Daer Wind Farm

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Appendix 5.3

Wild Land Assessment

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List of Abbreviations

Abbreviation	Description
AOD	Above Ordnance Data
CLVIA	Cumulative Landscape & Visual Impact Assessment
ECU	Energy Consents Unit
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
GLVIA3	Guidelines for Landscape & Visual Impact Assessment, Third Edition
LCT	Landscape Character Type
LVIA	Landscape & Visual Impact Assessment





Abbreviation	Description
NPF3	National Planning Framework 3
RSA	Regional Scenic Area
SLA	Special Landscape Area
SNH	Scottish Natural Heritage (now NatureScot)
SPP	Scottish Planning Policy
WLA	Wild Land Area
ZTV	Zone of Theoretical Visibility





A5.1 INTRODUCTION

- A5.1.1 Wild Land Areas (WLA) are not a statutory designation but are identified as a nationally important asset in National Planning Framework 3 (NPF3) and as such are afforded "areas of significant protection" status within Table 1 (Page 39) of Scottish Planning Policy (SPP). SPP states that in the context of any proposed development within WLA "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."
- A5.1.2 In support of SPP, NatureScot (formerly Scottish Natural Heritage (SNH)) have identified and mapped 42 WLA (SNH, 2014) in Scotland. Within the 45 km study area of the Proposed Development, one WLA is situated, the Talla Hart Fells WLA in the Scottish Borders located approximately 9.3 km to the north east of the nearest turbine.
- A5.1.3 Following post-Scoping consultation with the Energy Consents Unit (ECU), NatureScot, provided a response on the 28th of February 2020 as follows: "The Talla Hart Fell WLA is a nationally important asset valued for its wildness, to which the absence of human artefacts, including light pollution, and dark sky qualities contribute. A Wild Land Assessment should be provided to assess the effects of the wind farm, including the effects of turbine lighting, on the WLA. To do this, we advise that night-time visualisation should be provided from Hart Fell within the WLA. A cumulative night-time photomontage should be included which illustrates all wind farms at application stage and beyond where turbine lighting requirements are triggered."
- A5.1.4 This Appendix of the Environmental Impact Assessment Report (EIAR) assesses the potential effects of Daer Wind Farm (the Proposed Development) on the Talla Hart Fells WLA. This assessment should be read in conjunction with the following key documents and figures:
 - · Chapter 3: Project Description;
 - Chapter 5: Landscape & Visual Impact Assessment;
 - Appendix A5.1: Landscape & Visual Impact Assessment Methodology;
 - Appendix A5.2: Landscape Assessment;
 - Figure 5.2a: ZTV to Tip Height (A3 Size);
 - Figure 5.2b: ZTV to Tip Height (A0 Size);
 - Figure 5.4: ZTV of Aviation Lighting by Intensity;
 - Figure 5.6: Protected & Designated Landscapes;
 - Figure 5.11: Cumulative Sites considered in Cumulative Assessment;
 - Figures 5.34a 5.34g: Viewpoint 18: Hart Fell; and
 - Chapter 13: Infrastructure & Aviation.

A5.2 WILD LAND ASSESSMENT METHODOLOGY

- A5.2.1 This assessment has been undertaken by Chartered Landscape Architects from Natural Power (see Section A5.2 of Appendix 5.1 for Statement of Competency).
- As set out in NatureScot's revised guidance Assessing impacts on Wild Land Areas, Technical Guidance (2020), the general approach and principles of the Wild Land Assessment is consistent with the Guidelines for Landscape & Visual Impact Assessment, Third Edition (GLVIA3), but should be undertaken separately from the Landscape & Visual Impact Assessment (LVIA) to avoid duplication of the assessment. NatureScot state that the assessment "should consider effects on the physical attributes and perceptual responses that contribute to the WLA qualities identified in the WLA descriptions."

- A5.2.3 It should be noted that using the GLVIA3 approach to the Wild Land Assessment is less prescriptive and allows for a more subjective interpretation in respect of perceptual responses, given that these are inherently individual reactions. Nevertheless, this assessment has assumed professional judgement in order to inform an understanding of the landscape context and level of effects likely to be experienced and should be read in conjunction with the LVIA methodology outlined in Appendix A5.1.
- A5.2.4 Fieldwork was undertaken in clear conditions with excellent visibility between August and October 2020. Additionally, viewpoint photography was undertaken during the same time frame in daytime to the requirements of NatureScot's visualisation guidance (SNH, 2017). No photography has been undertaken at dusk as set out in the response to NatureScot in Table 5.2 of the LVIA Chapter.
- A5.2.5 NatureScot's guidance (2020) sets out the methodology to be applied in undertaking wild land assessment as follows:

Table A5.3.1: NatureScot Overview of Wild Land Area Impact Assessment

Step	Summary
Step 1 – Define the study area and the scope of the assessment	Identify a study area appropriate to the scale of the proposal and extent of likely significant effects on the WLA.
	Output: Brief justification and map or description of the area that will be assessed.
Step 2 – Verify the WLA baseline	Confirm the wild land qualities (set out in the WLA description) relevant to the study area, describing any major changes that have occurred since the description was prepared and the nature of their contribution to the WLA.
	Output : Identification of relevant qualities and explanation of how any changes since preparation of the WLA Description have affected them.
Step 3 – Assess the sensitivity of the qualities	Through detailed field assessment within the study area, assess the sensitivity of the wild land qualities scoped in (including their physical attributes and perceptual responses), to the type and scale of change proposed.
	Output : A clear and concise narrative explaining the susceptibility of individual qualities and/or combinations of qualities where there is some commonality between their contributing attributes and responses, and their overall sensitivity.
Step 4 – Assess the magnitude of the effects	Assess the effects on individual and / or combinations of qualities, drawing out which physical attributes and perceptual responses will be affected, how and to what degree. This should reflect the size or scale of change, its extent and duration.
	Output : A clear and concise narrative explaining the effects of the various elements of the proposal on individual qualities and / combinations of qualities.
Step 5 – Judge the significance of the effects	Conclude on the overall significance (taking into account any mitigation), in terms of the study area and where relevant the wider WLA.
	Output : A clear narrative explaining the overall significance of residual effects identified on the individual qualities and / or combination of qualities.

