

# Appendix 6.2a - Assessment of Effects on Wild Land Area 34 (Reay-Cassley)

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# Appendix 6.2a - Assessment of Effects on Wild Land Area 34 (Reay-Cassley)

## Introduction

WLA 34 (Reay-Cassley) lies a minimum of around 6.3 km to the west of the Proposed Development, as shown on Figure 1. The Scottish Natural Heritage (SNH) 'Description of Wild Land Areas' (2017) for WLA 34 (Reay-Cassley) provides a useful initial brief overview of this WLA:

*"This large Wild Land Area (WLA) extends 560 km<sup>2</sup> across north west Sutherland from Scourie in the north to Rosehall in the south. In the north the WLA mainly comprises cnocan moorland, with a high and irregular mountain range within the central section, and simpler peatland slopes in the south."*

The following assessment follows guidance set out in NatureScot's 'Assessing Impacts on Wild Land Technical Guidance' (September 2020) with reference to the SNH 'Description of Wild Land Areas' (2017).

The WLA description lists four key attributes/qualities (which have been numbered 1 to 4 for the purpose of this assessment) for WLA 34 (Reay-Cassley):

- 1. *"A range of large, irregular, rocky mountains with steep, arresting slopes and a variety of lochs and lochans, possessing a strong sense of naturalness, remoteness and sanctuary."*
- 2. *An awe-inspiring, broad scale expanse of cnocan in which there is a complex pattern of features at a local level that contribute to the sense of naturalness and sanctuary."*
- 3. *A variety of spaces created by irregular landforms in which there is perceived naturalness, as well as a strong sense of sanctuary and solitude."*
- 4. *Extensive, elevated peatland slopes whose simplicity and openness contribute to a perception of awe, whilst highlighting the qualities of adjacent mountains."*

These key attributes/qualities (hereafter referred to as Wild Land Qualities, or WLQs) form the basis of the wild land assessment as they express the distinctive and specific wildness qualities that are found in this WLA. The WLA description provides further information on each of these WLQs as an explanation of how the various aspects of the landscape contribute to the WLQ.

## 'Assessing Impacts on Wild Land Technical Guidance' (2020)

The NatureScot technical guidance (2020) sets out the suggested approach to the assessment of effects on wild land. As noted in paragraph 4 of the guidance, the assessment methodology broadly follows that of GLVIA3, and is based around the following five stages (as described in Table 1 of NatureScot guidance):

- *"Step 1 - Define the study area and scope of the assessment;*
- *Step 2 – Verify the WLA baseline;*
- *Step 3 – Assess the sensitivity of the qualities;*
- *Step 4 – Assess the magnitude of the effects; and*
- *Step 5 – Judge the significance of effects"*

Paragraph 13 of the guidance notes that *"the assessment approach...should be:*

- *concise and proportionate, focused on likely significant effects on the qualities;"*

While the wild land assessment methodology broadly follows that set out in GLVIA3, there are several points that are beneficially explained prior to the assessment itself, as discussed below.

### **The Status of WLAs**

The status of WLAs is clearly set out in paragraph 8; *“WLAs have not been identified on scenic grounds and are not a statutory designation.”*

There is also an acceptance (paragraph 9) that WLAs are not ‘wilderness’ and that human influences can and do form part of the baseline character of WLAs:

*“...Whilst the WLA map identifies areas where wildness is most strongly expressed, these are not ‘wilderness’, empty of any human activities or influence. They reflect Scotland’s long history of past occupation and current use and management, albeit that evidence of such is often light and limited in extent.*

An important phrase in this paragraph is *“light and of limited extent”* as this presents a measure with which to assess the existing external influence of development, and operational wind farms in particular, on the WLA, and indicates to what degree this influence can be accommodated within an area that is considered to be ‘wild land’.

### **The Need for a Wild Land Assessment**

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

*“This guidance should only be applied to proposals whose nature, siting, scale or design are likely to result in a significant effect on the qualities of a WLA. Given this, assessments are more likely for proposals within a WLA, and are less-likely for proposals outwith the WLA.*

*An assessment will only be required where it has been deemed necessary by the competent authority. You are encouraged to discuss the need for an assessment with the competent authority at an early stage.”*

While the Proposed Development lies outwith this WLA, both NatureScot (formerly SNH) and The Highland Council (THC) have requested that a wild land assessment be carried out.

It is also important to note that, according to NatureScot guidance, effects on WLAs can only be experienced within WLAs and not on the area surrounding them. Paragraph 3 of the guidance notes that *“This guidance sets out a methodology and general principles for assessing the impact of development and other proposals on WLAs, as they are experienced from within the WLA, not from outwith it.”*

### **Cumulative Effects**

NatureScot guidance notes the following in relation to cumulative effects on WLAs.

*“The potential for cumulative effects. Other proposals (either of the same or different type) which are likely to contribute to significant cumulative effects should be identified in discussion with the decision maker. The principles within our guidance document Assessing the cumulative impact of onshore wind energy developments specific to onshore wind energy development can be applied to other development and should aid this assessment.”* (paragraph 16)

And *“In judging significance, the following factors should be considered.*

- *The nature and extent of any likely cumulative effects.”* (paragraph 33)

There are several operational wind farms – Achany, Rosehall and Lairg Estate - within around 8 km of the southern end of the WLA, as shown on Figure 5a. These wind farms are relevant to the assessment as they exert some baseline influence on the WLA and are referred to in the WLA description. More distant operational/under construction wind farms at Kilbraur and Gordonbush, 25 km and 32 km away respectively, have considerably less influence on the WLA due to very limited, intermittent visibility and distance.

