.

6.7.55 This is because the additional schemes of Cumberhead, Douglas West, Hagshaw Hill Extension, and part of Dalquhandy are situated in the eastern part of this LCST and occupy over half the total land area, meaning that wind turbines would be an established and characteristic feature of this LCST. The Proposed Development would occupy a large proportion of the remaining part of the LCST, yet the turbines are sufficiently spaced enabling the underlying rolling moorland forestry character to remain the defining element within the LCST.

6.7.56 Beyond 2 km, the magnitude of change would remain as low and the level of effect would also remain as **minor** and not significant.

LCT 7 – Rolling Moorland

6.7.57 A small parcel of this LCT is located within and adjacent to the Proposed Development site, in which two of the proposed turbines are located. This parcel partly comprises moorland but also comprises managed farmland grazing fields to the south-west of South Cumberhead.

6.7.58 There would be clear visibility of the Proposed Development from all of this small area of the LCT due to its openness and location outside of the plantation. In addition to the turbines, the crane hard standing areas associated with the turbines located within this LCT would be visible from parts of this LCT. These features would be highly visible in their immediate environs.

6.7.59 However, it should be noted that this small unit of LCT 7 is located in very close proximity to the operational Nutberry Wind Farm and thus the Proposed Development would not introduce new elements that do not already influence the character of this LCTs character.

6.7.60 In this context of an established presence of wind energy in the local landscape, the potential for the Proposed Development to result in impact on the character of the landscape is diminished. Notwithstanding this it is recognised that due to the scale of the turbines proposed compared with the existing Nutberry turbines, within this relatively small sub unit of LCT 7, which extends to more than 1.3 km from the site and is open, there would still be a high magnitude of change, resulting in a **major** effect on landscape character which would be significant and would be long term but non-permanent. The area would also in effect therefore serve to become another area of LCT7B – Rolling Moorland Windfarm, in keeping with the other identified area of this LCST, in and around the Hagshaw Hill Wind Farm.

6.7.61 Considered against the future baseline scenario that would include the addition of Cumberhead Wind Farm in addition to the existing Nutberry Wind Farm, the magnitude of change introduced by the Proposed Development would be medium, resulting in a **moderate** effect that would be significant. This reduction in the level of effect is due to the reduced effect the Proposed Development would have on the character of the LCT due to the presence of a greater number of wind turbines adjacent to the LCT that would more strongly influence its character.

Other Landscape Character Types within 15 km - South Lanarkshire

LCT 4 - Rolling Farmland

6.7.62 There are three separate areas of LCT4 within 15 km of the site. The nearest of which covers the landscape just beyond 5 km from the site to the north-west, in the area to the south of the Avon Water. Analysis of Figure 6.9 which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be almost no visibility from this area of the landscape, due to the intervening screening of the higher land at Kype Muir. Therefore, the magnitude of change would be very low and there would be **no effect** on this area of LCT4 in either the baseline or future baseline scenario.

6.7.63 The second two areas of LCT4 within 15 km of the site covers landscapes to the south-west of Lanark, the nearest part of which lies around 10 km from the site. Again, there is little potential visibility from much of this area due to the screening effects of Dillar Hill. The second of these two north-easterly areas is situated to the south of Lanark at over 13 km from the site. At such distances from the Proposed Development the development would be barely perceptible, with a very low magnitude of change and as such would have no more than a **minor/no effect** on the landscape character of these areas in either the baseline or future baseline scenario.

LCT 5 – Plateau Farmland

6.7.64 There are broadly speaking, three separate tracts of LCT5, which lie within 15 km of the site. Firstly, a very small area which lies to the immediate north-east of the site. Secondly, a large area to the north-east of the site that extends from Happendon Services in the south, as far as Sandford to the north-west and Larkhall to the north. Finally, a third area which covers a broad area to the north-west of the Avon Water valley and to the north-west of Strathaven.

6.7.65 In keeping with the majority of this part of south-west Scotland, the character of the very small area of LCT5 which lies to the immediate north-east of the site is already in part defined by the views of

wind energy development that are already available from the area in multiple directions. Indeed, there are already three small wind turbines located within this area to the west of Cleughhead Farm. As such, the introduction of the Proposed Development would not be an entirely new feature to the views from the area. However, the existing Nutberry turbines are set back some distance from this LCT and given the close proximity of this LCT to the site and the introduction of the Proposed Development turbines adjacent to its southern edge there would be a notable additional influence of wind energy development on the character of this small tract of farmland landscape which would result in a high magnitude of change on landscape character when considered against the current baseline. Within this part of LCT 5, there would therefore be a **moderate/major** effect, which would be significant. This would also be the case for a future baseline scenario due to close proximity of the site to this area and the separation between this area and the additional schemes at Cumberhead to the south and Dalquhandy to the east.

6.7.66 Due to the size of the large area of LCT5 which extends from Happendon Services in the south, as far as Sandford to the north-west and Larkhall to the north, effects on landscape character across this tract of LCT 5 will inevitably vary and generally decrease with distance from the site. The closest points to the site is approximately 2.6 km to the north north-east in the vicinity of South Brackenridge and approximately 4.1 km to the east at Coalburn.

6.7.67 Analysis of Figure 6.9, 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 the majority of the LCT unit. However, in reality, vegetation and built form in the intervening landscape would screen the Proposed Development, where present.

6.7.68 In views towards the site from this tract of LCT 5, wind turbines already form a prominent element of the baseline landscape character, and this will be particularly the case once the Douglas West and consented Dalquhandy wind farms are constructed. As a consequence of this, the potential for the Proposed Development to impact on the character of the landscape is reduced.

6.7.69 However, the Proposed Development turbines would be notable new elements in the view but would become less prominent in the view once the Douglas West and consented Dalquhandy turbines are constructed. 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.

6.7.70 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 Auldton heights 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. It is noted that Viewpoint 1 is located in this part of the LCT and provides a useful illustration of the effects on this part of the LCT.

6.7.71 However, considered against the future baseline scenario which would include Dalquhandy, Cumberhead, Douglas West and Broken Cross the magnitude of change to landscape character would remain as medium but the moderate effect would no longer be significant due to the additional influence of the other adjacent wind farms that would already be present.

6.7.72 North of this row of pylons and north-west of Lesmahagow, whilst 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 assimilated with other wind energy development within the landscape. Therefore, beyond a distance of approximately 5 km from the site there would be no more than a low magnitude of change resulting in a **minor** effect, which would not be significant. This would be the case for both the current baseline and future baseline scenarios.

6.7.73 The final area of LCT 5 covers a broad area beyond 10 km to the north-west of the site, extending from Drumclog in the south, north-west of Strathaven and to the north of Stonehouse in the north. landscape just to the south of the Logan Water, around 4 km to the north-west of the site. To the immediate north-west of this area is the Whitelee and Whitelee Extension wind farms and to the south-east of this area lies the Kype Muir and Auchrobert wind farms, which are situated between this LCT area and the Proposed Development turbines. In this context the potential for the Proposed

Development to bring about a change to the character of the landscape is severely limited. As such the Proposed Development would result in a very low magnitude of change with effects on this area no greater than **minor**. With the addition of the Kype Muir Extension in a future baseline scenario, the Proposed Development would result in no greater than **minor to no effect**, which is therefore not significant.

LCST 5B – Plateau Farmland Opencast Mining

6.7.74 A unit of LCST 5B is located to the east of the site and covers the tract of land to the south of the settlement of Coalburn, between 2 and 5 km from the site. As the title of the LCST suggests, this landscape is the former Dalquhandy Opencast Mine and its primary characteristic is the remnant mined landscape. The landscape is not intact and subsequently is of low sensitivity. The former opencast mine is also the location of the consented Dalquhandy Wind Farm, which will see the introduction of commercial scale turbines to the landscape in the western half of the LCST.

6.7.75 The Proposed Development turbines would appear as prominent elements in the landscape. However, the character of this unit is already influenced by the existing Hagshaw Hill and Nutberry wind farms that are situated closer to it than the Proposed Development. Nonetheless, the taller height of the Proposed Development turbines experienced at distances over 1.5 km would result in a medium magnitude of change and a **moderate/minor** effect which is not significant.

6.7.76 When considered against the future baseline scenario that would include the Douglas West to the immediate south, Dalquhandy that would be situated within the western half of this area, the Hagshaw Hill Repowering scheme to the south and the Cumberhead scheme to the west, the magnitude of change to the character of the unit would be low, resulting in a **minor** effect which is not significant.

LCT 6 – Plateau Moorland

6.7.77 LCT 6 occurs in three locations within 15 km of the site. Each of the areas are geographically relatively modest in size. The first unit lies to the east of the site at a distance of approximately 2.5 km, covering the landscape to the north-west of Coalburn. A second area of LCT 6 covers the landscape between Auchensaugh Hill and Crawfordjohn, located approximately 11 km to the south-east of the site. The final area lies around 13 km to the north-west of the site, beyond the A71.

6.7.78 The ZTV to blade tip overlaid on top of the LCT boundaries at Figure 6.9 shows that the Proposed Development would be theoretically visible from the entire part of the area of LCT covering the landscape to the north-west of Coalburn. Whilst defined separately in the landscape character assessment, this unit of the Plateau Moorland shares many of its characteristics with LCT 5, and it is particularly influenced by the presence of the opencast mine to the immediate south (LCST 5B). It should also be noted that much of this landscape unit has been planted with forestry, which will establish and alter the nature of the land, and in a number of years it would probably be appropriate to reclassify this area as LCT 6A – Plateau Moorland Forestry.

6.7.79 The recently planted forestry would begin to restrict visibility at it establishes, and throughout the lifetime of the Proposed Development, intervisibility with LCST 7A, in which the site is located, would decrease over time.

6.7.80 Across this tract of LCT 6, the turbines would be highly noticeable where intervening vegetation does not obstruct views but would be seen in the context of multiple other operational and consented wind energy developments, some of which would lie closer than the Proposed Development. The existing schemes already have a notable influence of the character of the landscape and this would be reinforced by the presence of the additional schemes of Douglas West, Dalquhandy and Cumberhead once they are built out.

6.7.81 Assessed against the current baseline, this area of LCT 6 would experience a medium to high magnitude of change to landscape character and overall **moderate** effect which would be significant. Assessed against the future baseline scenario that would include the addition of the Dalquhandy scheme to the immediate south of this area and the Cumberhead and Douglas West wind farms to the south-west the magnitude of change would be medium but the **moderate** effect would no longer be significant.

6.7.82 The second area of LCT 6 covers the landscape between Auchensaugh Hill and Crawfordjohn, located approximately 11 km to the south-east of the site. The area includes the site of the Middle Muir Wind Farm and lies only partly within the ZTV of the proposed turbines. In the context of the Middle Muir Wind Farm and the adjacent Andershaw Wind Farm together with the existing Galawhistle, Hagshaw Hill, and Nutberry situated between this LCT and the Proposed Development 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 very low magnitude of change and a **minor** effect, as a result of the Proposed Development. Assessed against the future baseline that would include Hagshaw Hill Repowering, Hagshaw Hill Extension, Douglas West and Cumberhead wind farms between this LCT and the Proposed Development there would be no more than a very low magnitude of change and a **minor/no effect**.

6.7.83 The final area of the LCT covers the landscape beyond the A71, around 13 km to the north-west of the site. Whilst there is theoretical visibility of the proposals from this area, the large wind energy cluster at Whitelee Forest is located in very close proximity to the area to its north-east, in particular the Calder Water and West Browncastle wind farms. In this context the potential for the character of the LCT to be influenced by a further wind energy development at a distance of 13 km away would be heavily diminished and the Proposed Development would result in **no effect** on this area.

LCT 7 – Rolling Moorland

6.7.84 Nine further discrete areas of LCT 7 are located within 15 km of the Proposed Development. Three of these areas are located to the east and north-west of the Proposed Development. The nearest of these covers the landscape immediately to the north-west of the site boundary, including Grouse Hill and Dunside Rig, and extends to approximately 3.6 km from the site at its furthest point and is characterised by the rolling topography and the open moorland land cover.

6.7.85 Analysis of Figure 6.9, which shows the ZTV to blade tip overlaid on top of the LCT/LCST boundaries, indicates that there would be visibility of the Proposed Development from the whole of this particular instance of the LCT, occupying the intervening moorland between the Proposed Development and the existing wind cluster of Auchrobert, Kype Muir and Dungavel Hill. The Proposed Development is situated in an adjacent LCST and as such any resultant character effects would be indirect. The presence of the existing wind farms to the north-west and to a lesser degree Nutberry Wind Farm to the south-east means that the character of this LCT is already influenced by the proximity of existing turbines, resulting in a medium magnitude of change and a **moderate** and significant effect.

6.7.86 Assessed against the future baseline scenario, that would include Kype Muir Extension to the north-west and Cumberhead to the south east, there would still be a medium magnitude of change. However, due to the influence exerted on the landscape character of this LCT by these schemes that are situated outside of this LCT, yet close to it, the effect to landscape character resulting from the Proposed Development would remain as **moderate** but would no longer be considered significant due to the established presence of wind farms close to this area.

6.7.87 The other two areas of LCT 7 to the north-west of the Proposed Development cover the landscape of Hawkwood Hill and Feeshie Moss and also the area adjacent to the boundary with East Ayrshire which slopes down to the Avon Water from Graystone Hill and Mill Rig. These two landscapes are primarily the north and west facing slopes of the ridge of hills which runs to the north-west of the site, in which a number of other wind farms are located. As demonstrated on the ZTV, there is therefore limited potential visibility of the Proposed Development from these two areas and in the context of the existing wind energy infrastructure no more than a **minor/no effect** on these tracts of LCT 7 when considered against both the existing and future baseline scenarios.

6.7.88 The remaining six tracts of the LCT 7 landscape are located to the south-east of the site. Two of these are located on the northern side of the Douglas Water Valley and the westernmost of these, situated to the west of Hagshaw Hill is already heavily influenced by existing wind energy development at Hagshaw Hill, its extension and Galawhistle. The other, smaller area also has views of these schemes and is the location of the Douglas West Wind Farm that has recently commenced construction. On that basis the potential for the Proposed development to bring about impacts to the character of these landscapes is reduced. For the westernmost of these areas, where ZTV

coverage of the Proposed Development is also limited, the effect would be **minor/no effect.** For the easternmost area, there would be greater theoretical visibility but at distance of over 6 km from the site, and with the existing Nutberry turbines already located between the site and the LCT there would be no greater than a low magnitude of change, resulting in a **minor effect**. In a future baseline scenario, which incorporates the Douglas West Wind Farm that has recently commenced construction, this area of the LCT will already be fully characterised by wind energy, such that it will form a further tract of LCST 7B. There would therefore be a **minor/no effect** on this tract of LCT 7 at that point.

6.7.89 The remaining four areas of LCT7 that lie to the south of the Douglas Water Valley, are also already heavily influenced by the existing wind energy development that lies between them and the site, including at Hagshaw Hill and its extension and Galawhistle. This would therefore notably reduce the potential for impact on landscape character to occur as a result of the Proposed Development.

6.7.90 The first of these areas covers the moorland landscape in and around Pagie Hill and Auchensaugh Hill at a distance of around 10 km from the site. The Andershaw and Middle Muir Wind Farm turbines, located to the south, are also a notable presence in views from this landscape. Assessment viewpoint 12 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 second area covers 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). 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. The remaining areas of LCT7 to the south of the site cover tracts of the landscape around Pinkstone Rig, Common Hill, and Mountherrick Hill, and also the area extending between Auchendaff Hill and Cairn Kinney. Assessment viewpoint 16 represents Cairn Kinny and serves to illustrate the landscape character of this area of LCT7, which is visible in the foreground of the view.

6.7.91 For much of these areas, ZTV coverage would be intermittent, and they would for the most part lie beyond 5 km from the site. The existing Andershaw Wind Farm turbines are a notable feature when viewed from much of this part of the landscape, in addition to the existing wind farms at Galawhistle, Hagshaw Hill and its Extension, which lie in the foreground of views towards the site. This context serves to limit the potential for additional wind turbines 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. On that basis, it is considered that the effect of the Proposed Development on these four areas would be no more than **minor**, for distances up to 10 km from the site and **minor/no effect** for areas beyond 10 km**.** Considered against the future baseline the effects to landscape character for all these four areas is assessed as no more than a very low magnitude of change and effects would be **minor/no effect**.

LCT 7A – Rolling Moorland Forestry

6.7.92 There are three further tracts of LCST 7A within 15 km of the proposed turbines, one approximately 2 km to the north-west of the site at Kype Muir and extending south-west towards Dungavel Hill and two of which lie across the Douglas Water Valley at least 7 km from the site.