Source: Assessing impacts on Wild Land Areas, Technical Guidance (NatureScot, September 2020)



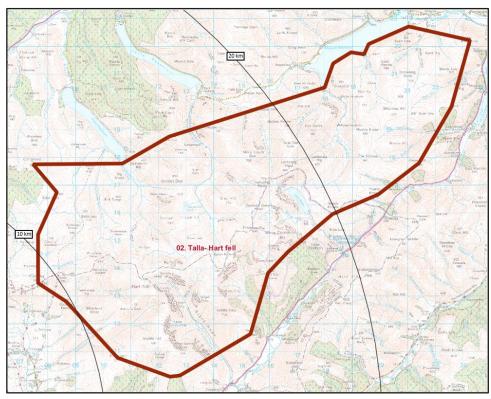


A5.3 TALLA – HART FELLS WLA

Context

A5.3.1 The Talla – Hart Fells WLA lies approximately 5.2 km to the north east of Moffat, and 11.6 km to the south east of Crawford. Covering approximately 93 km² as shown on Map A5.3.1.

Map A5.3.1: Talla - Hart Fells WLA



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A5.4 MITIGATION

- A5.4.1 The siting and layout of the Proposed Development was based on an iterative design process described in detail in Chapter 2: Site Selection and Design Evolution and Chapter 5: Landscape & Visual Impact Assessment of this EIAR.
- A5.4.2 In addition, a reduced lighting scheme has been developed in order to minimise the number of turbines requiring aviation lighting. This comprises lighting eight turbines (T1 / T2 / T6 / T7, T10, T14/T15/T17), as described in Chapter 13: Infrastructure & Aviation.

A5.5 PROPOSED DEVELOPMENT

- A5.5.1 The key components of the Proposed Development are set out in Chapter 3: Project Description. The main effects likely to be experienced from the WLA are indirect, insofar as the Proposed Development would not be located within the WLA and potential effects would be limited to perceptual effects as follows:
 - Temporary effects associated with the erection of 17 turbines including crane operations during construction;
 - Long term effects associated with the operation of 17 turbines; and
 - Long term effects of the reduced aviation lighting scheme of 8 turbines.



A5.6 WILD LAND ASSESSMENT

Step 1 – Define the study area and the scope of the assessment

- A5.6.1 NatureScot's revised guidance Assessing impacts on Wild Land Areas, Technical Guidance (2020) states that 'The assessment should consider effects on the physical attributes and perceptual responses that contribute to the WLA qualities identified in the WLA descriptions published by Scottish Natural Heritage (now NatureScot).' The guidance goes on to say 'This guidance should only be applied to proposals whose nature, siting, scale or design are likely to result in a significant effect on the qualities of a WLA. Given this, assessments are more likely for proposals within a WLA, and are less-likely for proposals outwith the WLA.'
- A5.6.2 In 2017, SNH published *Description of Wild Land Areas* which identifies the key attributes and qualities of each WLA and provides further information on the various aspects of the landscape that contribute to their distinctiveness and specific wildness qualities. Table A5.3.2 lists the key attributes and qualities identified by SNH specifically for the Talla-Hart Fell WLA and establishes which of those are likely to be affected by the introduction of the Proposed Development.

Table A5.3.2: Talla - Hart Fells WLA - Key Attributes and Qualities

	Key attributes and qualities of the wild land area	Inclusion in the Wild Land Assessment		
	Rounded moorland hills, deeply incised by glens and deception	ively challenging to traverse		
	These rounded hills are deeply incised by several steep-sided glens, ravines and corries. Very steep slopes, combined with large areas of deep bog at lower levels, on bealachs and on the flatter tops make access more physically challenging than their rounded appearance suggests.	No - The Proposed Development will not physically affect any aspects of this attribute due to lying outside and at considerable distance from the WLA.		
	Once climbed, access across the drier hill tops is easier, although many of the upland routes are pathless, making navigation on the rounded summits and plateaux harder, consequently increasing the sense of risk.	No – The Proposed Development would not physically affect the ability of walkers to traverse the WLA.		
	Although not as high as mountain ranges further north, parts are very exposed, with arresting views into steep-sided glens and glacially sculpted corries which contribute to a sense of naturalness.	No – The Proposed Development would not affect internal views within the WLA of deep-sided glens and corries.		
	From the glens and corries and within some lower lying parts of the flatter tops, there is a stronger sense of enclosure and a focus on nearby detail, such as the hummocky topography formed by fluvio glacial deposits, giving a greater sense of remoteness and sanctuary.	No – The Proposed Development would largely be screened within these enclosed areas.		
	A strong perception of naturalness that contrasts with the surrounding forest plantations			
	A rich mosaic of rough grass, heather, bracken and bog vegetation covers most of the WLA, with montane grassland on higher slopes. Exposed rock outcrops, fast flowing burns and waterfalls also contribute to the strong sense of naturalness. Sheep grazing is evident in places, with some stock fences and ATV tracks. These indicate contemporary land use and introduce human artefacts, but are not sufficiently widespread to noticeably affect the overall sense of naturalness.	No - The Proposed Development will not physically affect these attributes or lead to any further degradation of the wildness qualities associated with development within the WLA.		
	Some small forest plantations lie on the slopes above the Chapelhope Burn and there are other plantations, just outwith the WLA. These are mostly along the hillsides above the Moffat Water and the largest is at Emblem Brae. The rectangular conifer blocks can be seen from some south-facing hillsides, where they contrast strongly with the colour and rounded form	No - The Proposed Development will not physically affect or alter the forest plantations within or on the vicinity of the WLA.		