Consented wind farm sites at Braemore and Lairg II, 5.1 km and 8 km away respectively to the south-east of the WLA and at Creag Riabhach, approximately 10 km to the north-east, are also relevant. These wind farms can be seen on Figure 5b.

It is relevant to note that Achany, Rosehall and Lairg Estate wind farms were operational at the time of the SNH site assessment of this WLA, which was carried out September 2013.

Cumulative effects are discussed in Section 10 of this Appendix.

## Methodology for Assessing Effects on Wild Land Areas

### **Introduction**

As noted in NatureScot guidance, the wild land assessment methodology broadly follows that of GLVIA3, and is based around the five stages described in Table 1 of the guidance.

Steps 1 and 2 do not require detailed explanation of methodology, and are carried out subsequently in this Appendix. The methodology for Steps 3, 4 and 5 is described below. These steps are assessed in accordance with GLVIA3 and largely follow OPEN's methodology, which is described in full in Appendix 6.1.

In this methodology, WLAs are considered as landscape character receptors rather than visual receptors. This is because the landscape of the WLA is a resource in itself and effects are assessed in terms of the effects on the WLQs of the WLA, as per NatureScot guidance, and not in terms of the effects on views gained by people who may be within the WLA.

### **Step 3: Assess the Sensitivity of WLA Qualities**

NatureScot guidance summarises this step as follows:

*“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”.*

### **Value of Wild Land Areas**

In applying GLVIA3 to the assessment, and as noted by NatureScot, it is necessary to attribute a value to the receptor (classified as high, medium or low, or interim levels, as described in Appendix 6.1). The value attributed to nationally important designations, including National Parks (NP) and National Scenic Areas (NSA) is normally found to be at the upper end of the scale, or high.

Wild land is not an environmental designation and is not statutorily protected in the way that NPs and NSAs are for their scenic qualities. It is, however, recognised in SPP and planning policy as a nationally important mapped resource, which should be afforded protection for its wildness qualities.

In order to apply objectivity to the attribution of value in wild land areas, it is helpful to have regard to the weighting that SPP gives to it. Whereas in SPP Table 1: Spatial Frameworks Scottish Ministers place NSAs and NPs in the Group 1 category, Wild Land Areas are identified as a Group 2 consideration, recognising the difference in their respective values. As a matter of national policy Wild Land is therefore less highly valued than NSAs and NPs.

SNH also helpfully provides some further guidance on this in its publication Spatial Planning for Onshore Wind Turbines – Natural Heritage Considerations, Guidance (June 2015). Annex 1 to this document provides advice on the potential landscape objectives that may be applicable in different landscapes within Scotland in terms of their ability to accommodate wind farms, suggesting that some landscapes should be subject to a higher level of protection than others.

Annex 1 places WLAs in the middle category, where some landscape ‘accommodation’ of wind farms may be considered appropriate, noting that:

*“Within local landscape designations and Wild Land Areas, the degree of landscape protection will be less than for National Scenic Areas. In these areas, an appropriate objective may be to accommodate windfarms, rather than seek landscape protection.”*

WLAs are therefore considered to have a lower inherent baseline value, in landscape terms, than nationally designated landscapes. In the terms of GLVIA3 and OPEN’s methodology, it is reasonable to attribute a theoretical medium-high value to WLA 34 (Reay-Cassley). However, the western part of the WLA falls within the Assynt-Coigach NSA, and this specific part of the WLA is considered to have a high value due to its NSA status.

These levels of value are combined with individual assessments of susceptibility (described below) to inform the overall assessment of sensitivity within the WLA.

### **Susceptibility within Wild Land Areas**

Susceptibility relates to the nature of the landscape receptor and how susceptible it is to the potential effects of the Proposed Development, as described in GLVIA3. Susceptibility varies across the WLA depending on the nature and strength of the WLQs, the particular perceptions that are experienced in different areas, and in the context of different external and internal influences.

OPEN’s methodology assesses the susceptibility of landscape character receptors through a series of three criteria, as set out in Appendix 6.1. Two of these are relevant to the assessment of susceptibility of WLQs:

- The specific nature of the Proposed Development: the susceptibility of landscape receptors is specific to the change arising from the particular development that is proposed, including its individual components and features, and its size, scale, location, context and characteristics.
- Landscape character: the key characteristics of the existing landscape character of the receptor are considered in the evaluation of susceptibility as they determine the degree to which the receptor may accommodate the influence of the Proposed Development (in the wild land assessment this criterion relates to the documented WLQs, physical attributes and perceptual responses of the WLA).

The third criterion, ‘landscape association’, is not identified as a separate factor in the judgement of susceptibility within WLAs; this is because the WLQs anyway make specific mention of landscape association where it is a relevant factor, and it is therefore not necessary to include it again when considering susceptibility.