6.7.93 The operational Kype Muir, Dungavel and Auchrobert wind farms and the consented Kype Muir extension, Stoney Hill Farm and South Priorhill Farm wind farms are located within this area to the west of the site.

6.7.94 To the east of Douglas Water, the easternmost of the two tracts has the Andershaw and Middle Muir Wind Farms within and adjacent to the area. The consented Penbreck and Kennoxhead schemes are located in the western of the two tracts. Both of these areas also have a number of other existing and consented schemes between them and the Proposed Development, including the Hagshaw Hill Wind Farm and its extension.

6.7.95 On this basis the Proposed Development would therefore have no more than a **minor/no effect** on these three tracts of LCST 7A situated at further distance from the Proposed Development site in both the baseline and future baseline scenarios.

LCT 7B – Rolling Moorland Windfarm

6.7.96 LCT 7B occurs once within 15 km of the site and approximately 3 km to its south east. As the name suggests it is an area that is already heavily influenced by wind turbine development, with Hagshaw Hill, Hagshaw Hill Extension situated within this LCST with further wind farms situated to its north west at Cumberhead and at Nutberry. Analysis of the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that theoretical visibility is very limited within this LCST and restricted largely to the summits of Common Hill, Broomerside hill and Windrow Hill. Situated over 3 km to the south east of the site, with Cumberhead and Nutberry wind farms situated the Proposed Development and the LCST it is considered that the Proposed Development would result in no more than a **minor/no effect** to the character of this LCST in both the existing and future baseline scenarios.

LCT 8 – Upland River Valley

6.7.97 LCT 8 occurs in four discrete locations within 15 km of the site (associated with Douglas Water; the River Nethan/Logan Water; Avon Water; and Duneaton Water).

6.7.98 The River Nethan/Logan Water area of LCT 8 lies wholly within 5 km of the site, with the valleys associated with the two watercourses running to the north and east of the site. Analysis of the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that theoretical visibility would be available from the majority of the area. In reality, the lower slopes of parts of the River Nethan valley are well wooded and actual visibility would be less than indicated by the ZTV. Within parts of the River Nethan/Logan Water area of LCT 8 where the turbines are not screened by vegetation, the Proposed Development would give rise to a high magnitude of change in the character of parts of the valley at distances of up to 3.5 km from the proposed turbines and that this would result in a **major/moderate** effect which would be significant. Beyond 3.5 km the magnitude of change reduces to medium due to the greater influence of scheme of wind farms to the north of the Proposed Development and the increasing influence of overhead pylon line that passes to the south of Lesmahagow, resulting in a **moderate** effect that is not considered significant.

6.7.99 Considered against the future baseline scenario and the greater influence of the Cumberhead and Dalquhandy schemes situated to the south-west of the southern leg of this LCT the magnitude of change would be medium, resulting in a **moderate** and significant effect up to 3.5k m. Effects beyond 3.5 km would remain as moderate and not significant.

6.7.100 The Douglas Water area of LCT 8 lies approximately 5 km to the south-east of the nearest proposed turbine location. Analysis of Figure 6.9, which shows the ZTV to blade tip overlaid on top of the LCT boundaries, indicates that there would be very little theoretical visibility of the turbines throughout this area of LCT 8. This is demonstrated with reference to the visualisations prepared for assessment Viewpoint 11, which illustrates that even from the higher ground on the eastern edge of Douglas, there would be no more than blade tips theoretically visible. In this context, it is considered that the Proposed Development turbines would result in no more than a **minor/no effect** on the character of this area. Considered against the future baseline scenario in which Hagshaw Hill Extension, Hagshaw Hill Repowering, Douglas West and Cumberhead are situated between this LCT and the Proposed Development, there would be **no effect** resulting from the Proposed Development.

6.7.101 The Avon Water area of LCT 8 lies approximately 8 km to the north-west of the site. Due to the low-lying nature of the river valley, the potential for visibility of the Proposed Development is severely restricted, as evidenced with regard to the ZTV. This area is influence by the closer proximity of the Auchrobert and Kype Muir wind farms which are situated between this LCT and the Proposed Development. In this context the Proposed Development turbines would result in no more than a **minor/no effect** on the character of this area. Considered against the future baseline scenario in which would include Kype Muir Extension would be situated between this LCT and the Proposed

Development, there would be no more than a **minor/no effect** resulting from the Proposed Development.

6.7.102 The Duneaton Water area of LCT 8 lies approximately 10 km to the south of the site at its closest point. Again, in part due to its low lying nature, there would be no potential for views of the Proposed development from this area of the LCT and **no effect** on its landscape character in either the baseline or future baseline scenarios.

LCT 9 – Broad Valley Uplands

6.7.103 LCT 9 only occurs in one location within 15 km of the site at Figure 6.8, along the Douglas Water, and at its closest lies approximately 9 km east of the site, extending to beyond 20 km away.

6.7.104 Analysis of the ZTV to blade tip overlaid on top of the LCT boundaries, shown in Figure 6.9, indicates that there would be some visibility of the proposed turbines from the majority of the LCT, excluding the lowest lying ground alongside the river itself. However, the tract of the LCT lying closest to the proposed turbines is either within or directly beyond Happendon Wood such that in reality, visibility of the turbines would be restricted to areas beyond 10 km in this LCT. Beyond 10 km and where there are no visual obstructions, the proposed turbines would be seen in the wider landscape from this LCT in a south-westerly direction. Viewpoints 9 and 17 are representative of the views from within this LCT.

6.7.105 In views from this tract of LCT 9, the Hagshaw Hill turbines are already visible, as are the Nutberry turbines such that views in the direction of the site from the LCT are already characterised in part by the presence of turbines. These would be supplemented by views of the Douglas West, Dalquhandy and Broken Cross turbines once these are constructed.

6.7.106 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 magnitude of change resulting in a **minor** effect which is not significant.

6.7.107 Considered against the future baseline scenario that would include Broken Cross in the immediate vicinity of the LCT plus the addition of the Dalquhandy and Douglas West schemes to the east of the Proposed Development, closer to this LCT, the magnitude of change resulting from the Proposed Development would reduce but would remain low and the overall effect would reduce to **minor/no effect**.

LCT 10 – Foothills

6.7.108 There is one area of LCT 10 within 15 km of the site, located approximately 10 km to the east of the site. This tract of land covers the landscape to the east of the B7078/M74 and the south-east of the A70. 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, the magnitude of change would no greater than low, resulting in a **minor** effect which is not significant.

6.7.109 This level of effect would reduce to **minor/no effect** in the future baseline scenario that would include the Douglas West, Hagshaw Hill Repowering, Hagshaw Hill Extension and Dalquhandy, all of which are situated in closer proximity and as such would influence the character of the character of the LCT.

Other Landscape Character Types within 15 km - East Ayrshire

LCT 10 –Upland River Valley

6.7.110 There are two areas of East Ayrshire LCT 10 within 15 km of the site. The first area covers the landscape along the River Ayr valley westwards from the boundary with South Lanarkshire, near Glenbuck, which lies around 3.5 km from the site, and extends beyond 15 km. Viewpoints 13 and 14 are located in this landscape character type and serve as useful indicators of the potential impact on those parts of the landscape from which the turbines would be visible.

6.7.111 Much of the landscape of this LCT between Glenbuck and Muirkirk, would have reduced visibility of the Proposed Development, with parts of the landscape surrounding Glenbuck and Black Hill having no 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 and Hagshaw Hill Extension turbines in the same angle of view. The Galawhistle turbines are located much closer to the viewer on the elevated ground of Hareshaw Hill, such that notwithstanding their greater height, the Proposed Development turbines would not extend the vertical height of visible turbines in the landscape beyond that which is already established by the Galawhistle Wind Farm.

6.7.112 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 more western parts of this LCT, the turbines would not introduce a new element to the landscape as wind energy development is already an established feature of the character of the landscape in views eastwards towards South Lanarkshire. There would be no greater than a low to medium magnitude of change and a **moderate/minor** 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.

6.7.113 This level of effect would reduce to **minor** in the future baseline scenario due to the influence of the Cumberhead Wind Farm which would be situated closer to this LCT, reinforcing the presence of wind development that already influences the character of this LCT.

6.7.114 The second area of East Ayrshire LCT 10 within 15 km of the site covers the Irvine Valley. Visibility of the Proposed Development from this area of the landscape would be limited, with Viewpoint 18 at Loudoun Hill illustrating views from the highest point within this LCT. With reference to the ZTV at Figure 6.9 theoretical visibility is patchy and mainly limited to the eastern part of this area, which is already influenced by the existing turbines at Kype Muir and Auchrobert which are situated within the landscape between the LCT and the Proposed Development. From the ground-level easterly views are further restricted by woodland and tree cover within the eastern part of the LCT and in adjacent LCTs to the east and by forestry plantation on the north-westerly slopes of Dungavel Hill and Kype Muir, such that at a distance of more than 11 km, the Proposed Development would result in a no greater than low to very low magnitude of change to the character of the LCT and **minor/no effect**, in both the consented and future baseline scenarios.

LCT 18a – East Ayrshire Plateau Moorlands

6.7.115 The landscape of LCT18a covers the area both to the north and south of the Ayr River Valley to the south-west of the site and extends across a large tract of the landscape including land beyond 15 km away from the Proposed Development. ZTV coverage over this area is often limited, with coverage focussed on the areas around Middlefield Law and to the north of Wardlaw Hill. A third and smaller area of LCT18a also occurs approximately 13 km to the west of the site at Watstone Hill.

6.7.116 The area to the immediate south-west of the site at Starpet Rig and 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 within a sub type (rolling moorland forestry). The folded landform with its narrow valleys means that theoretical visibility is generally limited to the upper slopes of the moorland. The area also lies in very close proximity to the Galawhistle Wind Farm, views of which already form a key characteristic of the landscape in this area. The existing Hagshaw Hill and Nutberry turbines are also key features in the view to the north-east. In this context, whilst the Proposed Development turbines would be noticeable elements in the view resulting in a

medium magnitude of change, they would result in no more than a **moderate** effect on the character on this tract of the LCT18a landscape, which would be significant.

6.7.117 Considered against the future baseline scenario which would also include Hagshaw Hill Repowering, Douglas West and Cumberhead in addition to the wind farms already present, the Proposed Development would read as a continuation of this existing wind cluster to the north-east of the LCT and would reduce the magnitude of change. However, the effect would remain **moderate** and significant due to the closer proximity of the Proposed Development to the LCT compared with the additional future baseline wind farms.

6.7.118 Within the same sub-area to the north of the River Ayr valley, the landscape around Middlefield Law lies around 11 km to the south-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 views are available, and 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 a feature. At a distance of around 11 km away the turbines, whilst visible, the magnitude of change would be low, resulting in more than a **minor** effect on the character of the landscape when assessed against the current and future baseline scenarios.

6.7.119 To the south of the River Ayr valley, the landscape to the north of Wardlaw Hill, including Wood Hill slopes gradually down towards the River Ayr and lies generally, over 10 km from the site. A broad expanse of moorland, the area is already partly characterised by distant views of wind energy development, including the Galawhistle Wind Farm, Hagshaw Hill and Hagshaw Hill Extension turbines in the vicinity of the site. The proposed turbines would be noticeable in the landscape, but in the context of their distance and given the existing turbines already present the magnitude of change would be low, resulting in more than a **minor** effect on the character of the landscape. The addition of the Kennoxhead scheme within this LCT in the future baseline scenario would mean that the magnitude of change introduced by the Proposed Development is assessed as low/very low and the effect would be **minor/no effect**.

6.7.120 The third instance of this LCT occurs over 12 km to the west of the nearest turbine and extends west beyond 15 km from the site. The area occupies the north-easterly slopes of Distinkhorn and the slope of Watstone Hill to the west of Avon Water. The existing Bankend Rigg Wind Farm is situated close to the eastern edge of the LCT, while the existing Dungavel and Whitelee wind farms are situated to the east and north respectively. As such wind development is already a component of the character of this sub-area. The Proposed Development at over 12 km from this area would result in a low/very low magnitude of change that would barely noticeable and **minor/no effect** when assessed against both the current and future baseline scenarios.

6.7.121 Table 6.5 below provides a detailed summary of the effects of the Proposed Development on landscape character.

Table 6.5 - Summary of Effects on Landscape Character

Landscape Character Type/Sub-type	Sub Area/Location	Magnitude of Change	Level of Effect	Significant
Landscape Character Types in which the Turbines are located				
7A. Rolling Moorland Forestry				
Baseline	Up to 2 km from the site	High	Major/ moderate	Yes
	Beyond 2 km	Low	Minor	No
Future baseline	Up to 2 km from the site	Medium	Moderate	Yes
	Beyond 2 km	Low	Minor	No
7. Rolling Moorland				

Landscape Character Type/Sub-type	Sub Area/Location	Magnitude of Change	Level of Effect	Significant
Baseline	Up to 1.3km from the site	High	Major	Yes
Future baseline	Up to 1.3km from the site	Medium	Moderate	Yes
Other Landscape Character Types within 15 km (South Lanarkshire)				
4. Rolling Farmland				
Baseline and Future baseline	Sub-area to the north-west	Very Low	No effect	No
Baseline and Future baseline	Sub-areas to the north-east	Very Low	Minor/No effect	No
5. Plateau Farmland				
Baseline	Sub-area to the immediate north-east of the site	High	Major/ moderate	Yes
	Sub-area to the north-east, south of Auldtonheights, west of B7078	Medium	Moderate	Yes
	Sub-area to the north-east west of Lesmahagow and Kirkmuirhill	Low	Minor	No
	Sub-area to the north-west beyond 10 km	Very low	Minor	No
Future baseline	Sub-area to the immediate north-east of the site	High	Major/ moderate	Yes
	Sub-area to the north-east, south of Auldtonheights, west of B7078	Medium	Moderate	No
	Sub-area to the north-east west of Lesmahagow and Kirkmuirhill	Low	Minor	No
	Sub-area to the north-west beyond 10 km	Very low	Minor/no effect	No
5B. Plateau Farmland Opencast Mining				
Baseline	Landscape to the immediate north and north-west of the site.	Medium	Moderate/ Minor	No
Future baseline	Landscape to the immediate north and north-west of the site.	Low	Minor	No
6. Plateau Moorland				
Baseline	Sub-area 2.5 km to the east	Medium/ high	Moderate	Yes
	Sub area 11 km to the south-east	Very Low	Minor	No
	Sub area 13 km to the north-west	Very Low	No effect	No
Future baseline	Sub-area 2.5 km to the east	Medium	Moderate	No
	Sub area 11 km to the south-east	Very Low	Minor/No effect	No
	Sub area 13 km to the north-west	Very Low	No effect	No
7. Rolling Moorland				

Landscape Character Type/Sub-type	Sub Area/Location	Magnitude of Change	Level of Effect	Significant
Baseline	Sub-area to the immediate north-west of the site	Medium	Moderate	Yes
	Sub-areas to the north-west	Very Low	Minor/No effect	No
	Sub-area to the south-east – western area	Very Low	Minor/No effect	No
	Sub-area to the south-east – eastern area	Low	Minor	No
	Sub-areas to the south of Douglas Water up to 10 km	Low	Minor	No
	Sub-areas to the south of Douglas Water beyond 10 km	Very Low	Minor/No effect	No
Future baseline	Sub-area to the immediate north-west of the site	Medium	Moderate	No
	Sub-areas to the north-west	Very Low	Minor/No effect	No
	Sub-area to the south-east – western area	Very Low	Minor/No effect	No
	Sub-area to the south-east – eastern area	Very Low	Minor/No effect	No
	Sub-areas to the south of Douglas Water up to 10 km	Very Low	Minor/No effect	No
	Sub-areas to the south of Douglas Water beyond 10 km	Very Low	Minor/No effect	No
7A. Rolling Moorland Forestry				
Baseline and Future baseline	Sub-area 2 km to the north-west	Very Low	Minor/No effect	No
	Sub-areas to the south and east of Douglas Water	Very Low	Minor/No effect	No
7B. Rolling Moorland Windfarm				
Baseline and Future baseline	Sub-area 3 km to the south-east	Very Low	Negligible	No
8. Upland River Valley				
Baseline	Sub-area to the east up 3.5 km	High	Major/ moderate	Yes
	Sub-area to the east beyond 3.5 km	Medium	Moderate	No
	Sub-area to the south-east beyond 5 km	Very Low	Minor/ No effect	No
	Sub-area to the 8km to the north-west	Very Low	Minor/ No effect	No
	Sub-area 10 km to the south	Very Low	No effect	No

Landscape Character Type/Sub-type	Sub Area/Location	Magnitude of Change	Level of Effect	Significant
Future baseline	Sub-area to the east up 3.5 km	Medium	Moderate	Yes
	Sub-area to the east beyond 3.5 km	Medium	Moderate	No
	Sub-area to the south-east beyond 5 km	Very Low	No effect	No
	Sub-area to the 8 km to the north-west	Very Low	Minor/ No effect	No
	Sub-area 10 km to the south	Very Low	No effect	No
9. Broad Valley Uplands				
Baseline	Sub area along the Douglas Water	Low	Minor	No
Future baseline	Sub area along the Douglas Water	Low	Minor/ No effect	No
10. Foothills				
Baseline	Sub area to the east	Low	Minor	No
Future baseline	Sub area to the east	Low	Minor/No effect	No
Other Landscape Character Types within 15 km (East Ayrshire)				
10. Upland River Valley (East Ayrshire)				
Baseline	Sub area to the south-west	Low/ Medium	Moderate/ Minor	No
Future baseline	Sub area to the south-west	Low/ Medium	Minor	No
Baseline and Future baseline	Sub area to the west at 11 km	Low/Very Low	Minor/No effect	No
18a. Plateau Moorlands (East Ayrshire)				
Baseline	Sub area to the south-west at Starpet Rig and Sclanor Hill	Medium	Moderate	Yes
	Sub area to the south-west around Middlefield Law	Low	Minor	No
	Sub area to the north of Wardlaw Hill	Low	Minor	No
	Sub-area 12 km to the west	Low/Very Low	Minor/No Effect	No
Future baseline	Sub area to the south-west at Starpet Rig and Sclanor Hill	Medium	Moderate	Yes
	Sub area 11 km to the south-west around Middlefield Law	Low	Minor	No
	Sub-area to the north of Wardlaw Hill	Low/Very Low	Minor/No effect	No
	Sub-area 12 km to the west	Low/Very Low	Minor/No Effect	No

Effects on Landscape Character during Decommissioning

6.7.122 It is recognised that there would be some additional temporary effects during decommissioning of the Proposed Development, 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 and the adjacent wind farms.