Key attributes and qualities of the wild land area

of the moorland slopes and detract from the sense of naturalness, sanctuary and remoteness. These effects are limited by the steepness and complexity of the moorland slopes, which restricts the overall visibility of the plantations.

From the tops and upper slopes there are longer, more widespread views to more distant forest plantations. Those on the Ettrick Hills and to the south of Tweedsmuir are noticeable, with extraction tracks and areas of clear fell visible. Even where seen at a distance, these extensive plantations can diminish the sense of remoteness and sanctuary of the interior.

A large area of native tree planting within Carrifran Glen has a positive effect on the sense of naturalness, accentuating the rugged nature of the open moorland hills visible above. Some tree shelters are evident and fencing around the planted area emphasises the woodland edge. These introduce human artefacts that detract slightly from the sense of naturalness, although these effects are likely to diminish as the trees grow.

Inclusion in the Wild Land Assessment

No – The Tweedsmuir Hills are located to the north east and the Ettrick Hills situated to the south east. The Proposed Development would be located to the south west and not interrupt views towards these hill ranges. Nor would the Proposed Development result any areas of clear fell.

No – the Proposed Development would not affect the sense of naturalness within Carrifran Glen.

A well-defined area of wild land that contrasts with the surrounding glens, but with strong visual links to adjacent hills

The WLA is surrounded by larger glens that contain roads, settlement, forest plantations, improved fields and other signs of human activity. From the adjacent public roads, the WLA is mostly experienced as a simple, open and rugged moorland backdrop, which contrasts with these more diverse, enclosed, managed and settled glens. From the glens of the Moffat Water and, to a lesser extent, the Megget Water, the steep sides tend to limit views to glimpses, often along the smaller tributary burns that incise the hills, such as at Black Hope and Carrifran. Although from the west, the wider glen of the River Annan allows more continuous views towards Hart Fell and White Coomb, the interior is generally screened from view by the outer slopes, so that the extent of the WLA is not obvious from outside.

Proposed Development and its introduction would not interrupt views from the glen towards the WLA.

No - The River Annan is situated between the WLA and the

The influence of these settled glens quickly diminishes towards the interior. From within the hills, the steepness of the valley sides and complex topography often conceal views of the settled glens and allows stronger visual links to be made to the Ettrick Hills to the south and the Tweedsmuir Hills to the north, which can appear to form part of the same WLA.

Within the lower-lying parts of the interior, the complex hill topography often prevents views of surrounding human activity altogether, so concealing the extent of the WLA and providing a stronger sense of remoteness and sanctuary, than the proximity to main roads would suggest, notably around Loch Skeen, for example.

No – the introduction of the Proposed Development would not affect this attribute. The ZTV indicates that theoretical visibility of the Proposed Development would not occur within these areas which is further demonstrated during a site visit where it

No – The Proposed Development is situated beyond forestry to

the south west and is not a visual link extending the upland

area beyond the WLA.

Few human artefacts, mostly historic settlements that are restricted to sheltered glens

Most habitation was in the past concentrated along the sheltered glens, leaving the uplands relatively undeveloped. Some dwellings and agricultural buildings at Winterhopeburn and Syart are accessed by constructed tracks which have a localised effect on the sense of remoteness, but are not extensively visible.

No – The Proposed Development would not introduce any further tracks within the WLA.

was noted that Clyde Wind Farm was not visible.

There are very few other human artefacts within this WLA. The steepness of the landform means that tracks are mostly restricted to the base of the minor glens that penetrate the hills

No - The Proposed Development would not introduce any further tracks within the WLA.

Key attributes and qualities of the wild land area

and do not provide through routes. These tracks are generally well integrated and often grassed over, so reducing their effect on the wild land qualities.

Stone sheep shelters (stells), enclosures, shielings and dykes are common within these glens, providing reminders of past use of the land. They are usually small, isolated human elements and some are ruins, only just discernible as human artefacts, with little consequent effect on the sense of remoteness and sanctuary.

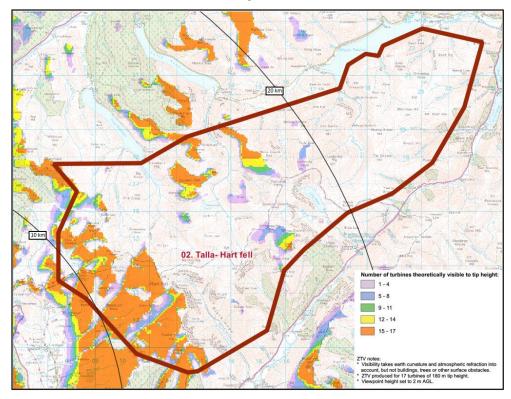
Inclusion in the Wild Land Assessment

No – the Proposed Development would not have an effect on these attributes

Source: Talla – Hart Fells Wild Land Description (SNH, 2017)

- A5.6.3 The review of the key attributes in Table A5.3.2 confirms that the physical attributes of the WLA would not be affected with effects being limited to perceptual qualities, i.e. the introduction of further wind turbines within the surrounding area and the effect they will have on wildness and tranquillity.
- A5.6.4 Therefore, the study area and scope of assessment have been defined through analysis of the Zone of Theoretical Visibility (ZTV) shown on Figure 5.6 and Map A5.3.2 which predicts where the Proposed Development is theoretically likely to be experienced from within the WLA.