A useful tool in the assessment of the levels of susceptibility across the WLA is SNH’s 2014 analysis of the data that was gathered in order to inform the identification of WLAs. SNH gathered data for each of the ‘physical attributes’ of wild land and used these to create a ‘relative wildness map’. The ‘Jenks Natural Breaks Optimisation method’ was then used to identify the natural breaks in the distribution of the relative wildness data in order that levels of wildness could be identified and mapped. As a result, eight classes of wildness were identified, with 8 being the highest and 1 being the lowest.

### **Step 4: Assess the Effects**

NatureScot guidance notes this step as follows in Table 1:

*“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.*

OPEN’s methodology for assessing magnitude of change on landscape character receptors is carried out through the application of a set of criteria as set out in Appendix 6.1.

Broadly, the magnitude of change that the Proposed Development will have on landscape receptors is assessed in terms of the size or scale of the change, the geographical extent of the area influenced and its duration and

reversibility. The key elements of the Proposed Development that will influence the level of change on landscape character are the movement, form, material, colour and scale of the turbines, although infrastructure is also considered.

### **Step 5: Judgement of the Significance of Effects**

NatureScot guidance summarises this step as follows in Table 1:

*“Conclude on the overall significance (taking into account any mitigation), in terms of the study area and where relevant the wider WLA.”*

On the basis that the NatureScot guidance is based on the principles of GLVIA3, OPEN’s methodology for the assessment of the significance of effects (as described in Appendix 6.1) has also been used for the assessment of the significance of effects on wild land. OPEN’s methodology describes the significance of effects as quoted below.

*“A significant effect will occur where the combination of the variables results in the Proposed Development having a defining effect on the view or receptor. A not significant effect will occur where the effect of the Proposed Development is not definitive, and the view or receptor continues to be characterised principally by its baseline characteristics. In this instance, a not significant effect would indicate that the Proposed Development may have an influence, but this influence will not be a defining one.”*

The following sections of this report assess the effects of the Proposed Development on WLA 34 (Reay-Cassley) following the five steps as described by SNH.

## **Step 1: Define the Study Area and Scope of the Assessment**

NatureScot guidance summarises this step as follows:

*“Identify a study area appropriate to the scale of the proposal and extent of likely significant effects on the WLA.*

Paragraph 16 of the guidance notes that:

*“The rationale for the selection of the study area and scope of the assessment should be clearly stated and consider the following.*

- *The extent of visibility and recognised routes / movement through the WLA. The scale of the proposal may not equate to the extent of effects (for example, a large proposal where visibility is limited to part of the WLA, a more focused study area may be appropriate).*
- *The wild land qualities likely to be significantly affected. The focus of the assessment should be on the qualities likely to be affected rather than where the proposal is located.*
- *The potential for cumulative effects.”*

The study area for the wild land assessment is discussed below in relation to these three considerations.

The ZTVs (Figures 1 and 2) show localised and intermittent theoretical visibility from the WLA, gained largely from the south-eastern ‘leg’ of the WLA, which forms a ridge between Glencassley and Loch Shin.

Viewpoints 13 and 19 are at the southern and northern ends of this leg respectively. There is also some very intermittent theoretical visibility from the mountainous central part of the WLA (including Viewpoint 16) and from the high ridge at Ben an Eoin, in the south-western leg.

Theoretical visibility is gained from a minimum of 6.3 km (from the western side of Loch Shin, near Ariscaig) up to a maximum of around 34 km away, near Loch Glencoul.

In relation to the first consideration, the WLA description for WLA 34 mentions several “*recognised routes/movement through the WLA*”. These are listed below along with a description of the theoretical visibility that may be gained from them:

- **Ben More Assynt and Conival:** distant (26.4 km away) visibility from the summit of Ben More Assynt, as seen in Viewpoint 16 and Conival (approximately 27.8 km away); negligible visibility from the principal route to these Munros (which comes in from Inchnadamph, in the west);
- The three **Corbetts (Ben Leoid, Breabag and Glas Bheinn):** distant visibility from Ben Leoid (29.6 km) and Glas Bheinn (34.3 km away), no visibility from Breabag;
- **Lochs Gleann Dubh and Glencoul:** no visibility;
- **Eas a’ Chùal Aluinn waterfall:** no visibility at the waterfall; a very short stretch of theoretical visibility (approximately 400 m long) from over 34 km away on the principal path to the waterfall;
- the **Bone Caves** near Inchnadamph: no visibility from the caves or the principal, waymarked route to them; and
- **Cape Wrath Trail:** no visibility.

This indicates that of the notable routes and locations that people may visit within the WLA, the great majority will gain no visibility of the Proposed Development, as shown on the ZTVs. Where there is visibility, this is gained from a minimum of 26 km away; this is at Ben More Assynt, where the Proposed Development is assessed to have a not significant effect on the view. It can therefore be concluded that the Proposed Development will not have a significant effect on views from any of the listed “*recognised routes/movement through the WLA*”.

The second point noted in NatureScot guidance as being relevant in the “*rationale for the selection of the study area and scope of the assessment*” is consideration of the “*wild land qualities likely to be significantly affected*”.

This WLA has four WLQs. These are described below along with a judgement as to whether or not they may be significantly affected,

**1. “A range of large, irregular, rocky mountains with steep, arresting slopes and a variety of lochs and lochans, possessing a strong sense of naturalness, remoteness and sanctuary.”**

This WLQ applies primarily to the central, mountainous part of the WLA. Fieldwork has indicated that Maovally (Viewpoint 19) forms something of a cusp between this mountainous landscape and the considerably more gentle, low-lying peatland slopes that cover the south-eastern leg of the WLA although this is of course not a clear-cut boundary. The contrast between the south-eastern leg and the mountainous landscape can be seen in the photograph for Viewpoint 19.