6.7.123 The effects on landscape character would therefore decrease incrementally as decommissioning progresses and as more turbines and associated foundations and hardstanding are removed.

6.7.124 The effects would be similar to those during the construction phase but in reverse.

6.7.125 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 Forestry LCST and the Rolling Moorland LCT 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 minor/no effect** and therefore is not significant. The decommissioning effects would be temporary in nature and are unlikely to all occur at the same time during this phase.

6.7.126 The decommissioning effects of the Proposed Development on landscape character are deemed to be not significant. Once decommissioning is complete, there would be no further effects upon landscape character.

Douglas Valley Special Landscape Area

6.7.127 In order to consider the effects upon the Douglas Valley SLA it is appropriate to consider the various assessments for the relevant identified landscape character types which occur within the SLA, as set out above. This approach is line with the *Validating Local Landscape Designations (VLLD)* report, produced by South Lanarkshire Council (Nov. 2010), which sets out that the various SLA descriptions are based on landscape character and landscape qualities.

6.7.128 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.

6.7.129 The Douglas Valley SLA comprises a number of Landscape Character types as follows:

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

6.7.130 Additionally, the Landscape Character Type LCT 7B, Rolling Moorland Windfarm, was also omitted from the list within the *VLLD*.

6.7.131 *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*."

6.7.132 *VLLD* acknowledges that the Existing Hagshaw Hill Wind Farm 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'*.

6.7.133 It is noteworthy that the boundary of the Douglas Valley SLA as shown on Figure 6.5, incorporates part of the Existing Hagshaw Hill Wind Farm and Extension. 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.

6.7.134 *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*.

6.7.135 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 around 3.8 km from the SLA at its closest point, within the extensive plantation, away from the '*meandering upland river*' landscape which lies at the heart of the SLA, and as such would appear separate to the distinctive pastoral lower-lying landscape of the SLA.

6.7.136 *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 Wes*t. *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 the *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.

6.7.137 The Proposed Development is located 3 km to the north-west of the SLA, in the forested landscape beyond the upper slopes of the SLA landscape. The level of intervisibility between the site and the core lower lying Douglas Water Valley landscape is limited. It is acknowledged that the Proposed Development turbines would be visible from parts of the SLA, but ground level components, including access tracks, crane pads and the substation etc, would be largely screened. It should be noted that the turbines would be located in a landscape further away from the SLA than that which has already been determined to be able to accommodate wind energy development without detrimentally altering the perception or enjoyment of the core SLA landscape. This includes the existing turbines at Nutberry, Hagshaw Hill and Hagshaw Hill Extension, as well as numerous other consented schemes.

6.7.138 In terms of impact on cultural features, it is noted that the Proposed Development only has theoretical visibility from certain more elevated, south-eastern, parts of the grounds of the Douglas Castle, and in practice this is likely to be screened by existing vegetation. Even if glimpsed views were to be available, the Existing Hagshaw Hill, Hagshaw Hill Extension and Hazelside turbines are already visible from Douglas Castle and its grounds, and from the majority of the Douglas Valley, as will be the case for parts of the Douglas West Wind Farm. The Proposed Development would 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.

6.7.139 In terms of the Proposed Development's impact on visitor routes and attractions within the SLA, a detailed assessment of these potential impacts has been undertaken, as set out in paragraph 6.7.126 onwards and it is considered that although the Proposed Development would give rise to some limited worst case **minor** 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 Caste Grounds which, once there, feel quite separate from the upper slopes of the hill ground beyond, and from where there would be little or no visibility of the Proposed Development.

6.7.140 The Proposed Development would also not adversely affect the network of mature policy woodlands and shelterbelts and the high quality water environment within the Douglas Valley, as it is situated over 3 km to the north-west of the SLA in a coniferous plantation that does not form part of the woodland.

6.7.141 Based on the findings of likely effects upon landscape character as set out above, it is assessed that there would be **minor/no effect** on the Douglas Valley SLA (whilst recognising that the effect would be no greater than **minor** effects in some locations and that for much of the SLA there would be no visibility of the turbines and therefore no effect). These effects would not be considered significant.

6.7.142 With the addition of the Douglas West Wind Farm to the current baseline, along with Hagshaw Hill Extension and Hagshaw Hill Repowering, all of which are situated in much closer proximity to the SLA, the Proposed Development would have a barely perceptible additional effect on the SLA and effects would reduce but would remain as **minor/no effect.**

6.7.143 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 be significant nor detrimentally affect the overall quality and perception of the designated landscape area.

Assessment of Visual Effects at Representative Viewpoints

Construction Effects

6.7.144 Beyond the immediate vicinity of the site, ground level activity associated with the turbine construction would not be visible or discernible from the vast majority of the study area due to the screening provided by the coniferous plantation woodland. Therefore, from 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 cranes erecting the turbines and the movement of construction vehicles and deliveries accessing the site along the proposed site access route leading to the site.

6.7.145 The cranes would be visible for a relatively short period and would be incidental when considered in the context of the turbines being erected against the backdrop of the nearby wind farms at Nutberry, Hagshaw Hill, Hagshaw Extension and Galawhistle. It is assessed that any view of such works will be incidental and **not significant**, in relation to the overall effects identified as a result of the Proposed Development.

Operational Effects

6.7.146 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 18 assessment viewpoints agreed with ECU, SLC, EAC and NatureScot.

6.7.147 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.

6.7.148 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.

6.7.149 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.

6.7.150 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 below.

6.7.151 With reference to the Viewpoint Assessment at Appendix 6.3, when considered against the existing baseline it has been assessed that there would be a significant visual effect resulting from the Proposed Development at 4 of the 18 representative viewpoints. These are as follows:

- Viewpoint 1 – Coalburn, Coalburn Road;
- Viewpoint 3 – Lesmahagow, Hill Crest;
- Viewpoint 4 – Minor Road, Brackenridge; and
- Viewpoint 15 – Cairn Table.

6.7.152 When considered against the future baseline it has been assessed that the Proposed Development would only result in a significant effect at Viewpoint 4 – Minor Road, Brackenridge.

Table 6.6 - Summary of Operational Effects on Assessment Viewpoints

				Existing baseline			*Future baseline*		
Name	**Distance to nearest turbine**	**Receptor Type**	**Sensitivity of the Receptor**	**Magnitude of Change**	**Level of Effect**	**Significant**	**Magnitude of Change**	**Level of Effect**	**Significant**
1. Coalburn, Coalburn Road	4.7 km (T20)	Residential	High	Medium	Moderate	Yes	Medium	Moderate	No
		Road users	Medium	Medium	Moderate	No	Medium	Moderate	No
2. M74 Overbridge	7.8 km (T21)	Road users	Medium	Medium	Moderate	No	Low/ Medium	Moderate/ Minor	No
3. Lesmahagow-Hillcrest	6 km (T19)	Residential	High	Medium	Moderate	Yes	Medium	Moderate	No
4. Minor road, Brackenridge	3.6 km (T19)	Residential	High	High	Major	Yes	High	Major	Yes
		Road users	Medium	High	Moderate/ Major	Yes	High	Moderate/ Major	Yes
5. Sandford, School Road	7.7 km (T16)	Residential	High	Very Low	Minor/No Effect	No	Very Low	Minor/No Effect	No
6. Strathaven, War Memorial	10.1 km (T16)	Residential	High	Low	Moderate/ Minor	No	Low	Minor	No
7. A71, bridge crossing Calder Water	10.8 km (T10)	Road users	Medium	Low	Minor	No	Very Low	Minor/ No effect	No
8. Black Hill	10.2 km (T19)	Visitors	High	Low	Minor	No	Low	Minor	No
9. A70 Rigside	11 km (T21)	Residential	High	Medium	Moderate	No	Low	Minor	No
		Road users	Low	Medium	Minor	No	Low	Minor	No
10. Tinto Hill	18.5 km (T21)	Visitors	Very High	Medium	Moderate	No	Low	Moderate/ Minor	No

				Existing baseline			*Future baseline*		
Name	**Distance to nearest turbine**	**Receptor Type**	**Sensitivity of the Receptor**	**Magnitude of Change**	**Level of Effect**	**Significant**	**Magnitude of Change**	**Level of Effect**	**Significant**
11. Douglas-Hill Street	8 km (T21)	Residential	High	Low	Minor	No	Very Low	Minor/No effect	No
12. Auchensaugh hill	10.8 km (T21)	Visitors	High	Low	Minor	No	Very Low	Minor	No
13. Victory Park, Muirkirk	6.8 km (T1)	Visitors	High	Low	Minor	No	Low	Minor	No
14. Nether Wellwood (A70)	11.4 km (T1)	Road users	Low	Medium/Low	Minor	No	Low	Minor/No Effect	No
		Walkers	High	Medium/Low	Moderate/Minor	No	Low	Minor	No
15. Cairn Table	8.3 km (T1)	Walkers	Very High	Medium	Moderate	Yes	Low	Moderate	No
16. Cairn Kinney	11.9 km (T1)	Walkers	High	Medium	Moderate	No	Low	Minor	No
17. Hyndford Bridge	16.2 km (T19)	Road users	Medium	Very Low	Minor/No effect	No	Very Low	Minor/No effect	No
		Pedestrians	High	Low	Minor	No	Very Low	Minor/No effect	No
18. Loudoun Hill	13.5 km (T17)	Visitor	High	Very Low	Minor/No effect	No	Very Low	Minor/No effect	No

Assessment of Effects on Visual Receptor Groups

6.7.153 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.

6.7.154 In this section, the effects of the Proposed Development on various different visual receptor groups are considered.

Construction Effects on Visual Receptor Groups

6.7.155 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.

6.7.156 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 the plantation woodland 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.

6.7.157 As established in the baseline section above, no core paths cross through the main development area within the Proposed Development site, or through the proposed access track development area. Three aspirational core paths (CL/5725/2, CL5724/1 and CL5736/2) cross through the access track development area as illustrated at Figure 6.11. However, as these routes do not cross the main development site and only cross through the access track development area, receptors using these routes which generally follow existing forest tracks would experience a low magnitude of additional effect during the construction phase, over and above the operational phase effects assessed below. This would result in a temporary **minor** additional effect which would not be considered significant. Receptors using the wider network path (CL/5200/1) that also crosses through the access track development area would experience the same level of additional temporary effects during the construction period.

6.7.158 A wider network path (EK/5847/1) passes through the northern edge of the main development area of the site, following the existing track that provides access to Logan Farm near to Logan Reservoir. Turbines 16 and 19 and their associated crane pads are situated close to this track. Turbine 19 is situated on the northern edge of the track and so any receptors using this route would experience views at close range of the construction of the crane pads, foundations and the installation of the turbine. In contrast Turbine 16 is situated a short distance to the south of the track within the forest plantation. As such views of ground-level activities are likely to be largely screened from view by the surrounding trees, with views of construction activities likely to be limited to views cranes during the installation of the turbine.

6.7.159 It is assessed that there would be a worst-case medium to high magnitude of additional effect on this route during construction, over and above the operational phase effects assessed below. This would result in a temporary **moderate** additional effect which would be significant.

6.7.160 In relation to routes beyond the site boundary, views of ground-level construction activities would be screened by the remaining forest plantation and the primary views would relate to the construction of the turbines themselves. The construction of the turbines would be seen in the context of the existing wind energy development in the local landscape, and within a landscape that is subject to temporal change through felling of plantation forestry. Therefore, there would be a medium magnitude of change giving rise to a **moderate** effect which is not significant.

Operational Effects on Visual Receptor Groups

6.7.161 Views of the ground level components of the Proposed Development will be limited to a relatively short radius around the site, largely in an easterly direction. 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

6.7.162 There are 17 properties within 2 km of the proposed turbines, four of which have a financial involvement in the project, one of which is abandoned and no longer in use (Blackhill Cottage) and one of the remaining uninvolved properties is also abandoned (South Cumberhead). The properties are identified and assessed in detail within the Residential Visual Amenity Study (RVAS) presented at Appendix 6.5. The summary table for the 12 remaining properties assessed is included below.

Table 6.7 - Summary of Effects on Residential Properties within 2 km

ID:	Property Name:	Worst-case effect from Within the Property	Worst-case effect from Curtilage	Significant	Overbearing
1, 2	1 and 2, Dunside Waterworks Cottages	Major	Major	**Yes**	No
3	Dunside Reservoir House	Major	Major	**Yes**	No
4, 5	Lower Waterhead Farm & The Old Dairy, Waterhead Farm	Minor	Minor	No	No
6	Cleughhead	Minor	No effect	No	No
7	Halfmerkland	Major	Major	**Yes**	No
8	Birkenhead	Major	Major	**Yes**	No
9	Waterside View	Minor	Minor/No effect	No	No
10	North Bankend	Minor/No effect	Minor/No effect	No	No
11	Todlaw	Moderate	Minor/No effect	No	No.
12	Stockhill Farm	Negligible	Major/moderate	**Yes – from curtilage**	No

6.7.163 The RVAS concludes that in terms of individual properties there would be significant effects experienced at five of the assessed properties, but in each case, residents would not experience such an overbearing effect on visual amenity that any property would become an unattractive place to live or visit.

Settlements between 2 km and 5 km of the Site

Coalburn

6.7.164 Coalburn is situated to the east of the site, with the majority of the properties falling between 4 km and 5 km of the proposed turbines.

6.7.165 Many properties within Coalburn currently experience views which are internally focused within the residential context or are orientated away from the direction of the site and therefore would have no visibility of the Proposed Development. However, there are longer distance westerly views available in the direction of the Proposed Development from the rear aspect of a number of properties along Coalburn Road at the northern edge of the settlement. There are also a number of properties located on Shoulderigg Road, Shoulderigg Place that are orientated towards the site. It is likely that the Proposed Development would be visible from some first floor windows, seen in the landscape to the north-west.

6.7.166 In these views, the Proposed Development will be seen in the context of the existing Nutberry turbines which are partially screened by the coniferous plantation to the west beyond the immediate landscape and the consented Cumberhead and Dalquhandy wind farms once constructed. In the case of the Dalquhandy scheme, the consented turbines will form the primary feature of the view due to their position close to the settlement, 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, resulting in a non-significant effect.

6.7.167 The visualisations for Viewpoint 1 illustrate the view from Coalburn Road, near to Muirburn Place on the northern edge of Coalburn. The properties on Shoulderigg Place can be seen in the near distance of the view and it is considered that the viewpoint represents a 'worst-case' of the clearest views which would be available from the settlement. With reference to these images, it is considered that those residents of the small number of properties in Coalburn that would have open views towards the site would experience a medium magnitude of change and a **moderate** effect that would be significant. However, considered against the future baseline scenario that would include the consented schemes of Dalquhandy close to the settlement and also the Cumberhead wind farm, the Proposed Development would introduce a medium magnitude of change, with effects remaining **moderate** but no longer considered significant. This is because wind energy would already be a further established component of the view from Coalburn in the direction of the site.