Map A5.3.2: Talla - Hart Fells WLA with ZTV Overlay



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This shows that theoretical visibility of the Proposed Development would mostly occur in the south western extent of the designation covering the summits and south western facing slopes of Hart Fell and neighbouring hills, reducing thereafter to the summits of Garelet Dod, Molls Cleuch Dod, and White Coomb. This Wild Land Assessment will focus on the areas identified by the ZTV where the Proposed Development may theoretically be visible but will consider the whole of the WLA for the cumulative assessment.





Step 2 – Verify the WLA baseline

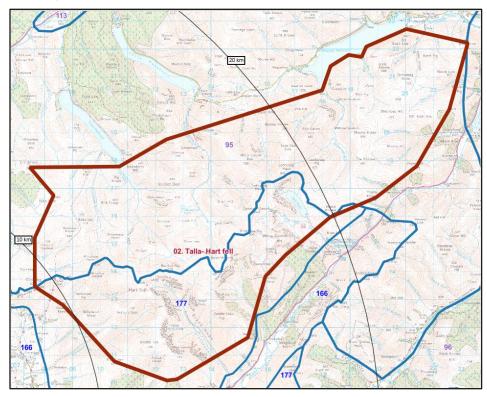
Context

- A5.6.6 Comprising an upland area of rounded moorland hills and incised deep clefts, the WLA is situated between the Megget Water in the north, and the Moffat Water in the south. The hills form an important backdrop from the surrounding settled lowlands and includes the distinctive summits of Hart Fell (808 m AOD), Whitecoomb (821 m AOD), and Lochcraig Head (801 m AOD). The Borders Forest Trust manages three rewilding projects within the WLA as follows:
 - 1,500 acres of restored woodland at Carrifran Wildwood in the east of the WLA;
 - 4,527 acres at Talla & Gameshope Estate occupying the central area of the WLA and intended for the restoration of montane woodland; and
 - Corehead and the Devils Beeftub comprising 1,580 acres in the western part of the WLA to include native woodland, wetlands and heathland restoration.
- A5.6.7 Additionally, the Grey Mares Tale Nature Reserve, managed by the National Trust for Scotland is located to the north of Carrifran Wildwood and partially within the WLA. The area is a popular destination for hillwalkers and a short section of the Annandale Way passes through the WLA in the west at Spout Craig.
- A5.6.8 A night-time site visit confirmed no artificial lights in the south western part of the WLA; however, the perceptual qualities of the WLA were influenced by artificial lighting sources beyond the WLA boundary. This included a variety of light sources experienced such as lights at the radar station on Green Lowther and Lowther Hill, individual properties in the surrounding glens and settlements in Annadale such as Moffat, Lockerbie and Dumfries, and distant views of the Kirk o' Shotts Transmitting Station to the north, Ashkirk Transmitter to the north east near Selkirk, and the Anthorn radar station on the Cumbrian coastline to the south.

Landscape Character

- A5.6.9 Map A5.3.3 indicates that the WLA is covered by two Landscape Character Types (LCT) as follows:
 - LCT 95: Southern Uplands Scottish Border; and
 - LCT 177: Southern Uplands Dumfries & Galloway.
- A5.6.10 Sharing similar characteristics, the LCTs have been distinguished separately owing to previously being covered by separate Landscape Character Assessments published by SNH in the late 1990's¹. The baseline and potential impacts on the key characteristics of the two LCTs are addressed separately in Appendix 5.2: Landscape Assessment.





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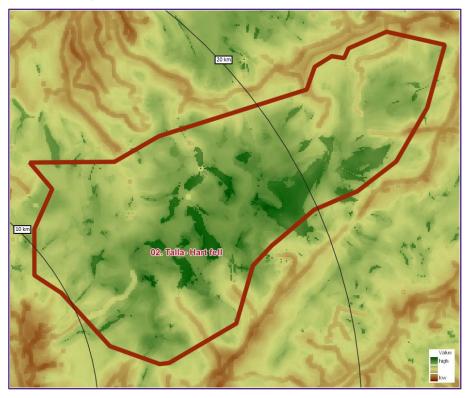
- A5.6.1 In 2014, SNH published a new map of Wild Land Areas which identified where the most significant and valued areas of wild land were in Scotland. Four principal attributes identified in SNH's policy statement (Wildness in Scotland's Countryside, 2002), namely perceived naturalness of land cover, ruggedness, remoteness and the lack of built modern artefacts were mapped using GIS based techniques which analysed a series of datasets. An index of wild land quality was then derived by combining the individual attribute layers which were given equal weighting.
- A5.6.1 With reference to the Talla Hart Fells WLA, the mapping indicated that the perceived naturalness extends from the high ground around Hart Fell in the south west, becoming widespread in the central area before reducing to the north east. Ruggedness is limited to crags, cleuchs and watercourses, whilst remoteness covered high ground in the south west, central area and limited parts of the north eastern side of the WLA. The areas with an absence of modern artefacts were limited to watercourses and crags in the west of the WLA, with larger areas to the east such as Loch Skeen. Map A5.3.4 provides a composite overview of wildness within the WLA. This shows that the wildest parts of the WLA are considered to be limited to areas that are more contained with limited influence from the surrounding landscape. It should be noted that the western side of the WLA is influenced by nearby forestry plantations and Clyde Wind Farm + Extension.