The “*recognised routes/movement through the WLA*” listed in the WLA description are all noted in relation to this WLQ and, as described above, will gain no, or distant, visibility of the Proposed Development.

On this basis, and using Maovally as a rough guide, it can be approximated that this first WLQ of the WLA is found primarily in the central part of the WLA, which lies a minimum of over 20 km from the Proposed Development.

The Proposed Development may have some effect on this WLQ but this does not have potential to be significant due to the very intermittent and distant visibility that will be gained.

**2. “An awe-inspiring, broad scale expanse of cnocan in which there is a complex pattern of features at a local level that contribute to the sense of naturalness and sanctuary.”**

As noted in the WLA description, this WLQ is found in the northern part of the WLA, which is shown on the ZTV to gain no visibility of the Proposed Development, and it will therefore not affect the attributes/responses that comprise this WLQ.

This WLQ will not be affected by the Proposed Development.

**3. “A variety of spaces created by irregular landforms in which there is perceived naturalness, as well as a strong sense of sanctuary and solitude.”**

This WLQ expresses how the landform of mountains, cnocan and peatlands combine to create the WLA as a whole and demonstrates how the varied physical elements – primarily landform - of the WLA can lead to perceptual responses.

The location of the Proposed Development outwith the WLA means that it will not affect the physical elements of the WLA. It is also unlikely to notably alter the relationship between the various irregular landforms of the WLA due to its external, intermittent and relatively distant influence, particularly given the small scale of the Proposed Development. The location of the Proposed Development to the south-east of the WLA also ensures that it will not interfere in views *between* the various parts of the WLA but will always be seen across the peatland slopes, which are the least irregular, varied and rugged part of the WLA, but instead are broadly simple, uniform and often exposed with long, open views.

Notably, the Proposed Development will not affect the attributes described in the second paragraph of this WLQ as it will not be visible from within the enclosed “...corries, basins or shelves, [where] the surrounding shielding landform often leads to a sense of being hidden, contributing to a strong sense of seclusion and sanctuary. It will also not be seen from parts of the WLA that are “...surrounded by high, steep and towering slopes” and will thus not affect the “...strong sense of awe...associated strong sense of place and tranquillity...and strong sense of solitude”.

The attributes/responses that comprise this WLQ will not be significantly affected by the Proposed Development.

**4. “Extensive, elevated peatland slopes whose simplicity and openness contribute to a perception of awe, whilst highlighting the qualities of adjacent mountains.”**

The peatland slopes that comprise this WLQ are found “To the east and south of Ben More Assynt [where] there is an extensive area of elevated peatland slopes that form relatively low, broad ridges extending from either side of Glen Cassley”.

These slopes cover the south-eastern leg of the WLA, where the Proposed Development has the highest level of visibility (albeit intermittent and partly hub height only) from between Ariscaig in the south and around Maovally in the north, between around 6.3 km and 20 km away.

There is potential for the Proposed Development to have an effect on the attributes/responses that comprise this WLQ.

The third point noted in NatureScot guidance as being relevant in the “*rationale for the selection of the study area and scope of the assessment*” is consideration of the “*The potential for cumulative effects*”. The cumulative wind farm development that is most relevant to the Proposed Development and this WLA - Achany, Rosehall, Lairg Estate, Braemore, Lairg II and Creag Riabhach - is concentrated around the south-eastern leg of the WLA (see Figures 5a and 5b).

## Identification of the Study Area

The considerations described above indicate that the study area for the assessment of effects on this WLA should cover the south-eastern leg of the WLA. This area is specifically covered by the WLQ (WLQ 4) that has potential to be most affected by the Proposed Development; is the part of the WLA that lies at closest proximity to the Proposed Development and gains the highest level of theoretical visibility; and is the part of the WLA that is most likely to be affected by potential cumulative effects.

Other parts of the WLA have qualities that will not be significantly affected by the Proposed Development, gain very limited and distant theoretical visibility, and do not have potential for significant cumulative effects due to the absence of other wind farms with which the Proposed Development may combine to result in significant cumulative effects.

The study area is shown on Figures 1 – 5.

## Step 2: Establish the Baseline

NatureScot guidance summarises this step as follows in Table 1:

*“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.”*

The baseline study is informed by SNH’s description of the WLA, the mapping of the eight classes of wildness (SNH, 2014), OPEN’s site visits, and LVIA Viewpoints 13 and 19, which illustrate the outlook across the WLA from the northern and southern parts of the study area.

It is important to note that while LVIA Viewpoints 13 and 19 provide a useful illustration of the views that can be gained from within the study area, the assessment of effects on viewpoints and on wild land areas is carried out separately and according to specific methodologies that vary in some respects. The assessment of effects at Viewpoints 13 and 19 should therefore not be considered in relation to the assessment of effects on wild land, and the viewpoints have been referenced simply to provide an illustration of views within the study area.