Auchlochan

6.7.168 Auchlochan is a retirement village located approximately 5 km to the north-east 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/no effect** and not significant in both existing and future baseline scenarios as the Proposed Development is sited closer to the development than the other consented schemes.

Settlements between 5 km and 10 km of the Site

6.7.169 Notable settlements between 5 km and 10 km of the proposed turbines include Lesmahagow, Douglas, Blackwood/Kirkmuirhall, Stonehouse, Strathaven and Muirkirk. Each are discussed in turn below.

Lesmahagow

6.7.170 Lesmahagow is located approximately 5.6 km to the north-east of the site. The blade tip ZTV (Figure 6.2) indicates that the Proposed Development will only be visible from the southernmost part of the settlement, with the Proposed Development likely to be further screened from this part of the settlement due to intervening vegetation. The proposed turbines would form visible features in the

wider view where available, seen in the same part of the landscape as the existing Nutberry wind turbines. Assessment Viewpoint 3 Figure 6.39 is located on Hillcrest Avenue and the visualisations for the viewpoint provide a good illustration of the views which would be available from the small part of the settlement that would have visibility of the proposals. Considered against the existing baseline the Proposed Development would result in a medium magnitude of change and a **moderate** effect that would be considered significant. However, in the future baseline scenario once the consented Cumberhead Wind Farm was constructed the effects would no longer be considered significant as wind energy would already be a further established component of the view from Lesmahagow in the direction of the site.

Muirkirk

6.7.171 Muirkirk is located approximately 6 km to the south-west of the site within the upper section of the lower lying River Ayr valley. The ZTV at Figure 6.2 indicates that ZTV coverage is largely limited to a small number of the proposed turbines only, due to the screening effect provided by the intervening topography. The visualisations for Viewpoint 13, from Victory Park, show the likely nature of the most open views from within the village.

6.7.172 A number of the proposed turbines would be seen at distance on the skyline to the west of the existing Hagshaw Hill, Hagshaw Hill Extension and Galawhistle turbines. Although the viewpoint photomontage from Victory Park illustrates a high degree of screening, it is acknowledged that this is likely to vary at different points within the settlement. Considered against the existing baseline it is assessed that there would no greater than a low magnitude of change and a **moderate/minor** effect that is not significant. Assessed against the future baseline scenario that would include Hagshaw Hill Repowering and Cumberhead, the overall level of effect would reduce to minor, with effects not considered significant.

Douglas

6.7.173 The village of Douglas is situated around 7.2 km to the south-east of the Proposed Development. The ZTV at Figure 6.2 indicates that there would be limited visibility of the Proposed Development within the village, with views limited to the uppermost sections of the eastern part of the village.

6.7.174 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 a number of properties to experience views towards the opposing hillside of the Douglas Water Valley, particularly from the higher valley slopes to the east of the settlement.

6.7.175 Views from Douglas are represented by Viewpoint 11 Figure 6.47, taken from Hill Street. Considered against the existing baseline scenario receptors in Douglas would experience a low magnitude of change and a **minor** level of effect that would not be significant, with only those receptors towards the eastern edge of the settlement on the higher ground likely to experience such effects. From the majority of the settlement views will be restricted by the built form of the village and to the west by Long Plantation. However, considered against the future baseline scenario that would include the Douglas West wind farm that would appear more prominent in views the magnitude of change would reduce to very low, resulting in minor/no effect, which would not be significant.

Blackwood/Kirkmuirhill

6.7.176 The settlement of Blackwood/Kirkmuirhill is situated approximately 7.5 km to the north-east of the Proposed Development alongside the M74 that borders its western edge. The road corridor is flanked along its eastern edge by significant amounts of roadside vegetation, embankments and acoustic fencing in parts. Where views to the west are available these are likely to be influenced to a greater degree by Auchrobert Wind Farm which is situated to the west.

6.7.177 The ZTV at Figure 6.2 indicates that there would be theoretical visibility from much of the settlement. However, due to the significant amount of additional screening along the road corridor it is considered that the settlements would experience a very low magnitude of change and minor/no effect in both the existing and future baseline scenarios.

Strathaven

6.7.178 The town of Strathaven is situated approximately 10 km to the north north-west of the Proposed Development. The ZTV at Figure 6.2 suggests that the Proposed Development would be theoretically visible from most of the settlement with greater visibility on the higher ground to the north-west of the town and to the immediate south-east towards Avon Water.

6.7.179 Strathaven is a market town situated on the northern banks of Avon Water near to the confluence of Powmillon Burn, Avon Water and Kype Water. It is a nucleated town with many views from within the settlement restricted by the surrounding built form. However, there are views from higher ground to the north-west across the town towards the higher ground of Middle Rig to the south-east of the town and from the south-eastern edge of the town towards the Proposed Development.

6.7.180 Views from Strathaven are represented by Viewpoint 6 Figure 6.42, taken from Strathaven War Memorial which is situated on a man-made mound above the town and therefore represents a 'worse-case' scenario for views from the area, far greater than would be experienced by the majority of residents. Considered against the existing baseline scenario receptors in Strathaven would experience at worst a low magnitude change and **minor** level of effect that would not be significant, with the majority of views screened within the settlement by surrounding buildings, with those receptors towards the south-eastern edge of the settlement only likely to experience such effects. Considered against the future baseline scenario that would include Cumberhead, Hagshaw Hill Repowering and Kype Muir Extension, the magnitude of change would remain as low with effects remaining as **minor** and not significant.

Stonehouse

6.7.181 Stonehouse is situated approximately 9.5 km to the north of the Proposed Development and lies between Strathaven and the M74 along the A71. The ZTV at Figure 6.2 indicates that there would be theoretical visibility from most of the settlement, apart from an area at the southern edge.

6.7.182 The village is situated on the southern side of the Avon Water valley and has seen extensive new housing development around its older centre which is designated as a Conservation Area. To the north-west of the settlement, the area extending down towards Avon Water forms part of the Middle Clyde Valley Special Landscape Area.

6.7.183 Although the ZTV suggests that parts of the settlement would experience views of the Proposed Development, views would be limited to locations along the south-eastern edge of the settlement beyond which lies open countryside. However, the gently undulating landform, pockets of woodland to the south at Dykehead, together with the closer proximity of Auchrobert Wind Farm to the south south-west, coupled with the distance from the site, the Proposed Development would result in a low to very low magnitude of change and **minor/no effects** when considered against the existing baseline, with such effects only experienced from the south-eastern settlement edge. Considered against the future baseline scenario the level of effects would reduce further but would still be considered to be within the **minor/no effect** range. Effects would not be considered significant.

Other smaller settlements within 5 km to 10 km of the Site

New Trows

6.7.184 Situated to the south of Lesmahagow, New Trows is a small linear hamlet situated alongside the road leading south from Lesmahagow towards Coalburn, approximately 5.2 km to the north-east of the Proposed Development. Houses are predominantly set to the western edge of the road, set back on raised ground. To the west of the properties the land rises towards Warlaw Hill at 338 m AOD. The ZTV at Figure 6.2 indicates that there would be theoretical visibility from the hamlet. Figure 6.39 Viewpoint 3 taken from Hillcrest at Lesmahagow provides a useful reference to the nature of view that are likely to be experienced from the settlement.

6.7.185 The proposed turbines would form visible features in the wider view experienced from the settlement, seen in the same part of the landscape as the existing Nutberry wind turbines. Considered against the existing baseline the Proposed Development would result in a medium magnitude of change and a **moderate** effect that would be considered significant. However, in the future baseline scenario, once the consented Cumberhead Wind Farm was constructed, the effects

would no longer be considered significant as wind energy would already be a further established component of the view.

Brocketsbrae

6.7.186 Brocketbrae is a small linear hamlet situated approximately 7.6 km to the north-east of the Proposed Development, to the east of Lesmahagow and the M74 on slightly raised ground with views extending in a westerly direction across the motorway to the distant hills. The ZTV at Figure 6.2 indicates that there would be theoretical visibility from the settlement. Views are likely to be partially filtered by roadside vegetation along the motorway and by vegetation dotted across the rural landscape to the south-west. However, the position of the Proposed Development on higher ground to the south-west means that views from the settlement will be available, but at distance and seen within the context of the existing wind developments in the vicinity. Therefore, considered against the existing baseline receptors would experience a low magnitude of change and a **minor** level of effect that is not considered to be significant. Considered against the future baseline scenario that would include Dalquhandy and Cumberhead, magnitude of change would remain as low, with **minor** effects due to the closer proximity of the Proposed Development to the settlement compared to the other consented schemes. Effects would not be considered significant.

Boghead

6.7.187 Boghead is a small hamlet to the south-west of Kirkmuirhill situated at the junction between the B7086 and Lesmahagow Road. It is a small cluster of properties extending along the road to Lesmahagow and gradually rises in elevation towards the eastern end of the settlement, allowing views south-west across the rolling rural landscape. The ZTV at Figure 6.2 indicates that there would be visibility of the Proposed Development from parts of the settlement. However, vegetation along the western and southern settlement edge and the forest plantation that abuts the south-western corner of the settlement would be likely to screen the majority of views from the settlement.

6.7.188 Considered against the existing baseline which includes the existing Auchrobert Wind Farm to the west, receptors would experience a worst-case low magnitude of change and a **minor** level of effect that is not considered to be significant. Due to the orientation of the settlement in relation to the other consented schemes that would form part of the future baseline, it is considered that this level of **minor** effect would not change.

Sandford

6.7.189 The village of Sandford is situated approximately 1.5 km to the south-east of Strathaven and approximately 8 km to the north north-west of the Proposed Development. It is set within the Kype Water valley that flows to the south of the settlement, beyond which the landform rises towards Middle Rig and Auchrobert Hill and the existing Kype Muir and Auchrobert wind farms that are situated in closer proximity to the Sandford than the Proposed Development. The ZTV at Figure 6.2 indicates that there would be theoretical visibility from the settlement. Views are available in the direction of the Proposed Development, although these are mainly limited to parts of the settlement situated at higher elevation to the north e.g. along School Road. At lower elevations views are partially filtered by the surrounding houses and vegetation along the southern edge of the settlement. With reference to Figure 6.41 Viewpoint 5 Sandford, School Road the viewpoint location is situated approximately 200 m beyond the properties on School Road and is considered to be representative of worst-case southerly views that would be experienced from properties in Sandford. Views of the Proposed Development would be limited to the blade tips of 16 turbines, resulting in no greater than a very low magnitude of change and **minor/no effects** when considered against either the existing or future baseline scenarios.

Glespin

6.7.190 Situated to the south-west of Douglas, Glespin is situated within a linear settlement situated along the A70, to the west of Douglas Water. With reference to The ZTV at Figure 6.2 there is no theoretical visibility predicted. Therefore, the Proposed Development would result in **no effects** on this settlement.

Villages, Towns and other properties beyond 10 km

6.7.191 Beyond 10 km of the Proposed Development turbines, opportunities for clear views of the turbines from built up areas would be increasingly limited and would form an increasingly diminutive and recessive component of the wider views experienced from properties beyond this distance.

6.7.192 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 and west towards Kilmarnock, 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 due to intervening built form and surrounding vegetation.

6.7.193 If views were available, turbines would be no more than incidental features in the distance of wider 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.

6.7.194 It is therefore assessed that beyond 10 km of the turbines, there would be no greater than a **minor** effect on the views from any residential properties and that this level of effect would only 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.

Table 6.8 - Summary of Effects on Settlements

Receptor	Magnitude of Change	Level of Effect	Significant
Settlements between 2 km and 5 km of the Site			
Coalburn			
Baseline	Medium	Moderate	Yes
Future baseline	Medium	Moderate	No
Auchlochan			
Baseline	Low	Minor/No Effects	No
Future baseline	Low	Minor/No Effects	No
Settlements between 5 km and 10 km of the Site			
Lesmahagow			
Baseline	Medium	Moderate	Yes
Future baseline	Medium	Moderate	No
Muirkirk			
Baseline	Low	Moderate/minor	No
Future baseline	Low	Minor	No
Douglas			
Baseline	Low	Minor	No
Future baseline	Very low	Minor/No Effects	No
Blackwood/Kirkmuirhill			
Baseline	Very low	Minor/No Effects	No
Future baseline	Very low	Minor/No Effects	No

Receptor	Magnitude of Change	Level of Effect	Significant
Strathaven			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No
Stonehouse			
Baseline	Low to Very Low	Minor/No Effects	No
Future baseline	Low to Very Low	Minor/No Effects	No
Other Smaller Settlements between 5 km and 10 km of the Site			
New Trows			
Baseline	Medium	Moderate	Yes
Future baseline	Medium	Moderate	No
Brocketsbrae			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No
Boghead			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No
Sandford			
Baseline	Very Low	Minor/No Effects	No
Future baseline	Very Low	Minor/No Effects	No
Glespin			
Baseline	Very Low	No Effects	No
Future baseline	Very Low	No Effects	No
Settlements beyond 10km			
Baseline	Low/Very Low	Minor	No
Future baseline	Low/Very Low	Minor	No

Core Paths

6.7.195 Throughout the 35 km study area as a whole, there are numerous Core Paths, Aspirational Core Paths and Wider Network Paths, some of which pass through the Proposed Development, with further routes passing within close proximity. However, as identified in the baseline the are no core paths that pass through the site.

6.7.196 Aspirational Core Path Dalquhandy dismantled railway (CL/5725/2) and Coalburn Proposed Cycle to Glenbuck (CL/5766/1) cross in a north-south direction through the proposed access track development area, with the Proposed Development turbines situated approximately 3 km to the north-west of the routes. These routes follow a dismantled railway leading to the former opencast workings north of Glenbuck.

6.7.197 From the south, the route passes through the existing Galawhistle Wind Farm with turbines located to either side of the route, with intermittent theoretical visibility of the Proposed Turbines. Further north as the route crosses through the Proposed Development's access track area as it crosses

through Cumberhead Forest, passing in very close to the existing Nutberry wind turbines that are sited adjacent to its western edge. In this part of the route, views will be restricted by the surrounding forest, although it is acknowledged that views may open up according to the felling regime.

6.7.198 Therefore, views and the visual amenity experienced by users of this route are already strongly influenced by wind energy development. Once constructed these routes would also pass in very close proximity to the consented Cumberhead and Dalquhandy schemes. Any available views from these routes would be limited to views of the upper parts of the turbines that would be seen above the landform and intervening forest plantation. Ground-level components would be screened by the surrounding forestry trees, while the access track to the development would be seen as these routes cross. However, the access track follows an existing forest track that also provides access to the Nutberry turbines. Considered against the existing visual baseline the Proposed Development would result in a low magnitude of change and a **minor** effect which is not considered significant. Assessed against the future baseline, the magnitude of change would be very low resulting in **minor/no effect**.

6.7.199 Aspirational Core Path Hagshaw Hill – Arkney Hill (CL/5724/1) branches off the above two routes and continues in an easterly direction along the existing forest track that forms the access route to the Proposed Development and continues to Hagshaw Hill and Arkney Hill. The Proposed Development would be situated over 3 km to the north-east of this path at its closest point, with views only potentially experienced by people walking in a north-westerly direction towards the Proposed Development. The route passes in very close proximity to the existing Hagshaw Hill and Hagshaw Hill Extension Wind Farms that are sited to the immediate south of the route. Furthermore, the existing Nutberry turbines are situated at the western end of the path and the consented Cumberhead turbines are situated along part of the western end of the route.

6.7.200 Therefore, views and the visual amenity experienced by users of this route are already strongly influenced by wind energy development. Any available views from the route would be limited to views of the upper parts of the turbines in westerly views, glimpsed above the intervening landform and forest plantation, with views likely to be very restricted by the surrounding plantation. The path follows the Proposed Development's access track that is an existing forest track that also provides access to the Nutberry turbines. Considered against the existing visual baseline the Proposed Development would result in a low magnitude of change and a **minor** effect which is not considered significant. Assessed against the future baseline that would include the consented Cumberhead and Hagshaw Hill Repowering sited in closer proximity to the route, the magnitude of change resulting from the Proposed Development would be very low resulting in **minor/no effect**.

6.7.201 To the north-east, Aspirational Core Path Dalquhandy (CL/5736/2) crosses through the access track development area at the eastern end of the forest plantation. The route leads west from the dismantled railway and heads in a north-westerly direction through the former opencast working area to the south of Coalburn. Views experienced from the route are already influenced by the proximity of the existing Hagshaw Hill Wind Farm and the heavily modified nature of the former mining area. Situated approximately 5 km to the east of the Proposed Development, views in a westerly direction would be further screened by the coniferous plantation with views limited to the upper parts of turbines appearing above the trees. The path crosses the Proposed Development's access track that is an existing forest track that also provides access to the Nutberry turbines.