¹ The Borders landscape assessment (SNH, 1998) and Dumfries & Galloway Landscape Character Assessment (SNH, 1998)



Map A5.3.4: Wildness - Composite



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- A5.6.2 In 2017, SNH published *Description of Wild Land Areas* which identifies the key attributes and qualities of each WLA and provides further information on the various aspects of the landscape that contribute to their distinctiveness and specific wildness qualities.
- A5.6.3 The key attributes and qualities identified by SNH specifically for the Talla-Hart Fells WLA are described in detail in Table 5.3.2 are as follows:
 - Rounded moorland hills, deeply incised by glens and deceptively challenging to traverse;
 - A strong perception of naturalness that contrasts with the surrounding forest plantations;
 - A well-defined area of wild land that contrasts with the surrounding glens, but with strong visual links to adjacent hills; and
 - Few human artefacts, mostly historic settlements that are restricted to sheltered glens.
- A5.6.4 Although the WLA descriptions were published in 2017, the site work undertaken by NatureScot that underpins the key attributes and qualities was last undertaken in October and November 2013. Therefore, following a desktop review of the Talla Hart Fells WLA, several site visits were undertaken to confirm that the key attributes and qualities were still consistent. This identified that some changes have occurred both within the WLA and in the surrounding landscape since publication.
- A5.6.5 Within the WLA, as mentioned in Section A5.3, The Borders Forest Trust are undertaking rewilding work at three separate locations which is gradually changing the landcover from predominantly heavily grazed moorland, to a more diverse mosaic of montane scrub, heathland, wetlands and native woodland planting.
- A5.6.6 In the surrounding area, since 2013 several wind farms have been consented and built. These include Clyde Wind Farm Extension comprising 54 turbines which was consented in June 2014, and now occupies an area between



² Talla Hart Fells Wild Land Area Description(NatureScot, 2017)

the northern and central turbine clusters of the original Clyde Wind Farm development, located 4.2 km to the west of the WLA. Several other developments have also been consented although remain unbuilt as follows:

- Whitelaw Brae Wind Farm: Consented in May 2019, comprising 17 turbines at 133.5 m located 750 m to the north west of the WLA;
- Glenkerrie Wind Farm Extension: Consented in July 2015, comprising 6 turbines at 100 m located 10.0 km to the north west of the WLA;
- Crookedstane Wind Farm: Consented in January 2016, comprising 4 turbines at 126.5 m located 10.7 km to the south west, and
- Lion Hill Wind Farm: Consented in January 2016, 4 turbines at 126.5 m located 9.9 km to the south west.
- A5.6.7 The addition of the above wind farms when constructed, will extend wind farm development closer to the WLA in the case of Whitelaw Brae, and lead to further turbines appearing as part of the operational sites of Clyde and Glenkerrie Wind Farms (see Figure 5.11 for wind farm locations).

Step 3 – Assess the sensitivity of the qualities

- As mentioned in Section A5.3.1, WLA are not statutory designations but are identified as nationally important assets in NPF3 and SPP. Additionally, the WLA is recognised for its scenic value and is covered by two regional designations, the Tweedsmuir Uplands Special Landscape Area (SLA) in the Scottish Borders, and the Moffat Hills Regional Scenic Area (RSA) in Dumfries & Galloway.
- A5.6.9 It should be noted that there are areas within the WLA where the wildness attributes are considered to be of higher and lower sensitivity as demonstrated in Map A5.3.4. This shows that the wilder areas are confined to cleuchs, lochs and watercourses where the landscape is more contained, compared to the periphery area and higher ground where the perception of wildness is influenced by modern artefacts such as forestry and wind turbines in the wider area.
- A5.6.10 The WLA displays some characteristics that are suitable for accommodating wind farm development such as being large in scale, regular and simple landform surrounded by man-made elements such as settlement, roads, operational wind turbines and forestry. However, it is acknowledged that the WLA includes areas where the influence of man-made structures is less therefore increasing the perception of wildness which, when combined with a rugged and irregular landform, can increase susceptibility to the type of development proposed.
- A5.6.11 Overall landscape sensitivity is considered to be **High**.

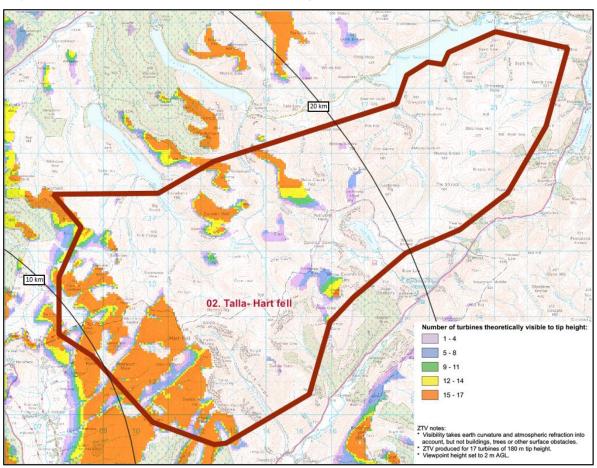
Step 4: Assess the magnitude of the effects

- A5.6.12 As confirmed in Step 1, the physical attributes of the WLA would not be affected by the Proposed Development and this assessment has concentrated on the perceptual qualities that are likely to be affected as follows:
 - A strong perception of naturalness that contrasts with the surrounding forest plantations; and
 - A well-defined area of wild land that contrasts with the surrounding glens, but with strong visual links to adjacent hills².
- A5.6.13 The ZTV shown on Figure 5.6 and Map A5.3.5 indicates that theoretical visibility of the Proposed Development would occur mainly in the south western part of the WLA covering the summits and south western slopes around Hart Fell including Arthurs Seat, Billscleuch Moor, Swatte Fell, Spout Craig, Middlefield Rig, Whitehope Knowe, Barncoroe Knowe, and Crown of Scotland. Elsewhere, theoretical visibility is predicted to be limited to hill tops around Garelet Dod, Molls Cleuch Dod and White Coombe (see A5.3 Wirelines appended to this Appendix). This would predominantly be 16-17 turbines reducing to 1 4 in lower lying areas with the visual envelope covering



approximately 19.3 % of the overall WLA. Much of the area covered includes steep hill slopes, accessible hill summits and the Annandale Way.