This step involves a review of the strength of attributes and responses and their contribution to the identified WLQS of the area. These are verified against the WLA description, noting that the strength to which the WLQS are expressed will vary in different parts of the WLA. In this case, it has been ascertained in Step 1 that the Proposed Development has potential to significantly affect one of the WLQS (WLQ 4) and this, along with other factors, has been taken into consideration in the identification of the study area.

This baseline section therefore focusses on the WLQ 4 of WLA 34 (Reay-Cassley). This is ***“Extensive, elevated peatland slopes whose simplicity and openness contribute to a perception of awe, whilst highlighting the qualities of adjacent mountains”***.

Table 1 below lists the physical attributes and perceptual responses of the study area and their contribution to WLQ 4.

**Table 1 – Physical Attributes and Perceptual Responses of WLQ 4**

Physical Attribute/ Perceptual Response	Strength of Physical Attribute/Perceptual Response and Contribution to Wild Land Quality (as described in WLA description)	OPEN Comment/ Subsequent Change to Baseline
Physical Attribute		

Physical Attribute/ Perceptual Response	Strength of Physical Attribute/Perceptual Response and Contribution to Wild Land Quality (as described in WLA description)	OPEN Comment/ Subsequent Change to Baseline
High degree of perceived naturalness	<p>Referred to in the WLA description as follows:</p> <ul style="list-style-type: none"> <li><i>The seemingly random pattern of these elements [lochans, bogs, peat hags, burns and rock outcrops] also contributes to the sense of naturalness...</i></li> </ul>	<p>The elements mentioned in the SNH description do contribute to a degree of perceived naturalness. However, there are elements of cultivated vegetation in this WLO, including woodland and forestry as well as cropping of grass.</p> <p><b>Expressed to a moderate-high degree in the study area.</b></p>
<p>The lack of modern human artefacts or structures</p> <p>and</p> <p>Little evidence of contemporary land uses</p> <p>NB These two physical attributes have been described together as they are closely aligned and have a high level of crossover in the WLA description.</p>	<p>Referred to in the WLA description as follows:</p> <ul style="list-style-type: none"> <li><i>From the peatland slopes within the south of the WLA, human artefacts and contemporary land use can be clearly seen extending around the south east, south and south western edges. [These] include extensive estate buildings, conifer plantations, roads, a hydro-electric scheme (with above surface pipes) and wind farms outside the WLA and telecom mast and grazing within the area. These elements tend to be visible over long distances due to the openness and simplicity of the peatland. They are also clearly noticeable within elevated views from the adjacent mountains and ridges to the north and west.</i></li> <li><i>Around the slopes to the south west, south and south east, there are...some wind farms upon elevated peatland...Although located outside the WLA, their extensive size and/or cumulative effects appear to encroach upon the wild land qualities...</i></li> <li><i>Within the upper stretches of Glen Cassley that lie outside the WLA, human elements tend to have limited effects where they appear isolated, small scale, concentrated and low-key in siting and design. In contrast, they seem more encroaching upon the wild land qualities where large in scale, extensive or are more numerous, and thus lead to cumulative effects, especially given the central position of the glen in relation to the WLA that extends to both the east and west of this.</i></li> <li><i>Duchally hydro-electric scheme, within the upper reaches of the glen, has a strong influence on surrounding wild land qualities...include prominent and incongruous pipelines that cross the</i></li> </ul>	<p>OPEN considers that this description does not make clear the level of human artefacts and contemporary land use found within the part of the WLA that is covered by the study area. The description implies that hydro-electric infrastructure lies outwith the WLA, while in fact there is hydro-electric infrastructure within the study area, including masts and tarmacked vehicular access tracks (accessed by Google StreetView).</p> <p>It is also notable that while the SNH description refers to infrastructure in Glen Cassley it does not allude to the human artefacts and contemporary land uses that are found along Loch Shin, to the north-east of the study area. This includes hydro-electric infrastructure, extensive coniferous forestry, houses, a hotel, A-class roads, and a fish farm, which are in some cases less than 200m away from the WLA.</p> <p>It is also relevant that subsequent to the production of the WLA description, consent has been granted for wind farms at Braemore, Lairg II and Creag Riabhach, all of which lie within approx. 10 km of the study area.</p> <p><b>Expressed to a moderate degree in the study area.</b></p>

Physical Attribute/ Perceptual Response	Strength of Physical Attribute/Perceptual Response and Contribution to Wild Land Quality (as described in WLA description)	OPEN Comment/ Subsequent Change to Baseline
	<i>upper glen slopes, as well as a long access road and powerlines extending over the elevated peatland slopes at Maovally...</i>	
Landform which is rugged, or otherwise physically challenging	Referred to in the WLA description as follows: <ul style="list-style-type: none"> <li>• <i>Although the peatland slopes are not very high in elevation...they are rugged at a local level due to a mix of lochans, bogs, peat hags, burns and rock outcrops</i></li> </ul>	While the peatland slopes in the study area are considered to have some ruggedness this is localised, as acknowledged by SNH, and this reduces the strength of this physical attribute.  <b>Expressed to a moderate/high degree in the study area.</b>
Remoteness and / or inaccessibility	No specific reference	The SNH description does not make any specific reference to this physical attribute in relation to the study area. However, the presence of human artefacts and contemporary land uses within the peatland slopes, and in particular the extensive tracks that give access to this area (including high-grade vehicular tracks), reduce a sense of remoteness or inaccessibility, as do the public roads that serve the surrounding area.  <b>Expressed to a moderate degree in the study area.</b>
<b>Perceptual Response</b>		
A sense of sanctuary or solitude	No specific reference	The SNH description does not make specific reference to this perceptual response in relation to the study area. The relatively narrow extent of the peatland slope 'legs' of the southern part of the WLA, the open, exposed nature of the landscape and the presence of tracks and other internal/ external human influences lead to a lack of a sense of sanctuary or solitude.  <b>Expressed to a moderate degree in the study area.</b>
Risk or, for some visitors, a sense of awe or anxiety	Referred to in the WLA description as follows: <ul style="list-style-type: none"> <li>• <i>The...openness and high exposure of the area heightens the sense of risk.</i></li> </ul> It is noted that WLQ 4 is titled: <ul style="list-style-type: none"> <li>• <i>"Extensive, elevated peatland slopes whose simplicity and openness contribute to a perception of awe, whilst</i></li> </ul>	<b>Expressed to a moderate/high degree in the study area.</b>