6.7.202 Considered against the existing visual baseline the Proposed Development would result in a low magnitude of change and a **minor** effect which is not considered significant. Assessed against the future baseline that would include the Douglas West turbines which would be located to either side of the path, with the Proposed Development sited beyond the consented Cumberhead and Dalquhandy wind farms, the magnitude of change to views from this Aspirational Core Path resulting from the Proposed Development would be very low resulting in **minor/no effect**.

6.7.203 Two wider network paths also cross through parts of the Proposed Development site. South Cumberhead to Hagshaw Hill (CL/5200/1) follows the alignment of the existing forestry access track that would be utilised as part of the access track to the wind farm and passes directly alongside the existing Nutberry Wind Turbines before continuing north towards South Cumberhead. As such views experienced from the path are already strongly influenced by existing wind energy development,

with the adjacent Nutberry turbines being tall, dominant structures in the immediate foreground of views west from the path. The Proposed Development would introduce additional tall vertical elements in westerly views experienced in the northern section of the route near to South Cumberhead, with views limited to towers, hubs and blades experienced in close proximity.

6.7.204 Considered against the existing visual baseline the Proposed Development would introduce in a high to very high magnitude of change, resulting in a **major** effect which is considered significant. With the introduction of the consented Cumberhead Wind Farm to either side of the path in the future baseline, the magnitude of change would reduce to high but the level of effect would remain **major** and significant.

6.7.205 Wider Network path Auchengilloch via Logan Farm (EK/5847/1) passes through the northern part of the main development site following the alignment of the existing access track to Logan Farm and Logan Reservoir. This route would be used as part of the access to Turbine 19 which is sited adjacent to the path. Due to the very close proximity of the path to a commercial turbine, such as the type proposed, the development would have a localised dominating impact on the view, leading to a very high magnitude of change and a **major** and significant visual effect experienced from this path in both the existing and future baseline scenarios. However, such effects would quickly dissipate with increased distance from the Proposed Development.

6.7.206 Core Path (CL/3306/1) – Waterside Bridge – Stockbriggs situated approximately 2.5 km to the north-east of the Proposed Development passes along the eastern edge of Chapelhill Wood on the northern slopes of Tod Law. From the path, walkers will experience intermittent views between retained forest plantation blocks with the turbines seen on the horizon to the south-west with views limited to towers, hubs and blades. Considered against the existing visual baseline the Proposed Development would introduce in a medium magnitude of change, resulting in **moderate** effects which would not be considered significant. With the introduction of the consented Cumberhead Wind Farm in the future baseline, further south than the existing Nutberry turbines, the predicted effects resulting from the Proposed Development would remain the same.

6.7.207 Within the former Dalquhandy Opencast site, there is large cluster of paths/rights of way, including Core Path CL/5192/1-4, CL/5193/1-4 and CL/5190/1 that will fall within the consented Dalquhandy Wind Farm site. These paths are situated over 3 km from the Proposed Development. With reference to Figure 6.37 Viewpoint 1 from Coalburn Road which gives an indication of the potential nature of views from these paths, it is assessed that there would be a worst-case medium magnitude of change, resulting in a **moderate** effect that would not be considered significant, due to the presence of the existing Nutberry turbines. Therefore, the addition of the further turbines associated with the Proposed Development would not appear out of character or out of scale with the turbines present within the view.

6.7.208 Considered against the future baseline scenario that would include the consented Dalquhandy Wind Farm in the immediate foreground that would become the most dominant element in the view and the consented Cumberhead Wind Farm to the west, the magnitude of change resulting from the Proposed Development would reduce to low and the level effect would be **minor** and not significant.

Table 6.9 - Summary of Effects on Core Paths

Core Paths			
Aspirational Core Path Dalquandy dismantled railway (CL/5725/2) and Coalburn Proposed Cycle to Glenbuck (CL/5766/1)			
Baseline	Low	Minor	No
Future baseline	Very Low	Minor/No Effect	No
Aspirational Core Path Hagshaw Hill – Arkney Hill (CL/5724/1)			
Baseline	Low	Minor	No
Future baseline	Very Low	Minor/No Effect	No
Aspirational Core Path Dalquandy (CL/5736/2)			
Baseline	Low	Minor	No
Future baseline	Very Low	Minor/No Effect	No
Wider Network Path South Cumberhead to Hagshaw Hill (CL/5200/1)			
Baseline	High/Very High	Major	Yes
Future baseline	High	Major	Yes
Wider Network path Auchengilloch via Logan Farm (EK/5847/1)			
Baseline	Very High	Major	Yes
Future baseline	Very High	Major	Yes
Core Path (CL/3306/1) – Waterside Bridge – Stockbriggs			
Baseline	Medium	Moderate	No
Future baseline	Medium	Moderate	No
Dalquhandy path cluster (including Core Paths CL/5192/1-4, CL/5193/1-4 and CL/5190/1)			
Baseline	Medium	Moderate	No
Future baseline	Low	Minor	No

Recreational and Long Distance Walking and Cycling Routes

National Cycle Network Route 74

6.7.210 The closest point of National Cycle Network Route 74 to the Proposed Development is approximately 7.5 km to the east as it passes along the B7078 in a northerly direction towards Lesmahagow, running parallel with the M74. With reference to Figure 6.38 Viewpoint 2 M74 Overbridge, the Proposed Development would be visible from parts of the route in views to the west, with some sections screened by woodland and other vegetation in the near landscape. The Proposed Development would be seen in the middle distance in the context of the existing Hagshaw Hill, Hagshaw Hill Extension, Galawhistle and Nutberry.

6.7.211 Considered against the existing visual baseline the Proposed Development will result in a medium magnitude of change to the existing view, introducing additional elements to the view which is already influenced by commercial scale wind energy development, resulting in a **moderate** effect to cyclists that is not considered significant due to the angle of view, which will be experienced intermittently within the context of existing wind energy development that strongly influences the visual character. These effects would be experienced over a limited to the section of the route between junction 11 of the M74 and just south of Auldtonheights.

6.7.212 Considered against the future visual baseline that will include the Douglas West and Dalquhandy schemes that will be situated in much closer proximity to the route, Cumberhead and Kype Muir Extension to the north-west, the Proposed Development would introduce additional elements to the view but these would be experienced in the context of the existing wind energy development that extends across the horizon of the view, reinforcing the existing visual character, resulting in a low/medium magnitude of change and a **moderate/minor** effect that would not be significant.

6.7.213 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 available 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 **minor** effects that are not significant.

River Ayr Way Long Distance Footpath

6.7.214 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 low lying river corridor, ZTV coverage along the route is patchy and intermittent. However, there is a section of the route between Glenbuck and Nether Wellwood where theoretical visibility is predicted, at a distance of 4.5 km to 10 km from the closest proposed turbine. Figure 6.50 Viewpoint 14 Nether Wellwood (A70) and Figure 6.49 Viewpoint 13 Victory Park Muirkirk give an indication of the nature of views that would be experienced as the route passes through this section of the River Ayr valley.

6.7.215 Between the start of the route at Glenbuck and Muirkirk the landscape is generally open allowing views towards the existing wind turbines at Galawhistle and Hagshaw Hill. Over this section of the route the Proposed Development turbines would visible but would be partly screened by the intervening landform of Hare Craig and Priesthill Height, situated to the immediate south-west of the Proposed Development, with further screening provided by the existing coniferous plantation. As the route continues south-west from Crossflatt to Kames the route rises in elevation on the southern valley side towards Upper Wellwood and Nether Wellwood. However, views are intermittently screened by intervening landform and tree belts in the immediate foreground.

6.7.216 Considered against the existing visual baseline the Proposed Development will result in a low magnitude of change to the existing view, introducing some additional elements to the view which is already influenced by commercial scale wind energy development, resulting in a **minor** effect that is not considered significant. Such effects would remain in the future baseline scenario which would also include the consented Hagshaw Hill Repowering, Cumberhead and the Kennoxhead scheme to the east of the route.

Table 6.10 Summary of effects on Recreational Walking and Cycling Routes

Recreational and Long Distance Walking and Cycling Routes			
National Cycle Network Route 74			
Baseline	Medium	Moderate	No
Future baseline	Low/Medium	Moderate/Minor	No
River Ayr Way Long Distance Footpath			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No

Roads

M74

6.7.217 The ZTV at Figure 6.2 indicates that there would be almost continuous theoretical visibility of the Proposed Development between junctions 10 and 12 of the M74, with intermittent, patchy visibility between junctions 12 and 13, and junctions 8 and 9, with the Proposed Development seen in the landscape to the west of the route, at a distance of approximately over 7 km at its closest point.

6.7.218 From Junction 12 views north-westwards towards the site are partially restricted by intervening roadside vegetation. Shortly after passing Junction 12 views open up and the existing Hagshaw Hill and Hagshaw Hill Extension turbines can be seen on the westerly horizon to the view, before being screened by Happendon Wood and roadside cuttings. Past the M74 Overbridge at Nether Fauldhouse, as illustrated at Figure 6.38 Viewpoint 2, westerly views once again open up with views of the existing Nutberry, Auchrobert and Birkill turbines available.

6.7.219 Between Junctions 11 and 10 views would be available intermittently, with sections affording relatively open views in a westerly direction towards the Proposed Development and views restricted by roadside vegetation and road cuttings in places. People travelling along the motorway would have fleeting glimpses of the Proposed Development that would be experienced whilst travelling at typical motorway speeds. Considered against the existing visual baseline road users would experience no greater than a medium magnitude of change and a **moderate** level of effect that would not be considered significant.

6.7.220 Considered against the future visual baseline that will include the Douglas West and Dalquhandy schemes that will be situated in much closer proximity to the motorway, Cumberhead and Kype Muir Extension to the north-west, as well as the consented Broken Cross Wind Farm situated next to the eastern edge of the motorway, the Proposed Development would result in no greater than a low/medium magnitude of change and **moderate/minor** effects that would not be significant. Beyond Junction 10 the Proposed Development will be behind the direction of travel and so the Proposed Development will not generally be seen.

A70

6.7.221 The Proposed Development would be visible to varying degrees along parts of the route between Hynford Bridge in the north-west and Cumnock in the south-west. The ZTV at Figure 6.2 illustrates the extent of theoretical visibility along the route, with clear areas of no visibility between Glenbuck and Douglas, and further afield at Carbellow. Viewpoints 9, 13, 14 and 17 illustrate the nature of views that will be experienced from the road.

6.7.222 Travelling in a north-easterly direction between Carbellow, north-east of Cumnock and Nether Wellwood the Proposed Development turbines would be visible intermittently on the distant hills, seen above the horizon and at an oblique angle to the road. At distances of approximately 12 km the turbines would form small elements and occupy a small proportion of the view, as illustrated by Viewpoint 14, resulting in no more than a very low magnitude of change and **minor/no effects** rising to no greater than a low medium magnitude of change and minor effects towards Nether Wellwood in both the existing baseline scenario, with the magnitude of change becoming low, resulting in minor effects in the future baseline scenario.

6.7.223 Between Nether Wellwood and Glenbuck the ZTV indicates that there would be theoretical visibility of the Proposed Development. However, the intervening built form through Muirkirk would largely restrict views of the turbines. The existing Galawhistle, Hagshaw Hill, Hagshaw Hill Extension and Nutberry turbines are visible on the hills to the north-east of the route at points along this section. Where available the Proposed Development turbines would be largely screened by landform, with views generally limited to blade tips, with some turbines screened entirely, as illustrated by Viewpoint 13 which is taken from higher ground within Muirkirk, resulting in no greater than a low magnitude of change and **minor** effects in both the existing and future baseline scenarios.

6.7.224 With reference to the ZTV at Figure 6.2 between Glenbuck and Douglas there is hardly any theoretical visibility of the Proposed Development with only two very minor points near Glenbuck Home Farm and Monksfoot. However, for the remainder of this section there is no predicted

visibility. Beyond Douglas the Proposed Development will be behind the direction of travel and so road users are unlikely to experience any effects.

6.7.225 Travelling in a south-westerly direction between Hynford Bridge (Viewpoint 17) that is situated approximately 16 km from the nearest turbine views are largely characterised by the gently rolling pastoral landscape with occassional woodland blocks and intermittent views towards the distant hills and existing wind development at Hagshaw Hill, Galawhistle and Nutberry.

6.7.226 There is almost continuous predicted visibility between Hynford Bridge and Rigside. Over this section of the route, the road gradually climbs towards Stone Hill, then falls approaching Rigside. Wind energy development forms an existing component of the view, seen at an oblique angle to the road on the distant hills that form the backdrop to the view, with road users likely to experience transient glimpsed views that will be occasionally screened by landform and tree blocks, resulting in no more than a very low magnitude of change and **minor/no effect** in both the current and future/baseline scenarios, with the level of effect gradually increasing as road users approach Rigside.

6.7.227 At Rigside the Proposed Development would be visible in the distance with turbine towers, hubs and blades seen on the skyline but in the context of existing wind development at Nutberry, Galawhistle , Hagshaw Hill, Hagshaw Hill Extension, Auchrobert, resulting in a medium magnitude of change and **minor** effects, with effects remaining minor in the future baseline scenario that would include the Dalquhandy, Douglas West and Broken Cross wind farms.

6.7.228 To the south-west of Rigside, although the ZTV indicates theoretical visibility, views become increasingly intermittent and screened by roadside vegetation to the north of the road, as it falls in elevation towards the M74, where Happendon Wood filters views of the Proposed Development.

6.7.229 To the south-west of the M74 predicted visibility of the Proposed Development extends between the roundabout at the foot of the off ramp of Junction 12 and Douglas. However, over this section the existing coniferous plantation to the north-west at Long Plantation would largely screen views of the Proposed Development, leading to a very low magnitude of change and minor/no effects. Effects would reduce further in the future baseline scenario as the Douglas West Wind Farm, that is currently being constructed, is situated in closer proximity to the road.

6.7.230 To the south-west of Douglas, the Proposed Development will be behind the direction of travel and so road users are unlikely to experience any effects. None of effects experienced by users of the A70 would be significant.

A71

6.7.231 The A71 is situated to the north-west of the Proposed Development at distances of 10 km and greater. Whilst the ZTVs suggest that the turbines would be visible in theory from sections of the road between Loudon Hill (Viewpoint 18) and Drumclog, between Rylandside and Strathaven and to the north-east of Strathaven, at such distances opportunities for clear views of the turbines whilst travelling either in a north-easterly direction towards Strathaven and the M74, or in a south-westerly direction towards Darvel would be very limited. The closer proximity of the existing Kype Muir, Auchrobert and Dungavel wind farms would mean that the Proposed Development would be a diminutive and recessive component of the wider views experienced from the road.

6.7.232 Where views are available from the road, the Proposed Development turbines would be no more than incidental features in the distance of wider views that include existing wind farm development and 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 road.

6.7.233 Therefore, it is assessed that there would be no greater than a **minor** to **minor/no effect** on southerly views experienced by road users. Due to the orientation of the road in relation to the other consented schemes in the vicinity of the Proposed Development, these levels of effect would remain in the future baseline scenario.

B7078

6.7.234 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.

6.7.235 Travelling in a northerly direction, despite the theoretical visibility indicated on the ZTV at Figure 6.2, roadside woodland belts would largely screen any view of the turbines as far as Junction 11 with the exception of a short length of road in the vicinity of the A70 junction from which there would be filtered views back across the M74, from where the turbines would be a briefly 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 situated due west and perpendicular to the road.

6.7.236 This section of the road is more open with views in a westerly direction towards the distant hills which form the backdrop to the view, as broadly represented at Figure 6.38 Viewpoint 2 M74 Overbridge. Existing wind energy developments at Hagshaw Hill Extension, Galawhistle and Nutberry visible, together with the operational turbines at Birkhill situated to the immediate east of the road. The more distant Kype Muir and Auchrobert turbines can also be seen to the north-west.

6.7.237 The Proposed Development turbines would introduce a medium magnitude of change that would be experienced intermittently by road users travelling along this section of road and would result in a **moderate** level of effect that would not be considered significant. Considered against the future baseline scenario that would include the consented Dalquhandy and Broken Cross schemes in close proximity to the road, Cumberhead to the west and the more distant Kype Muir Extension the magnitude of change experienced by road users would reduce to low/medium, with effects assessed as **moderate/minor** and not significant.

6.7.238 As road users continue northwards towards Lesmahagow the Proposed Development would move to the rear of the direction of travel and so road users would be unlikely to experience any effects from Lesmahagow northwards. Road users travelling in a southerly direction would experience the same effects.