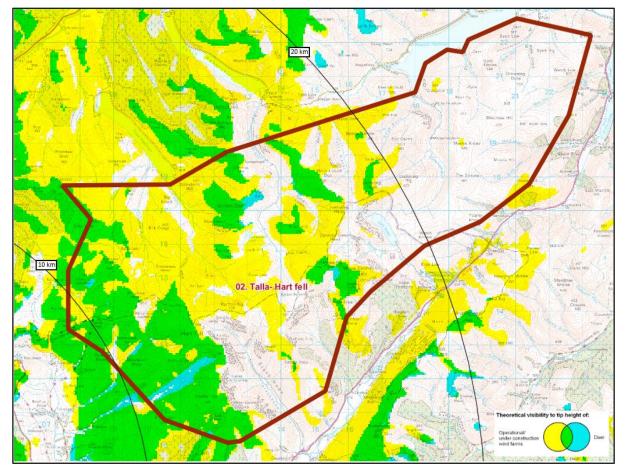
Map A5.3.5: Talla - Hart Fells WLA with ZTV Overlay



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- A5.6.14 The Proposed Development would occupy an area between Clyde and Harestanes Wind Farms with turbines being viewed just beyond forestry at Rivox. The proposed turbines would be seen to the west of Queensberry and backclothed by the hills beyond including Cairnsmore of Carsphairn and Shiel Dod. The foreground landform at Rivox would help reduce the vertical extent of turbines by partially screening some turbine towers which would reduce their prominence when compared to the nearby operational Clyde Wind Farm.
- A5.6.15 The cumulative ZTV for Scenario 1 shown on Map A5.3.6 shows the theoretical extent of visibility of operational wind farms within the WLA. This indicates extensive theoretical visibility across the western half of the WLA, the exception being the more enclosed glens, cleuchs and watercourses, particularly on the western side of the WLA. The introduction of the Proposed Development would lead to a slight increase in visibility of turbines within the WLA. However, this would be very limited to cleuchs on the south western side near Arthur's Seat, Billscleuch Moor as well as the upper slopes of Crown of Scotland and Garelet Dod.





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As mentioned previously, no physical attributes of the WLA would be affected by the Proposed Development. Potential effects would be on the perceptual qualities of the WLA in association with views beyond its boundary and how the perception of wildness and tranquillity is affected. The size and scale of the change would be small in comparison to the panoramic views obtained from the summits and upper hill slopes within the WLA. The Proposed Development would be viewed beyond an area of forestry with nearby wind turbines which already influences the perceptual attributes of wildness in the areas predicted to receive visibility of the proposed turbines. This would be experienced at distances ranging between 9.2 km and 19.7 km with the changes being long term but reversible, resulting in a **Slight** magnitude of change for Scenario 1.

Scenario 1 - Aviation Lighting Assessment

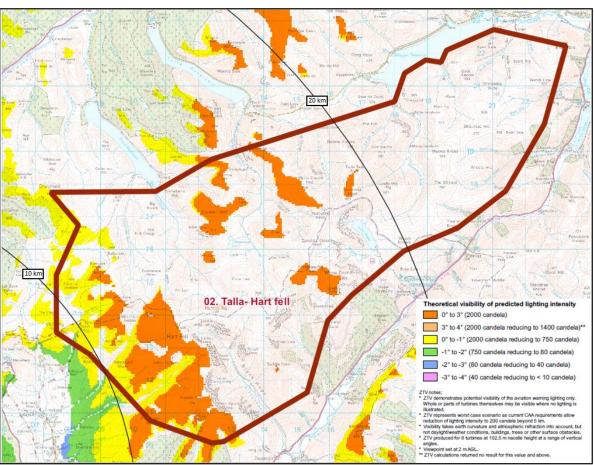
- A5.6.17 The aviation lighting ZTV shown on Figure 5.4 and Map A5.3.7 shows the extent of theoretical visibility and intensity of turbine lighting in the WLA from the Proposed Development. The extent of theoretical visibility of aviation lighting is broadly similar to that shown on Map A5.3.5, albeit a slightly smaller visual envelope as a result of aviation lighting being installed on 8 of the 17 turbines. This would occur on the summits and south west facing slopes around Hart Fell, extending to the north west and south east, and from the summits of Garelet Dod, White Coombe and Molls Cleuch Dod. No other turbines are lit within the vicinity of the WLA.
- A5.6.18 The intensity of lighting within the area identified would predominantly be 200 candela during periods of good visibility, increasing to 2000 candela during poor visibility. Lower slopes in the south west of the WLA are also predicted to receive between 2000 and 750 candela intensity lighting during periods of poor visibility, dropping to 200 75 during clear visibility.





A5.6.19 The lit turbines would be viewed in the existing artificial lighting baseline described in Step 2 and would not be as bright as other artificial lighting experienced in the surrounding area.