Physical Attribute/ Perceptual Response	Strength of Physical Attribute/Perceptual Response and Contribution to Wild Land Quality (as described in WLA description)	OPEN Comment/ Subsequent Change to Baseline
	<p><i>highlighting the qualities of adjacent mountains”.</i></p> <p>The peatland slopes are also noted in the description as contributing to perceptual responses found elsewhere in the WLA:</p> <ul style="list-style-type: none"> <li>• <i>“...these simple slopes highlight the contrasting and distinctive aspects of complex and high mountains to the north and west, emphasising the awe-inspiring qualities of these.”</i></li> </ul>	
Perceptions that the landscape has arresting or inspiring qualities	<p>Referred to in the WLA description as follows:</p> <ul style="list-style-type: none"> <li>• <i>The vast scale of these simple peatland slopes, in combination with a strong sense of openness and exposure, appears arresting.</i></li> </ul>	<b>Expressed to a moderate/high degree in the study area.</b>
Fulfilment from the physical challenge required to penetrate into these places	<p>Referred to in the WLA description as follows:</p> <ul style="list-style-type: none"> <li>• <i>...the peatland slopes...are rugged at a local level...that make the slopes physically challenging to cross.</i></li> </ul>	<p>The study area is accessed by several public roads, including the road that runs up Glen Cassley, and is crossed by good quality tracks. Therefore while parts of the <i>peatland slopes</i> are challenging to access, this level of access reduces the strength of this perceptual response to a medium level. While the peatland itself can be challenging to cross, the satisfaction and sense of accomplishment that arises from the physical effort required to traverse the slopes is limited by the generally relatively low-level and undramatic nature of the landform.</p> <p><b>Expressed to a moderate degree in the study area.</b></p>

This step of the assessment carries out a review of the baseline physical attributes and perceptual responses of the study area and their contribution to the identified WLQs of the area, as identified in the WLA description. This review indicates that in relation to some attributes and responses the description included within the WLA description is considered to be broadly up-to-date, including “*high degree of perceived naturalness*”, “*landform which is rugged, or otherwise physically challenging*”, “*risk or, for some visitors, a sense of awe or anxiety*”, and “*perceptions that the landscape has arresting or inspiring qualities*”. These attributes/responses are expressed to a moderate/high degree in the study area.

However, in relation to two attributes – “*the lack of modern human artefacts or structures*” and “*little evidence of contemporary land uses*”, OPEN considers that the WLA description is not accurate, both in terms of the baseline as it was at the time of the production of the WLA description and in subsequent changes to the baseline. In OPEN’s view, these two attributes are apparent to only a limited degree in the study area. OPEN also considers that the response “*fulfilment from the physical challenge required to penetrate into these places*” is apparent only to a limited and localised degree due to the nature of the landscape and the various access options. These three attributes/responses are expressed to a moderate degree in the study area.

Finally, there are two attributes/responses (“*remoteness and/or inaccessibility*” and “*a sense of sanctuary or solitude*”) on which the WLA description does not provide any commentary in relation to WLQ 4, suggesting that there is no specific comment to be made in relation to these aspects of WLQ 4. These two attributes/responses are expressed to a moderate degree in the study area.

In relation to the baseline strength of attributes and responses within the study area, it is relevant to note the Jenks classification of wild land within the study area, as shown on Figures 3 and 4. This indicates that the study area has notably lower Jenks classes than the other parts of the WLA and particularly the high-ranking central mountain area, where wildness qualities are well-displayed.

In the study area, there are two very small patches of level 8 wildness (the highest level); some very limited and intermittent areas of level 7; larger but still very intermittent areas of level 6; extensive areas of level 5; and limited fringes of level 4 and 3 around the edges of the study area and along the Maovally and Loch Sgeireach tracks. This classification indicates that the study area was considered to have moderate and relatively limited wildness attributes, even prior to the additional consideration of influence from consented wind farms at Braemore, Lairg II and Creag Riabhach.

### Step 3 – Assess the Sensitivity of the WLA Qualities

Sensitivity is assessed by combining the value of the WLA and its susceptibility to the Proposed Development. NatureScot guidance summarises this step as follows in Table 1:

*“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”.*

The value of the WLA has been established previously as medium-high other than the area that is also covered by the Assynt-Coigach NSA, which has a high value. The study area has a medium-high value as it lies outwith the NSA.