B7018

6.7.239 The B7018 is situated to the north-east of the site and to the east of the M74. The road leads north north-eastwards from Lesmahagow towards Kirkfieldbank. With reference to the ZTV at Figure 6.2 approximately the northern half of the route lies outside of the area of predicted visibility and so road users will experience no effects. The Proposed Development is theoretically visible from the southern half of the route as it descends Dillar Hill and continues south towards Brocketsbrae. Long-range views are available in a south-westerly direction with views partially filtered by roadside vegetation. However, the position of the Proposed Development on higher ground to the south-west coupled with the elevation of the road means that views will be available, but at distance of over 7 km, with views of the Proposed Development seen within the context of the existing wind developments in the vicinity.

6.7.240 Considered against the existing baseline road users would experience no greater than a low magnitude of change and a **minor** level of effect that is not considered to be significant. Such effects would be experienced over approximately 3 km of the road and only by those receptors travelling in a southerly direction.

6.7.241 Effects would remain the same in the future baseline scenario that would include Dalquhandy and Cumberhead due to the closer proximity of the Proposed Development to the route compared to the other consented schemes.

B7055

6.7.242 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 **minor** effect. This would not be significant due to

the distance in which the turbines will be seen, and the context of the baseline view. Effects would remain the same in the future baseline scenario due to the position of the consented schemes in the view relative to the Proposed Development.

B7086

6.7.243 The B7086 leads south-eastwards from Strathaven, crossing Avon Water and passing Sandford. It then continues in a broadly easterly direction towards Kirkmuirhill. With reference to the ZTV at Figure 6.2 there is theoretical visibility for a very short section of the road between the southern edge of Strathaven and Avon Water at a distance of approximately 9 km to the north of the proposed turbines. Between Avon Water and Sandford there is no predicted visibility for a distance of approximately 2 km. From Castlebrocket there is theoretical visibility for the vast majority of the remainder of the route as it heads east towards Kirkmuirhill.

6.7.244 Existing wind energy development is an established component of southerly views from the road, with the existing Kype Muir and Auchrobert wind farms situated approximately 2.5 km to the south of the road. The Proposed Development will be sited to the south of these existing wind farms and so will not introduce new features into the view and will only increase the concentration of wind development already present within the view. Views from the road will be partially filtered by intermittent vegetation, seen perpendicular to the south of the road, with views influenced to a greater degree by the closer proximity to Kype Muir and Auchrobert wind farms.

6.7.245 Considered against the existing baseline the Proposed Development would result in no greater low magnitude of change to road user views and a **minor** level of effect that would not be considered significant. Assessed against the future baseline scenario, the effects would remain the same because the additional consented schemes are situated further south than the Proposed Development and so the change in the view would be very similar.

B743

6.7.246 The B743 links Muirkirk in the south, with Strathaven in the north. The road passes through an upland valley between Dungavel Hill and Millstone Rig to the east and Mill Rig, Bibbion Hill and Middlefield Law to the west. With reference to the ZTV at Figure 6.2 there is very limited theoretical visibility from much of the route due to the intervening landform. There are short sections of theoretical visibility as the road heads north out of Muirkirk and crosses Greenock Bridge, at West Cauldcoats and to the north of Avon Water as the road approaches the edge of Strathaven.

6.7.247 At the southern end of the route, north of Muirkirk the Proposed Development is situated approximately 4 km to the north-east of the road. Over this section, easterly views from the road are across the smooth, rounded form of Starpet Rig which comprise open moorland and views of the Proposed Development would result in no greater than a medium magnitude of change and a **moderate** level of effect that would not be considered significant due to the orientation of the view in relation to the direction of travel. Once the consented Cumberhead Wind Farm is constructed effects would reduce to a low/medium magnitude of change a minor level of effect.

6.7.248 At the northern end of the road where there is predicted visibility near to the southern edge of Strathaven, the Proposed Development is over 9 km to the south, situated beyond the existing Kype Muir and Auchrobert wind farms. Due to the distance from the site, there would be no greater than a low magnitude of change, tending towards a very low magnitude of change on views from the road, with no greater than a **minor** effect on southerly views experienced by road users. Due to the orientation of the road in relation to the other consented schemes in the vicinity of the Proposed Development, these levels of effect would remain in the future baseline scenario.

Table 6.11 Summary of effects on Roads

Roads			
M74 (Junctions 10 to 12)			
Baseline	Medium	Moderate	No
Future baseline	Low/Medium	Moderate/Minor	No
A70 – Travelling north-eastwards - Carbellow to Nether Wellwood			
Baseline	Low/Medium	Minor	No
Future baseline	Low/Medium	Minor	No
A70 – Travelling north-eastwards - Nether Wellwood to Glenbuck			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No
A70 – Travelling south-westwards – Hynford Bridge to Rigside			
Baseline	Very Low	Minor/No Effect	No
Future baseline	Very Low	Minor/No Effect	No
A70 – Travelling south-westwards – Rigside			
Baseline	Medium	Minor	No
Future baseline	Medium	Minor	No
A70 – Travelling south-westwards – Rigside to M74			
Baseline	Medium	Minor	No
Future baseline	Medium	Minor	No
A70 – Travelling south-westwards – M74 to Douglas			
Baseline	Very Low	Minor/No Effect	No
Future baseline	Very Low	Minor/No Effect	No
A71			
Baseline	Low/Very Low	Minor/ Minor/No Effect	No
Future baseline	Low/Very Low	Minor/ Minor/No Effect	No
B7078			
Baseline	Medium	Moderate	No
Future baseline	Low/Medium	Moderate/Minor	No
B7018			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No
B7055			
Baseline	Medium	Minor	No
Future baseline	Medium	Minor	No

B7086			
Baseline	Low	Minor	No
Future baseline	Low	Minor	No
B743 north of Muirkirk			
Baseline	Medium	Moderate	No
Future baseline	Low/Medium	Minor	No
B743 south of Strathaven			
Baseline	Low/Very Low	Minor	No
Future baseline	Low/Very Low	Minor	No

Centres of Recreational and Tourism Activity

Douglas Valley and Douglas Castle (Castle Dangerous)

6.7.249 With reference to the ZTV at Figure 6.2, theoretical visibility within the Douglas Valley is limited to areas of higher ground on the western and eastern valley sides, with visibility of between 1 and 5 turbines predicted in the location of the tower ruin and the area immediately to its south-east and no visibility predicted in the location of the monument.

6.7.250 The existing Hagshaw Hill, Hagshaw Hill Extension and Galawhistle wind farms are present in westerly views from the policy grounds with towers, hubs and blades seen above Long Plantation on the western valley side. In time, the Douglas West scheme would also be seen above Long Plantation in westerly views.

6.7.251 Receptors are unlikely to experience views of the proposed turbines in the immediate area around the castle ruin due to the band of trees to its north-west that in addition to Long Plantation, on the western valley side, is likely to screen views. The Monument is situated within a part of the valley where no visibility is predicted.

6.7.252 However, it is acknowledged that within other parts of the wider grounds and valley, views of the Proposed Development maybe possible. In such locations views would be limited to the blade tips of the proposed turbines seen on the horizon, above Long Plantation, in the same part of the view as the Existing Hagshaw Hill and Hagshaw Hill Extension wind farms. Although the Proposed Development turbines are taller than the existing wind turbines, they are set much further west than existing turbines that are already present within the view.

6.7.253 Visitors to the ruins of Douglas Castle, its grounds and the wider Douglas Valley are of high sensitivity to change. The addition of the proposed turbines would result in no greater than a low magnitude of change in the view and a worst case **minor** effect that would not be considered significant. These effects would only be experienced from certain parts of the Castle Grounds where the proposed turbines are visible. Considered against the future baseline scenario that would include the Douglas West wind farm in closer proximity, the magnitude of change would reduce to very low and the level of effect would also reduce to **minor/no effect**.

6.7.254 The Proposed Development 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 valley slopes beyond.

Former Dalquhandy Opencast Mine

6.7.255 The adjacent part of the former Dalquhandy Opencast Mine has also been opened up to public access and is well used by 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 (consented 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.

6.7.256 From within the former opencast mine, it will be possible to see the Proposed Development but it would be seen the context of the Existing Hagshaw Hill and Hagshaw Hill Extension turbines beyond, alongside the Nutberry and Galawhistle Wind Farms. There will also be numerous turbines in the immediate foreground following construction of Douglas West and Dalquhandy wind farms.

6.7.257 In its current form, the former mine is of low sensitivity to change due its current state of restoration. 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** and the effect is not considered to be significant. Considered against the future baseline scenario that would include the Douglas West scheme (now under construction) and the consented Dalquhandy Wind Farm, the magnitude of change would reduce to low with a **minor** level of effect.

Table 6.12 Summary of effects on Centres of Recreational and Tourism Activity

Centres of Recreational and Tourism Activity			
Douglas Valley and Douglas Castle (Castle Dangerous)			
Baseline	Low	Minor	No
Future baseline	Very Low	Minor/No Effect	No
Former Dalquhandy Opencast Mine			
Baseline	Medium	Moderate	No
Future baseline	Low	Minor	No

Visual Effects during Decommissioning

6.7.258 It is recognised that there would be some additional temporary effects during decommissioning of the turbines 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.

6.7.259 The effects on visual amenity would therefore decrease incrementally as decommissioning progresses and as more turbines and associated foundations and hardstanding are removed. Users of the Paths mentioned above which pass through the site, and within close proximity to the proposed turbines, 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.

6.7.260 The effects would be similar to those during the construction phase but in reverse.

6.7.261 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.

6.7.262 The decommissioning effects of the Proposed 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 wind energy is a firmly established feature of the local landscape to the site, with the nearby Hagshaw Hill Wind Farm established in 1995 and numerous other wind farm developments being constructed since. 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 wider 'Hagshaw Cluster' creates a great opportunity to develop further renewable energy development with minimised impacts on sensitive landscape features and again making use of existing 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 NatureScot 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 and seeking to maximise renewable generation and carbon reduction from an established wind farm landscape.

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 Appropriate offsets from all properties and settlements, out with the control of the Applicant or other involved landowner, have been maintained to ensure that no property would experience an overbearing visual impact such that it became an unattractive place to live. This has been a particular consideration in relation to the residential properties to the north-east of the site and the part of the landscape in this area, as represented by Viewpoint 4 – Minor Road, Brackenridge. The design has been amended during the design iteration process to increase the distance between the turbines and uninvolved properties in this part of the landscape, thereby reducing the potential visual effect on this area.

6.8.7 Mitigation of visible turbine lighting has been embedded into the design of the scheme to reduce the intensity of lighting in certain atmospheric conditions by reducing the intensity and shielding the amount of vertical downwards lighting in order to reduce the visual impact experienced by receptors below the lights.

6.8.8 Visibility sensors will be installed on relevant turbines to measure the prevailing atmospheric conditions and visibility range. Should atmospheric conditions mean that visibility from the turbines within the site is greater than 5 km from the Proposed Development, CAA policy permits lights to operate in a lower intensity mode, being a minimum of 10% of their capable illumination. Therefore,

the 2000 cd steady state lights would operate at 200 cd. However, if visibility is restricted to 5 km or less, the lights would operate at 2,000 cd.

6.8.9 Additionally, the inherent directional intensity of 2,000 candela lights can be used to reduce vertical downwards lighting impacts at elevations less than -1° degree vertical angle from the horizontal plane from the aviation light. By installing lights that comply with the ICAO recommendations, it is possible to attenuate the vertical downwards light to a level that reduces the visual impact from receptors at ground levels below the lights. Implementing the ICAO recommendations, at -1 degrees the aviation lights should only be 1,125 cd and at -10 degrees should only be 75cd, when visibility is greater than 5 km.

6.8.10 These measures are proposed as embedded mitigation. They are likely to reduce the magnitude of landscape and visual effects particularly for distant receptors; however, this feature will not remove visibility of aviation lighting completely for any nearby receptors.

6.8.11 The alignment of the Proposed Development turbines with other operational and consented turbines including the adjacent Cumberhead Wind Farm, Dalquhandy Wind Farm, and Nutberry Wind Farm, ensures that the Proposed Development would appear as part of an agreeable overall array in key views.

6.8.12 Taking all other engineering and environmental constraints into account, the final layout of the turbines on site was specifically designed to achieve a balanced array of turbines when viewed from the surrounding areas in conjunction with the existing and recently consented wind farm developments.

6.8.13 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, using the existing access road within the Douglas West Wind Farm site and its connection to junction 11 of the M74.

6.8.14 The turbines themselves would be painted semi-matt white or light grey with a low reflectivity 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.

6.8.15 In order to offset some of the effects of the Proposed Development investment is proposed in ecological and habitat enhancements across the local landscape (to be secured through planning conditions and/or legal agreements as necessary). During its period of operation, the Proposed Development access tracks will be open for non-motorised public access and will provide a greater network of paths in the local area. These new tracks will also connect with both the rest of the 'Hagshaw Cluster' to allow a great diversity in route options across the local landscape. There are also wider proposals to being consulted upon with the local community regarding the use of community benefit funds from local wind farms (including the Proposed Development) to develop an adventure tourism hub at Junction 11 of the M74.

6.8.16 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.

6.10 Cumulative Assessment

Introduction

6.10.1 For the cumulative assessment, consideration was initially given to a 60 km radius from the site, as recommended by NatureScot best practice guidance. Following this, 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 baseline. The sites identified are shown in Figures 6.25 and 6.26.

6.10.2 It is acknowledged that this cumulative situation is constantly changing and therefore the 1st October 2020 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 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*.

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. It was 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 15 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 all turbines under 50 m height. In addition, only turbines above 80 m in height are considered in the landscape beyond 10 km from the site. This cumulative impact assessment therefore focuses primarily on those schemes within approximately 15 km of the Proposed Development.

6.10.5 The wind farms identified within **Table 6.13** are therefore the schemes on which the discussion of the cumulative landscape and visual impact effects are focussed.

Table 6.13: Other Wind Farms Considered in Detail in the Cumulative LVIA

Site	Blade tip height of turbines	Number of turbines
Operational		
Andershaw	125 m	14
Auchren Farm	66.6 m	1
Auchrobert	132 m	12
Bankend Rig	76 m	11
Birkhill (Harbro)	99.5 m	2
Dungavel	101.2 + 121.2 m	14 (4 x 121 m; 9 x 101 m)
Eastertown	74 m	3
Galawhistle	121.2 m +110.2 m	4 + 18
Hagshaw Hill	55 m	26
Hagshaw Hill Extension	80 m	20

Site	Blade tip height of turbines	Number of turbines
Hazelside Farm	74 m	1 operational, 1 to be constructed
JJ Farm Turbine	102 m	1
Kype Muir	132 m	26
Letham Farm	51 m	1
Lochhead	100 m	5
Low Whiteside Farm	54 m	1
Middle Muir	136 m +152 m	8 + 7
Nether Fauldhouse	78 m	1
Nutberry	125 m	6
Yonderton Farm	51 m	1
Consented/ Under Construction		
Bankend Rig II	126.5 m	3
Broken Cross – revised scheme	149.9 m	10
Broken Cross (small turbines)	55.7m	2
Cumberhead - revised scheme	149.9 m / 180 m	14 (12 x 149.9; 2 x 180m)
Dalquhandy – revised scheme	131 m / 149.9 m	15 (4 x 131m; 11 x 149.9m)
Douglas West	149.9 m	13
Hagshaw Hill Repowering	200 m	14
Kennoxhead - revised scheme	180 m	19
Kype Muir Extension – revised scheme	156 m, 176 m, 200 m + 220 m	15 (4 x 156 m; 3 x 176 m, 3 x 200 m + 4 x 220 m)
M74 Eco-Park	98.2 m	2
Penbreck	125 m	9
In Planning		
Douglas West Extension	200 m	13
Glentaggart	132 m	5
Hare Craig	149.9 m / 200 m/ 230 m	8 (230 m x 2; 200 m x 5; 149.9 m x 1)
Kennoxhead Extension	180	8

NB - It is noted that the Hagshaw Hill Repowering will replace the existing operational Hagshaw Hill Wind Farm following its construction

6.10.6 The methodology adopted in the main LVIA, was to provide a consideration of two different scenarios. Firstly, a consideration is given to the addition of the Proposed Development to the current baseline landscape (i.e. including all operational/built wind farms but excluding any consented schemes which are yet to be constructed, or any planning application stage schemes). Secondly, consideration is then given to the addition of the Proposed Development to the 'future baseline' landscape (i.e. including all operational/built wind farms, and also including any consented schemes which are yet to be constructed but excluding any planning application stage schemes).