Map A5.3.7: Talla – Hart Fells WLA with ZTV Overlay

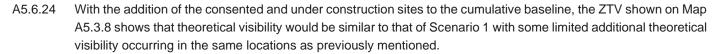


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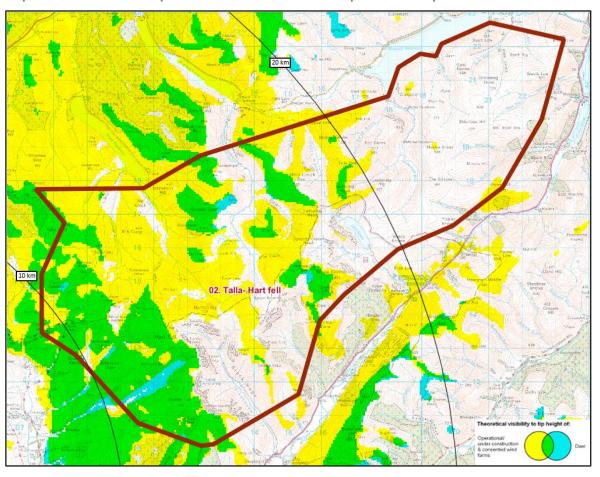
- A5.6.20 At night-time, the Proposed Development would introduce 8 additional sources of lighting into the landscape. This would be viewed within the existing lighting context described in Step 2 with the intensity being controlled, unlike the other light sources identified. The magnitude of change is considered to be **Slight** due to the areas predicted to be affected by the ZTV already experiencing artificial lighting from the surrounding area.
- A5.6.21 Aviation lighting would be long term, albeit only switched on during periods of low visibility or during the hours of darkness, and reversible.

Cumulative Scenario 2

- A5.6.22 As mentioned in Step 2, there are several consented wind farms within 10 km of the WLA in the vicinity of Clyde Wind Farm (Crookedstane & Lion Hill), and Glenkerrie Wind Farm (Glenkerrie Extension). Additionally, Whitelaw Brae has also been consented and is located approximately 750 m from the north western boundary of the WLA. These developments as well as others in the wider landscape form the basis of Scenario 2 Cumulative Baseline.
- A5.6.23 The addition of these sites will extend turbine development closer to the WLA in the form of Whitelaw Brae Wind Farm and add an additional 8 turbines to Clyde Wind Farm appearing as one development overall. The addition of the Proposed Development into this baseline would result in an additional wind farm located between Clyde and Harestanes / Minnygap Wind Farms



Map A5.3.8: Scenario 2: Operational / Consented with Proposed Development



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However, not all of the developments would be viewed at the same time due to nature of the landform which provides some screening, especially in the case of Crookedstane and Lion Hill which would be partially screened by topography. None of the consented schemes exceed 150 m in tip height and would not require aviation lighting. Magnitude of change would remain as **Slight** for Scenario 2.

Cumulative Scenario 3

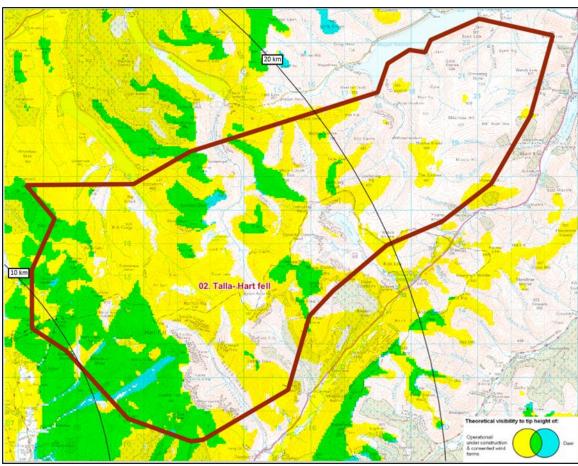
- A5.6.26 The addition of Cumulative Scenario 3 to the baseline would result in several wind farms being added to the baseline scenario. In relation to the WLA, Scoop Hill is the closest of these lying approximately 8.0 km to the south. Whilst the visual envelope of the Proposed Development would be limited within the WLA, it would be very prominent from the south western extent of the WLA. From here, the turbines would be concentrated with significant stacking, and due to landform screening, the intervening landscape would appear close to Hart Fell. The Scoop Hill turbines would also require aviation lighting as a result of exceeding 150 m tip height although it is unclear as to which method will be applied such as a reduced lighting scheme, or transponder if authorised for use by the CAA for UK airspace.
- A5.6.27 The introduction of the Proposed Development to Scenario 3 baseline would result in an increase in turbines viewed from WLA. The Proposed Development would infill a gap between Clyde and Harestanes / Minnygap Wind Farms whilst retaining a gap between the operational developments and appearing separate. The cumulative ZTV





shown on Map A5.3.9 shows a broadly similar visual envelope experienced in the WLA to Scenarios 1 and 2. Additional theoretical visibility is predicted in a few limited areas as mentioned in Scenario 1.

Map A5.3.9: Scenario 2: Operational / Consented with Proposed Development



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A5.6.28 The addition of the Proposed Development would not lead to an increase in magnitude of change due to the Proposed Development being located in an area between two wind farms and beyond forestry which already influences the perception of wildness in the areas predicted to receive theoretical visibility. Therefore, magnitude of change would remain as **Slight**.

Scenario 3 - Aviation Lighting Assessment

- A5.6.29 The Scoop Hill application does not make specific reference to a reduced lighting scheme; therefore, this assessment has assumed that all turbines would be lit with 2000/200 candela aviation lights. This would result in the introduction of artificial lighting into the landscape but would only affect a small area in the south west of the WLA.
- A5.6.30 The introduction of the Proposed Development into this baseline would increase the number of lights visible from the WLA. However, a reduced lighting scheme of 8 turbines relatively spaced apart would be implemented and occupy a small part of the overall view where there is an existing baseline of aviation lighting associated with Scoop Hill, the latter being more concentrated on account of the number of turbines lit which would be visible from the WLA despite the skyglow emitting from Moffat in the intervening landscape. Magnitude of change is considered to be Slight.