It has been ascertained in Step 1 that the Proposed Development has potential to significantly affect one of the qualities of the WLA (WLQ 4) and the assessment of the susceptibility and sensitivity therefore focusses on WLQ 4, as it applies to the study area.

OPEN’s methodology for assessing susceptibility is described previously in the Appendix.

The susceptibility of WLQS is specific to the change arising from the particular development that is proposed, including its individual components and features, and its size, scale, location, context and characteristics, as described in OPEN’s methodology. In the case of the Proposed Development, three of the physical attributes of the WLA have no susceptibility as they cannot be affected by the Proposed Development due to its location outwith the WLA. These attributes are “*high degree of perceived naturalness*”, “*landform which is rugged, or otherwise physically challenging*” and “*remoteness and / or inaccessibility*”. The remaining two physical attributes - “*the lack of modern human artefacts or structures*” and “*little evidence of contemporary land uses*” – can be affected by development within or outwith the WLA (as described in the description of WLQ 4) and therefore have a heightened susceptibility to the Proposed Development.

The baseline presence and strength of the physical attributes and perceptual responses that contribute to WLQ 4, and the study area, are of relevance to susceptibility, and are discussed in Step 2, above. This concluded that of the five physical attributes, one (“*high degree of perceived naturalness*”) is expressed to a high degree in the study area; one (“*landform which is rugged, or otherwise physically challenging*”) is expressed to a moderate/high degree in the study area; and the remaining three (“*the lack of modern human artefacts or structures*”, “*little evidence of contemporary land uses*” and “*remoteness and / or inaccessibility*”) are expressed to a moderate degree.

Of the four perceptual responses, two (“*risk or, for some visitors, a sense of awe or anxiety*” and “*perceptions that the landscape has arresting or inspiring qualities*”) are expressed to a moderate/high degree in the study area, while the remaining two (“*a sense of sanctuary or solitude*” and “*fulfilment from the physical challenge required to penetrate into these places*”) are expressed to a moderate degree.

In many cases, the lower strength of attributes/responses is due to the influences of human artefacts within and outwith the study area, including the elements that are mentioned in the WLA description as well as other elements described in Step 2 above, and more recently consented wind farms. These influences are particularly apparent in the study area when compared to the rest of the WLA due to its proximity to the more developed and less dramatic, mountainous landscapes that surround the southern, south-eastern and south-western parts of the WLA.

There is one notable aspect of WLQ 4 that will heighten its susceptibility to the Proposed Development - the open and exposed nature of the landscape and the resultant long, expansive views that can be gained from it. The WLA description notes “*these [human] elements tend to be visible over long distances due to the openness and simplicity of the peatland*” and this will relate to the Proposed Development as well as other human elements.

However, susceptibility is tempered by the location of the Proposed Development to the south-east of the WLA, which ensures that it will not be seen in views across the peatlands towards the central WLA mountains. This aspect of the WLQ is noted in the WLA description, which states that “*...these simple slopes highlight the contrasting and distinctive aspects of complex and high mountains to the north and west, emphasising the awe-inspiring qualities of these*”.

Moreover, the WLA description refers to a number of specific destination and routes within the WLA. It is notable that none of these lie within the peatlands (as described in Step 1) and are therefore not specifically relevant to WLQ 4. NatureScot’s guidance (paragraph 23) notes that “*whilst the qualities experienced from well visited destinations and routes within the WLA will be particularly sensitive, the assessment should recognise that WLAs even if not highly visited are sensitive.*” The absence of any of the listed “*well visited destinations and routes*” in the peatlands therefore implies that there will not be specific focusses of particularly high sensitivity in these terms, although it is acknowledged that the sensitivity of the WLA is not dependent on views gained from such locations.

The combination of these factors – – the location of the Proposed Development outwith the WLA; the strength of the attributes/responses, including some high but also some moderate; the lack of susceptibility of three of the attributes to the Proposed Development; the human influences that are prevalent around the study area and, conversely, the long open views gained from the peatlands which can heighten external influences; the location of the Proposed Development where it will not affect views from the peatlands towards the northern WLA mountains; and the absence of specific well visited destinations and routes - results in WLQ 4 having a medium susceptibility to the Proposed Development . When combined with the medium-high value of the study area, this leads to a **medium-high** sensitivity for WLQ 4, and the study area.

## Assess the Magnitude of the Effects

NatureScot guidance summarises this step as follows in Table 1:

*“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.”*

It has been ascertained in previous steps that the Proposed Development has potential to significantly affect one of the four WLQS of this WLA - “***extensive, elevated peatland slopes whose simplicity and openness***

***contribute to a perception of awe, whilst highlighting the qualities of adjacent mountains***” – and this part of the assessment therefore focusses on this WLQ.

L VIA Viewpoints 13 and 19 provide a useful illustration of the views that can be gained from within the study area. However the assessment of effects on viewpoints and on wild land areas is carried out separately and the assessment of effects at Viewpoints 13 and 19 should therefore not be considered in relation to the assessment of effects on wild land, and the viewpoints have been referenced simply to provide an illustration of views within the study area.

The magnitude of change on WLQ 4 will vary across the peatlands that comprise this WLQ due to the extensive nature of the landscape and the resultant variable influence of the Proposed Development.