6.10.7 In effect, consideration of one of the two scenarios from the cumulative impact assessment has therefore been brought forward into the main assessment. The purpose of this cumulative impact assessment is therefore to consider the additional effects that might arise as a result of the Proposed

Development if other in planning (awaiting determination) schemes were also operational. Not all other schemes that are in planning may be approved and constructed. However, by assuming all proposed schemes will go on to become operational it therefore presents the 'worst case' scenario for assessment purposes.

6.10.8 A separate consideration is also then provided of the overall totality of the cumulative effect that would arise from all of the schemes in combination.

Cumulative ZTVs, Wireframes and Photomontages

6.10.9 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.

6.10.10 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.

6.10.11 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 that form part of the visualisations at Figures 6.37 to 6.54, include all sites within the study area for completeness.

Cumulative ZTVs with Operational Schemes

- Cumulative ZTV with Nutberry, Galawhistle, Hagshaw Hill, Hagshaw Hill Extension, Hazelside Farm (Figure 6.27);
- Cumulative ZTV with Auchrobert, Kype Muir, Dungavel and Bankend Rig, (Figure 6.28);
- Cumulative ZTV with Birkhill (Harbro), Auchren Farm, JJ Farm Turbine, Nether Fauldhouse, Letham Farm, Low Whiteside Farm, Yonderton Farm, Lochhead and Eastertown (Figure 6.29); and
- Cumulative ZTV with Middlemuir and Andershaw (Figure 6.30).

Cumulative ZTVs with Consented Schemes

- Cumulative ZTV with Cumberhead, Dalquhandy, Douglas West and Repowered Hagshaw Hill (Figure 6.31);
- Cumulative ZTV with Broken Cross, Broken Cross (small turbines) and M74 Eco-Park (Figure 6.32);
- Cumulative ZTV with Kype Muir Extension and Bankend Rig II (Figure 6.33); and
- Cumulative ZTV with Penbreck and Kennoxhead (Figure 6.34).

Cumulative ZTVs with Application Stage Schemes

- Cumulative ZTV with Douglas West Extension and Hare Craig (Figure 6.35); and
- Cumulative ZTV with Glentaggart and Kennoxhead Extension (Figure 6.36)

Cumulative Effects on Landscape Character

Effects of the Cumulative Scenario including the operational, consented and proposed schemes on Landscape Character

6.10.13 The majority of other cumulative sites in the vicinity of the development are already operational or consented and therefore have already been considered in the earlier assessment work. However, it is noted that there are four further schemes which are at application stage and therefore relevant to this additional cumulative assessment work. These are as follows: Hare Craig – which is located immediately adjacent to the south-west of the site, across the local authority boundary into East Ayrshire; Douglas West Extension - which lies to the south-east of the site, as part of the wider Hagshaw Cluster in which the Proposed Development is located; Kennoxhead Extension – which lies across the Douglas Water Valley to the south of the site and which would lie immediately to the north of the existing Kennoxhead Wind farm; and Glentaggart which would lie as a northly extension to the Andershaw Wind farm, also across the Douglas Water Valley to the south-east of the site.

6.10.14 As noted previously, 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. Therefore, in the scenario where these four additional schemes were already present in the baseline landscape, it would be generally expected that the potential for the Proposed Development to bring about effects on landscape character would be reduced. In this case, two of the proposed schemes (Kennoxhead Extension and Glentaggart) lie adjacent to existing or consented wind energy developments at a distance of over 8 km from the site and beyond several other operational and consented schemes which lie between them and the site. Therefore, the addition of these further schemes would largely serve to consolidate the existing effect of wind energy already brought about, rather than resulting in notable additional effects in their own right. As such, their addition to the baseline would not result in any change to the assessment of landscape character effects already set out.

6.10.15 The Douglas West Extension would also be located in the vicinity of a number of other operational or consented wind energy schemes which have already been considered in the main assessment. However, its addition to the baseline landscape would be of greater relevance because it would form a further scheme of 200m high turbines in the local area, serving to make turbines of this scale an even more familiar characteristic of this part of the landscape. In this context, the impact on the landscape character of the local area brought about by the Proposed Development would be reduced, as it would be forming part of a further established cluster of large-scale wind energy development. However, there would be no change to the future baseline assessment judgements already set out in the landscape character section.

6.10.16 The Hare Craig proposal lies immediately adjacent to the Proposed Development and therefore its presence in the baseline would have the most notable change to the landscape context of the application stage schemes in the study area. In particular it would firmly establish the presence of 200m + turbines in the immediate vicinity of the site. For those landscape character types in the vicinity of the of the Hare Craig scheme, there would clearly be a notable reduction in the effects that the Proposed Development would bring about should Hare Craig already be in the landscape. This includes East Ayrshire LCT 18a Plateau Moorlands sub area to the south-west at Starpet Rig and Sclanor Hill where the effect would reduce from moderate and significant to moderate minor and not significant.

Overall Combined Effect of all operational, consented and proposed schemes

6.10.17 When the effects of the Proposed Development in combination with all operational, consented and proposed schemes in totality is considered, it is clear that there would be notable effects on landscape character brought about across much of the local landscape. Indeed, the landscape in the vicinity of the site is one which, with reference to the typologies referred to in the Landscape Capacity Study, would represent a 'wind turbine landscape'. This area could be considered to extend across much of the rolling moorland landscape (LCTs 7, 7A and 7B) as well as the adjacent Plateau Moorlands. However, due to the location of the Proposed Development adjacent to a large number of other operational and consented schemes, this 'wind turbine landscape' would already arise, irrespective of the addition of the Proposed Development. In that regard, the Proposed Development would largely serve to consolidate the existing effects on landscape character that would be already brought about by other schemes. Noting the former opencast mining use of much of this area, this would largely represent the transition from the impacts of one means of energy generation to another within this productive landscape.

Cumulative Effects on Visual Amenity

Effects of the Cumulative Scenario including the operational, consented and proposed schemes on visual amenity

6.10.18 As with the cumulative landscape character effects discussed above, 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. 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. Considered in this context, the additional effects arising as a result of introducing the Proposed Development into the scenario whereby the application schemes were also in the baseline, would typically be less significant than the effects reported earlier in the main assessment.

Cumulative 'in combination' visual effects

6.10.19 An 'In combination' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms, in addition to the Proposed Development, whilst standing in the one location. These effects are either 'simultaneous', where the viewer can see the

additional turbines in the same angle of view, or 'successive', where the view can see the additional turbines in a different angle of view by turning their head.

6.10.20 Through analysis of the cumulative ZTVs and the visualisations provided for each of the assessment viewpoints, a few basic observations can be made regarding the extent to which the four application stage schemes would be visible in relation to the Proposed Development.

6.10.21 Firstly, as noted above in relation to the potential effects on landscape character, the schemes at Glentaggart and Kennoxhead Extension would lie adjacent to existing or consented wind energy developments at a distance of over 8 km from the Proposed Development and beyond several other operational and consented schemes which lie between them and the site. As such, the addition of these to the baseline view would make no material difference to the assessment of visual effects already set out. The schemes would simply serve to consolidate the existing wind energy infrastructure in that part of the landscape to the south of the Douglas Water Valley.

6.10.22 The Douglas West Extension would also be located in the vicinity of a number of other operational or consented wind energy schemes which have already been considered in the main assessment. However, its addition to the baseline landscape would be apparent in the view from a number of the assessment viewpoints, most notably Viewpoint 11 Douglas, Hill Street, Viewpoint 1 Coalburn, Coalburn Road and Viewpoint 2 M74 Overbridge providing a further precedent for views of turbines which are 200m. Nonetheless, whilst the Douglas West Extension would serve to further characterise the baseline view with wind energy development there are no judgements in the main assessment which would change should the scheme be considered to form part of the baseline.

6.10.23 The Hare Craig proposal lies immediately adjacent to the Proposed Development and therefore it would be visible in almost all views towards the Proposed Development, as can be seen with reference to the visualisations for assessment viewpoints 1-4, 8-10, 12, 13, 14-16 and 18. With turbines of more than 200m it would serve to reinforce the extent of large-scale wind energy infrastructure which was already visible in the direction of the Proposed Development and as a result would therefore mean that there was less potential for the Proposed Development to bring about visual effects in some directions where the Hare Craig scheme would lie in the foreground of the view e.g. Viewpoints 13 and 14. However, there would be no change to the level of effects identified previously.

Sequential Cumulative Effects on Visual Amenity

6.10.24 A 'sequential' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms in addition to the Proposed Development, whilst travelling along a linear route. This could be either on foot, whilst walking on a footpath, or by bicycle or car along the public highway.

6.10.25 A consideration of the visual effects on linear transport routes within the study area has already been presented in the main assessment in terms of both the current baseline and the future baseline in which consented schemes are considered to be constructed and feature of the baseline landscape.

6.10.26 This section therefore considers the matter of sequential visual effects on the experience of using the linear transport routes should the application stage schemes also be granted consent. In particular this focuses on the M74, A70, B7087, which are situated closest to the Proposed Development.

6.10.27 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 Middle Muir Wind Farm is intermittently visible alongside the Andershaw Wind Farm. As previously assessed, between Junctions 12 and 10 the Proposed Development would be visible briefly when travelling either northwards or southwards. In the future baseline scenario previously discussed, the Broken Cross 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 (now under construction) and consented Cumberhead Wind Farm at the foot of the rolling moorland on which Hagshaw Hill Extension, Galawhistle Wind Farm and Nutberry Wind Farm are already visible. Further north of Junction 10, there are intermittent views of the existing Auchrobert and Kype Muir Wind Farms. Just south of Larkhall, the existing Lochhead turbines lie immediately adjacent to the motorway and are also visible from the route. In short, wind turbines are already a regular feature of the landscape from Junction 15 at Moffat up towards the southern edge of the Glasgow conurbation and this will be further reinforced once the consented turbines are built out. The addition of the application stage schemes at Douglas West Extension and Hare Craig would further consolidate the effect of turbines in this part of the landscape when viewed from the M74. However, in the context of the already consented and operational wind farms in this landscape, the additional effect of introducing the Proposed Development to the overall sequential experience of the route would not be significant.

6.10.28 In relation to the A70, in the future baseline scenario, when travelling westwards from the M74 junction the 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 Middle Muir and Andershaw Wind Farms 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 at the rear of the established cluster of wind energy development. The addition of the application stage schemes at Douglas West Extension and Hare Craig would further consolidate the effect of turbines in this part of the landscape when viewed from the A70. 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 Development.

6.10.29 East of the M74 on the A70, where visible, the Proposed Development would be seen in conjunction with the wider cluster of development including the Douglas West, Dalquhandy, Cumberhead and Hagshaw Hill Repowering Wind Farms 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

6.10.30 The sequential views from the B7078 and NCN 74 would be similar to those experienced along the M74 between Abington Services and Larkhall. In the future baseline scenario, a number of individual medium to large scale turbines would lie in close proximity to the B7078 within the farmland along the motorway corridor (including Broken Cross Wind Farm, 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 would already be visible. Again, the addition of the application stage schemes at Douglas West Extension and Hare Craig would further consolidate the effect of turbines. 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.

Overall Combined Effect of all operational, consented and proposed schemes

6.10.31 Consideration has also been given the overall totality of the cumulative visual effect, when the Proposed Development is considered alongside the other operational, consented and proposed schemes. As with the consideration of the overall total combined impact on landscape character, it is clear that significant visual effects would already be brought about on a number of receptors in the local area, as a result of the other existing and consented wind farms. The Proposed Development would largely therefore serve to consolidate these existing effects rather than introducing notable new significant visual effects in its own right. However, even when considered collectively it is noted that there is generally a good separation between the cluster of development

and the nearest visual receptors such that considering the overall collective extent of wind energy in the area the significant effects would be relatively limited and localised in their nature.

6.11 Summary

6.11.1 The Proposed Development is located in South Lanarkshire, within an area of coniferous plantation at Cumberhead Forest and on land immediately adjacent to it. The site is located approximately 4.3 km to the west of Coalburn, 5.6 km to the south-west of Lesmahagow, 7.2 km north-west of Douglas and 6 km north-east of Muirkirk. The Proposed Development adjoins an established cluster of wind farms around Hagshaw Hill, known as the 'Hagshaw Cluster' and lies within an area identified in the South Lanarkshire Landscape Capacity Study for Wind Energy (2016) as having a medium capacity for wind turbines over 120 m.

6.11.2 The site does not fall within a National Scenic Area, National Park, Regional Scenic Area, or locally designated Special Landscape Area. The nearest locally designated landscape is the Douglas Valley Special Landscape Area which is situated approximately 3.5km to the south-east of the site boundary.

6.11.3 The Proposed Development site and its access route cross a number of landscape character types/sub types, namely: LCT 7 Rolling Moorlands; LCST 7A Rolling Moorlands Forestry; LCST 7B Rolling Moorlands Windfarm and LCT 5 Plateau Farmland. 19 of the proposed turbines are located in LCST 7A – Rolling Moorland Forestry with the other two turbines sited in LCT 7 Rolling Moorlands.

6.11.4 The landscape in which most of the turbines are located is currently covered with coniferous plantation that is due to be felled and replanted in phases, in line with the felling plan as that set out within Chapter 16. The felling of the plantation would occur regardless of the presence of the Proposed Development which would bring about change to the baseline landscape, albeit temporary. The Proposed Development would be implemented within the plantation with restocking occurring out with the areas required for the presence of the proposed turbines and the associated ground level components, and thus the proposed turbines would be located within plantation forest during the lifetime of the Proposed Development.

6.11.5 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 without public subsidy. It was acknowledged that the nearby consented Hagshaw Hill Repowering scheme proposes to use 200m high turbines. Therefore, it would be important to ensure that the Proposed Development would relate well to the Hagshaw Hill Repowering and other nearby developments and would not be incongruous with the overall pattern or scale of the landscape. Through consideration of a range of turbines sizes, it was established that notwithstanding the height of the 200 m turbines, the manner in which they relate to their immediate landscape context is broadly similar to that of the surrounding schemes, and they produce much more renewable energy per turbine. When the additional energy generation, carbon reduction and community benefits 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 the taller turbine height, 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'.

6.11.6 Appropriate offsets from all properties and settlements, out with the control of the Applicant or other involved landowners, have been maintained to ensure that no property would experience an overbearing visual impact such that it became an unattractive place to live. This has been a particular consideration in relation to the residential properties to the north-east of the site and the part of the landscape in this area, as represented by Viewpoint 4 – Minor Road, Brackenridge. The design has been amended during the design iteration process to increase the distance between the turbines and properties in this part of the landscape, thereby reducing the potential visual effect on this area. Embedded Mitigation has been designed into the proposed aviation lighting to reduce the intensity of the 2000 candela steady state lights in certain atmospheric conditions by reducing their

intensity and also attenuating the amount of vertical downwards lighting in order to reduce the visual impact experienced by receptors below the lights.

6.11.7 The landscape local to the site has seen considerable change and continues to evolve as a result of further wind farm development, opencast mine restoration and forestry activities. Part of the local landscape is already considered to be a wind farm landscape as set out within the published South Lanarkshire Landscape Character Assessment, and it is considered that with the addition of the other wind developments now consented to the immediate east and north-east, this wind farm landscape area extends further across the local area than the vicinity of Hagshaw Hill.

6.11.8 This context was an important consideration for establishing the baseline against which the Proposed Development has been assessed. Due to the number of consented wind farm schemes in close proximity to the site, including the Cumberhead Wind Farm immediately adjacent to the Proposed Development site, it was considered appropriate to assess the effects of the Proposed Development, firstly against the current baseline landscape and then secondly, against the 'future baseline' landscape, once all consented schemes have been constructed. This future baseline scenario has been shown in the visualisation material provided for each of the assessment viewpoints. The cumulative impact assessment has then considered those schemes that have not yet been granted consent but are subject of a formal planning application.

6.11.9 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. These worst-case effects are noted in Table 6.14 at the end of this summary.

6.11.10 The Proposed Development would result in direct and significant effects on the landscape character types within which the site is located, LCST 7A – Rolling Moorland Forestry and LCT 7 Rolling Moorland, in both the current and future baseline scenarios. However, effects would not be significant to more distant occurrences of these character types.

6.11.11 The Proposed Development would also result in indirect and significant effects to some adjoining character types. Within the LCT 5 – Plateau Farmland sub-area situated immediately north of the site, significant effects would extend across this sub-area in both the current and future baseline scenarios.

6.11.12 The other landscape character types that would experience significant effects, namely: LCT5 sub-area to the north-east, south of Auldtonheights and west of the B7078; LCT 6 Plateau Moorland sub-area situated approximately 2.5km to the east of the site; LCT 7 Rolling Moorland sub-area to the immediate north-west of the site and LCT8 Upland River Valley sub-area to the east up to approximately 3.5km, would only experience significant effects in the current baseline scenario but the effects of the Proposed Development would no longer be considered significant when assessed against the future baseline scenario due to the additional influence of the other adjacent wind farms that would be present within the immediate surrounding landscape.