Step 5: Judge the significance of the effects

A5.6.31 Table 5.3.3 provides a summary of effects and significance for each of the baseline scenarios considered including the effects from aviation lighting.

Table A5.3.3: Overall WLA Effects Summary

Scenario	Sensitivity	Magnitude of Change	Effect	Significance
Scenario 1	High	Slight	Moderate	Not Significant
Scenario 1 – Aviation Lighting	High	Slight	Moderate	Not Significant
Scenario 2	High	Slight	Moderate	Not Significant
Scenario 2 – Aviation Lighting	High	Slight	Moderate	Not Significant
Scenario 3	High	Slight	Moderate	Not Significant
Scenario 3 – Aviation Lighting	High	Slight	Moderate	Not Significant

A5.7 CONCLUSION

- A5.7.1 The overall effect of the Proposed Development on the Talla Hart Fells WLA is considered to be not significant for Scenarios 1, 2 and 3. Overall, the assessment has demonstrated that the wildest parts of the WLA would not be affected by the Proposed Development on account of the level of containment which reduces the extent of intervisibility and would not affect the perceptual qualities of these areas. The remaining part of the WLA is influenced by nearby operational schemes such as Clyde Wind Farm (Scenario 1) which will be reinforced once the consented schemes such as Whitelaw Brae (Scenario 2) are constructed as well as the speculative scenario of application sites (Scenario 3) such as Scoop Hill.
- A5.7.2 On this basis, it is considered that the Proposed Development would not affect the integrity of the Talla Hart Fells WLA, as measured by the overall intactness of its wildness qualities.

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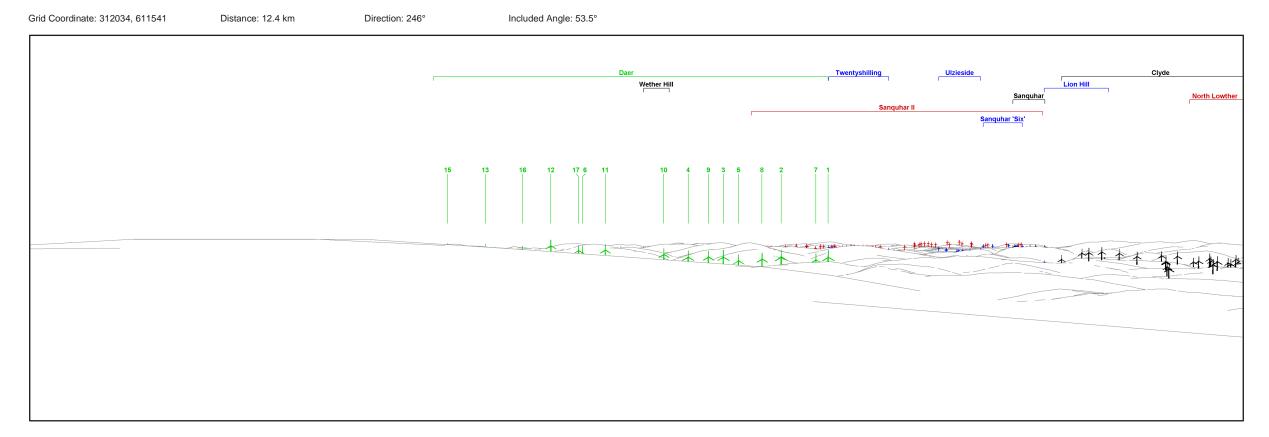
Wirelines A5.3





Wireline A5.3.1: Hart Fell

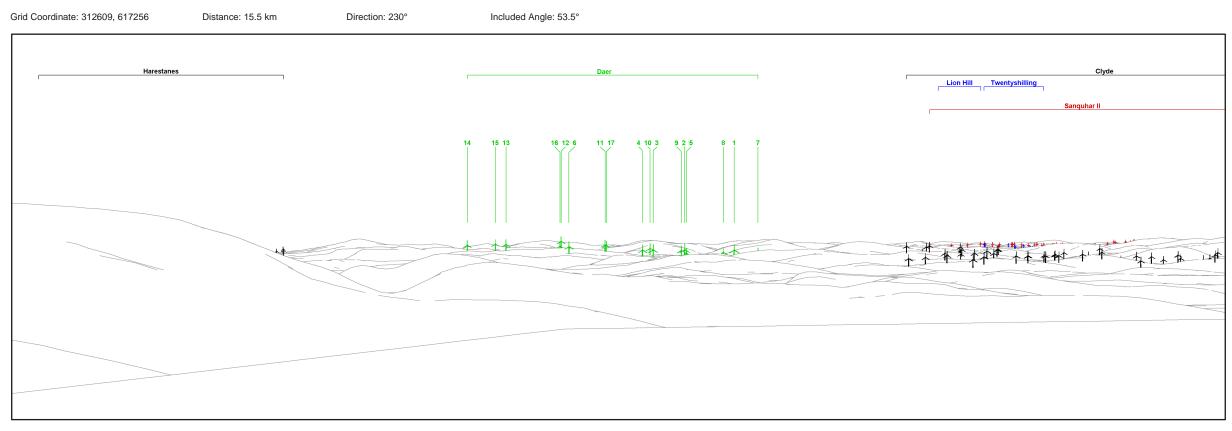
Wireline A5.3.2: Sawtte Fell







Wireline A5.3.3: Garelet Dod



Wireline A5.3.4: Molls Cleuch Dod

Patrolinates 315129, 617936 Distance: 18.0 km Direction: 233* Included Angle: 53.5*

| Management | Dear | Wester New | Clyde | Constitutions | Constitutions | Clyde | Constitutions | Clyde | Constitutions | Clyde | Constitutions | Constitutions | Clyde | Clyde





Wireline A5.3.5: White Coomb