6.11.13 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 8.3 km of the Proposed Development.

6.11.14 Of the 18 representative viewpoints considered it has been assessed that there would be a significant visual effect experienced at four locations, namely: Viewpoint 1 – Coalburn, Muirburn Place; Viewpoint 3 – Lesmahagow, Hill Crest; Viewpoint 4 – Minor Road, Brackenridge and Viewpoint 15 – Cairn Table. However, of these only one viewpoint, Viewpoint 4 – Minor Road, Brackenridge would experience significant effects when the Proposed Development is assessed against the future baseline scenario.

6.11.15 There are 17 residential properties or groups of properties within 2 km of the proposed turbines. Of these 17 properties, four have a financial involvement in the project, one of which is abandoned and no longer in use. Furthermore, one of the remaining uninvolved properties is also abandoned. The RVAS, presented at Appendix 6.5 concludes that there would be significant effects experienced at five of the assessed properties or groups but none of the residents at the properties would

experience such an overbearing effect on visual amenity that any property would become an unattractive place to live or visit.

6.11.16 There are a number of settlements located between 2 km and 5 km from the site. Of these, Coalburn situated approximately 4.3 km to the east and Lesmahagow situated approximately 5.6 km to the north-east would experience significant visual effects, but only when assessed against the existing visual baseline. Considered against the future baseline scenario the effects would not be significant. All other settlements within 2 km and 5 km would not experience significant effects. Between 5km and 10 km, the only settlement that would experience significant effects is New Trows. Effects experienced at all other settlements within 5 km to 10 km from the site would not be considered significant.

6.11.17 With regard to the Core Paths, Aspirational Core Paths and Wider Network paths in the vicinity of the site, significant effects would only be experienced from the two Wider Network paths that either cross through parts of the Proposed Development site, in the case of Wider Network path Auchengilloch via Logan Farm (EK/5847/1), or follow parts of the existing forest track that forms the access route to the Proposed Development. However, significant effects would only be experienced in the immediate vicinity of the site and as such the effects would be localised. There would be no significant effects experienced by users of other recreational routes near the site that include the River Ayr Way and also National Cycle Network Route 74. Significant effects would not be experienced from any of the A-roads or B-roads close to the site, or from centres of tourism and recreational activity at Douglas Valley, Castle Dangerous or the former Dalquhandy mining area.

6.11.18 The assessment of landscape and visual effects of aviation lighting has identified that the visible lighting would be screened by landform and topography from the wider surrounding area within 10 km, in particular from Douglas and large sections of A70, with those views which are available generally seen in areas where night time lighting is a familiar element of the landscape. The assessment has identified significant effects on the character of the landscape in the immediate vicinity of the site during low-light levels, up to approximately 4 km. Significant visual effects have been identified for the minor road network to the north-east of the site and a small number of associated residential receptors with a view towards the site, again within up to approximately 4 km. Coalburn would experience a significant visual effect when assessed against the existing baseline, but this would reduce to non-significant once the future baseline landscape, including the lit turbines at Dalquhandy, is considered. Elsewhere, including from the settlements of Lesmahagow and Muirkirk, the proposed aviation lighting would not give rise to significant landscape and visual effects, and any effects would reduce further when considered against the future baseline. These effects would be further reduced by the embedded mitigation comprising reduced intensity operation in certain atmospheric conditions and attenuating the amount of vertical downwards lighting in order to reduce the visual impact.

6.11.19 The approach taken within the LVIA to consider the effects arising from the Proposed Development on both the existing baseline and future baseline scenario means that the cumulative assessment has focussed solely on additional effects that may arise from the Proposed Development if the other in planning schemes, namely: Hare Craig; Douglas West Extension; Kennoxhead Extension and Glentaggart were approved and constructed. 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. Therefore, in the scenario where these four additional schemes were already present in the baseline landscape, it would be generally expected that the potential for the Proposed Development to bring about effects on landscape character would be reduced.

6.11.20 Kennoxhead Extension and Glentaggart are over 8km from the site, adjacent to existing or consented wind farms and several other operational and consented schemes lie between them and the site. Therefore, their addition to the baseline would not result in any change to the assessment of landscape character effects reported in the LVIA.

6.11.21 The incorporation of the Douglas West Extension into the baseline would consolidate the presence of 200m high turbines in the local area, thereby reducing the effect of the Proposed Development, but resulting in no change to the future baseline judgements set out in the LVIA. The inclusion of the Hare Craig scheme would firmly establish the presence of 200m plus high turbines in the

immediate vicinity of the site and would reduce the level of effects resulting from the Proposed Development on LCT 18a Plateau Moorlands sub-area to the south-west at Starpet Rig and Sclanor Hill, where the effect would reduce from moderate and significant to moderate minor and not significant.

6.11.22 The combined effect of the Proposed Development and all other operational, consented and proposed schemes would lead to notable effects on much of the local landscape resulting in a characterising effect to much of the rolling moorland landscape (LCTs 7, 7A and 7B) in the vicinity of the site. However, this effect would occur in the absence of the Proposed Development and so, the Proposed Development would consolidate this existing effect brought about by other schemes.

6.11.23 In terms of cumulative in-combination visual effects, the addition of the Glentaggart and Kennoxhead Extension to the baseline would make no material difference to the assessment of visual effects. The addition of the Douglas West Extension and Hare Craig schemes would serve to further characterise the baseline view with wind energy and would mean that there was less potential for the Proposed Development to bring about visual effects in views where these schemes lie in the foreground of the view. Nonetheless, the judgements within the LVIA would remain unchanged.

6.11.24 With regard to sequential cumulative effects, views of existing wind farms are an established feature of views from the M74. The addition of the Douglas West Extension and Hare Craig schemes would further consolidate this and the addition of the Proposed Development to the overall sequential visual experience from the route would not be significant.

6.11.25 In relation to the A70 west of the M74, the addition of the application stage schemes at Douglas West Extension and Hare Craig would further consolidate the effect of turbines in this part of the landscape when viewed from the A70. 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 Development. East of the M74 on the A70, the Proposed Development would be seen in conjunction with the wider cluster including the Douglas West, Dalquhandy, Cumberhead and Hagshaw Hill Repowering Wind Farms and the existing Hagshaw Hill Extension, Nutberry Wind Farm and Galawhistle Wind Farm. Although 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

6.11.26 Regarding sequential views from the B7078 and NCN 74 the addition of the application stage schemes at Douglas West Extension and Hare Craig would further consolidate the presence of wind turbines in the wider landscape and 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.

6.11.27 Considering the totality of cumulative visual effect, it is clear that some receptors in the local area would experience a significant visual effect as a result of the other existing, consented and proposed schemes wind farms. Therefore, the Proposed Development would consolidate an existing effect rather than introduce notable new significant cumulative effects.

6.11.28 It is acknowledged that the Proposed Development adjoins the north-west of 'Cumulative Area 7' identified in the South Lanarkshire Local Plan – Supplementary Planning Guidance 10 (the 'Hagshaw Cluster') and extends it towards Cumulative Area 6. However, the Proposed Development has been designed as a coherent extension to the Hagshaw Cluster array that is contained with the Rolling Moorland Forestry landscape character type which already hosts substantial wind development (both existing and consented). Although it does extend the Hagshaw Cluster west towards Cumulative Area 6, care has been taken to ensure there remains a sufficient stand-off between the two clusters and that turbines do not extend onto the Rolling Moorland separating these two areas, as clearly illustrated in Figure 6.44 Viewpoint 8 – Black Hill. This viewpoint demonstrates that a 2 to 3 km separation will remain between the two clusters that prevents the coalescence (either actual or perceptual) between Cumulative Areas 6 and 7.

6.11.29 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.

6.11.30 Wind turbines give rise to a wide spectrum of opinions, ranging from strongly adverse to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. In the case of the Proposed Development the turbines and associated ancillary development may be viewed by some as a symbol of continued progress by society towards a low carbon future.

6.11.31 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.

6.11.32 The recent consents for other commercial scale wind farms at Douglas West (now under construction), Dalquhandy, Cumberhead, Broken Cross and Hagshaw Hill Repowering 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 in an area already occupied by large scale wind turbines and in this regard, would constitute an obvious continuation to the established pattern and distribution of existing wind turbines in this area as opposed to introducing any new features to an untouched landscape.

6.11.33 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 6.14 – Summary Table

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
During Construction / Decommissioning					
Landscape Character					
Landscape Character Types and Sub-Types	Worst-case Moderate/Minor (Not Significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate/Minor (Not Significant)	Adverse
Visual Receptors					
Visual receptors within the study area	Worst-case Moderate (Not significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate (Not significant)	Adverse
During Operation					
Landscape Character					
Landscape Character Type in which the Turbines are located – *existing baseline*	Worst-case Major (Significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Major/ moderate (Significant)	Adverse
Landscape Character Type in which the	Worst-case Moderate (Significant)	Adverse	No additional mitigation – consideration of landscape	Worst-case Moderate (Significant)	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Turbines are located – *future baseline*			and visual matters was inherent in the design process		
Other Landscape Character Types within 15km – *existing baseline*	Worst-case Major/ moderate up to 3.5 km (Significant) Worst-case Moderate (Significant)up to 7.5 km from the site	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Major/ moderate adjacent up to 3.5 km (Significant) Worst-case Moderate (Significant)up to 7.5 km from the site	Adverse
Other Landscape Character Types within 15km – *future baseline*	Worst-case Major/ moderate adjacent to the site (Significant) Worst-case Moderate (Significant) up to 3.5 km from the site	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Major/ moderate adjacent to the site (Significant) Worst-case Moderate (Significant) up to 3.5 km from the site	Adverse
Other Landscape Character Types within 15km (East Ayrshire) – *existing baseline*	Worst-case Moderate (Significant) up to 2.5 km from the site	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate (Significant) up to 2.5 km from the site	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Other Landscape Character Types within 15km (East Ayrshire) – *future baseline*	Worst-case Moderate (Significant) up to 2.5 km from the site	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate (Significant) up to 2.5 km from the site	Adverse
Visual Receptors					
Assessment Viewpoints – *existing baseline*	Significant effects on 4 of the 18 representative viewpoints, extending up to 8.3 km from the site.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant effects on 4 of the 18 representative viewpoints, extending up to 8.3 km from the site.	Adverse
Assessment Viewpoints – *future baseline*	Significant effects on 1 of the 18 representative viewpoints, extending up to 3.6 km from the site.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant effects on 1 of the 18 representative viewpoints, extending up to 3.6 km from the site.	Adverse
Residential properties within 2 km – *existing and future baseline*	Significant effects at five of the 12 assessed properties	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant effects at five of the 12 properties	Adverse
Settlements 2 km to 5km – *existing baseline*	Worst-case Major/ moderate at Coalburn at 4.3 km (Significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was	Worst-case Major/ moderate at Coalburn at 4.3 km (Significant)	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
			inherent in the design process		
Settlements 2 km to 5km – *future baseline*	Worst-case Moderate at Coalburn at 4.3 km (Not Significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate at Coalburn at 4.3 km (Not Significant)	Worst-case Moderate at Coalburn at 4.3 km (Not Significant)
Settlements 5 km to 10km – *existing baseline*	Worst-case Moderate up to 5.6 km (Significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate up to 5.6 km (Significant)	Adverse
Settlements 5 km to 10km – *future baseline*	Worst-case Moderate (Not significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate (Not significant)	Adverse
Settlements beyond 10 km – *existing and future baseline*	Worst-case Minor (Not significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Minor (Not significant)	Adverse
Footpaths and Cycleways – *existing baseline*	Worst-case Major significant effects limited to Wider Network Paths crossing through the site	Adverse	No additional mitigation – consideration of landscape and visual matters was	Worst-case Major significant effects limited	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	**Beneficial/ Adverse**		**Significance**	**Beneficial/ Adverse**
	Worst-case Moderate (Not significant) for all other paths and routes		inherent in the design process	to Wider Network Paths crossing through the site Worst-case Moderate (Not significant) for all other paths and routes	
Footpaths and Cycleways – *future baseline*	Worst-case Major significant effects limited to Wider Network Path crossing through northern part of the site. Worst-case Moderate/minor (Not significant) for all other paths and routes	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Major significant effects limited to Wider Network Path crossing through northern part of the site. Worst-case Moderate/minor (Not significant) for all other paths and routes	Adverse
Roads – *existing baseline*	Worst-case Moderate (Not significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate (Not significant)	Adverse
Roads – *future baseline*	Worst-case Moderate/minor (Not significant)	Adverse	No additional mitigation – consideration of landscape and visual matters was	Worst-case Moderate/minor (Not significant)	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
			inherent in the design process		
Centres of Recreational and Tourism Activity	Worst-case Moderate (Not significant) at Dalquhandy Opencast mine	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate (Not significant) at Dalquhandy Opencast mine	Adverse
Cumulative Effects					
Scenario 1 (Considered within the LVIA Chapter as the future baseline) and reported above					
Scenario 2 (Addition of the proposed schemes currently in planning)					
Landscape Character	Worst-case Moderate/minor (Not significant) at LCT 18a Plateau Moorlands sub-area to the south-west at Starpet Rig and Sclanor Hill	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Worst-case Moderate/minor (Not significant) at LCT 18a Plateau Moorlands sub-area to the south-west at Starpet Rig and Sclanor Hill	Adverse
Combined Landscape Character Effects of all other operational, consented and proposed schemes	Significant effects on much of the rolling moorland landscape (LCTs 7, 7A and 7B) in the vicinity of the site. However, this effect would occur in the absence of the Proposed Development and so, the Proposed Development would consolidate this	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Significant effects on much of the rolling moorland landscape (LCTs 7, 7A and 7B) in the vicinity of the site. However, this effect would occur in the	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
	existing effect brought about by other schemes.			absence of the Proposed Development and so, the Proposed Development would consolidate this existing effect brought about by other schemes.	
In-combination Visual Effects	The addition of the Glentaggart and Kennoxhead Extension to the baseline would make no material difference to the assessment of visual effects. The addition of the Douglas West Extension and Hare Craig schemes would serve to further characterise the baseline view with wind energy and would mean that there was less potential for the Proposed Development to bring about visual effects in views where these schemes lie in the foreground of the view. The judgements within the LVIA would remain unchanged.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Judgements would remain unchanged.	Adverse
Sequential cumulative visual effects	No additional significant effects resulting from the addition of the Proposed Development	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	No additional significant effects resulting from the addition of the Proposed Development	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Combined cumulative visual effect	The Proposed Development would not introduce any additional significant effects and would consolidate the existing effects of the other existing, consented and in planning schemes.	Adverse	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	Judgements would remain unchanged.	Adverse

6.12 References

Carol Anderson Landscape Associates (2018) *East Ayrshire Landscape Wind Energy Capacity Study*

Carol Anderson / Alison Grant (2017) *Dumfries and Galloway Wind Farm Landscape Capacity Study*

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

Landscape Institute (2017) *Technical Guidance Note 02/17 Visual Representation of Development proposals*

Land Use Consultants (LUC) (1998). Ayrshire Landscape Assessment, NatureScot Review No 111

LUC (1998). Dumfries and Galloway Landscape Assessment, NatureScot Review No 94

LUC & Glasgow University (1999) *Glasgow & Clyde Valley Landscape Assessment, NatureScot Review No 116*

Scottish Borders Council/Ironside Farrar (2013). *Wind Energy Consultancy Landscape Capacity and Cumulative Impact*

NatureScot (March 2012). *Assessing the Cumulative Impact of Onshore Wind Energy Developments*

NatureScot (Feb 2017) *Visual Representation of Wind farms – Version 2.2*

NatureScot (2017) *Siting and Design of Wind farms in the Landscape, Version 3*

South Lanarkshire Spatial Framework and Landscape Capacity for Wind Farms (2010)

South Lanarkshire Landscape Character Assessment (2010) SLC/Ironside Farrar

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

South Lanarkshire Validating Local Landscape Designations (2010) SLC/Ironside Farrar

South Lanarkshire Spatial Framework and Landscape Capacity for Wind Turbines (2010) SLC/ Ironside Farrar

South Lanarkshire Spatial Framework and Landscape Capacity for Wind Turbines Update (2013) SLC/ Ironside Farrar

The Countryside Agency & NatureScot (NatureScot)(2002). *Guidelines for Landscape Character Assessment*

The Countryside Agency and Scottish Natural Heritage (2002). *Landscape Character Assessment Guidance for England and Scotland: Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity*

This page is intentionally blank.