The maximum magnitude of change on WLQ 4 will be **medium-low**. This arises from the following considerations.

- There will be no *direct* physical effects on this WLQ, and effects are perceived only.
- The Proposed Development will affect one of the five physical attributes of this WLQ - *“the lack of modern human artefacts or structures”* as it will add to the wind farm influence that is already noted in WLQ 4, further diminishing the attribute of *“a lack of modern human artefacts or structures”*, which is apparent to a moderate degree in the baseline situation.
- In relation to this attribute of the WLQ, the Proposed Development will introduce theoretical external influence of wind energy development to parts of the study area that are not affected by baseline wind energy development (as seen in Figure 5a) and also to an aspect of the setting to the WLA that is not affected by large-scale baseline development. It will, however, be seen in an aspect of the setting to the WLA that is already notably affected by external human influence. When consented wind farms are also taken into consideration, the theoretical influence of the Proposed Development on otherwise unaffected parts of the study area will decrease considerably due to the influence of Creag Riabhach (see Figure 5b).
- The Proposed Development will have no effect on the remaining four physical attributes of WLQ 4, including the two that are expressed to a high and moderate/high level in the study area (*“high degree of perceived naturalness”* and *“landform which is rugged, or otherwise physically challenging”*).
- The relatively low elevation of the Proposed Development, its very limited field of view, and location to the south-east of the peatland slopes ensure that it will not affect the *“openness and high exposure of the area”*, or the *“simplicity and openness [that] contribute to a perception of awe, whilst highlighting the qualities of adjacent mountains”* and will thus not affect the response *“risk or, for some visitors, a sense of awe or anxiety”* (which is expressed to a moderate/high degree in the study area).
- These factors also ensure that the Proposed Development will not affect the *“vast scale of these simple peatland slopes, [which] in combination with a strong sense of openness and exposure, appears arresting”* and will thus not affect the response *“perceptions that the landscape has arresting or inspiring qualities”* (which is expressed to a moderate/high degree in the study area).
- The Proposed Development will not affect *“...the peatland slopes...[that] are rugged at a local level...that make the slopes physically challenging to cross”* and will thus not affect the response *“fulfilment from the physical challenge required to penetrate into these places”* (which is expressed to a moderate degree in the study area).

- It may affect the response “*a sense of sanctuary or solitude*” through the introduction of further influence of development to this WLQ. This response is, however, not specifically mentioned in the WLA description of the WLQ, and any effect would be limited by the limited effect of the Proposed Development.
- The landform orientation of the eastern peatlands towards the Proposed Development and the appearance of the Proposed Development in the open aspect of the setting to the area covered by this WLQ can increase its influence.
- The Proposed Development lies a minimum of around 6.3 km from the area covered by this WLQ, ensuring that it will constitute a relatively minor feature in the setting to the WLA.
- The parts of the study area that gain theoretical visibility of the Proposed Development are covered primarily by Jenks classes 3, 4, 5 and 6, with very limited areas of level 7. Neither of the two very small areas of level 8 within the study area will be affected by the Proposed Development.
- When the WLA is considered as a whole, the Proposed Development will affect a very limited part of it, and will have a very minor effect on the parts of the WLA that have the higher Jenks classifications

This **medium-low** magnitude of change will diminish as distance from the Proposed Development increases, dropping to a **low** and then **negligible** level. This reduction in the level of change results from various factors including the reduction in the extent of the setting to the WLA that will be affected by the Proposed Development so that the turbines become a less notable external influence on the attributes of the WLA; the continued low elevation of the turbines, which ensures that they will not appear as prominent vertical features; and the increasing importance of the other WLQS, attributes and responses of the WLA as the Proposed Development decreases in influence.

## Judge the Significance of the Effects

NatureScot guidance summarises this step as follows in Table 1:

*“Conclude on the overall significance (taking into account any mitigation), in terms of the study area and where relevant the wider WLA.”*

The significance of the effect is assessed through a combination of the sensitivity of the WLQ and the magnitude of change that will arise on these as a result of the Proposed Development, with reference also made to their physical attributes and perceptual responses.

The steps above indicate that the Proposed Development has potential to have a significant effect on one of the four WLQS of WLA 34 (Reay-Cassley). This is WLQ 4 – ***“Extensive, elevated peatland slopes whose simplicity and openness contribute to a perception of awe, whilst highlighting the qualities of adjacent mountains”*** – and the assessment of effects on the WLA has therefore focussed on this WLQ.

Steps 3 and 4 have ascertained that WLQ 4 has a **medium-high** sensitivity and that a maximum **medium-low** magnitude of change will arise as a result of the Proposed Development.

A combination of the factors considered in the maximum medium-low magnitude of change and the medium-high sensitivity of WLQ 4 will lead to a **not significant** effect on WLQ 4. The effect on the study area and the wider WLA will also be **not significant**. These effects will be long-term and reversible.

In OPEN’s methodology, a combination of a medium-low magnitude of change and a medium-high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is judged to be not significant primarily because the Proposed Development has potential to significantly affect only one of the four WLQ of

the WLA, and will affect only one physical attribute and one perceptual response of that WLQ. It is also important that the Proposed Development lies outwith the WLA and will therefore have no direct physical effects upon it.

Whilst removing all visibility from the WLA is not possible, the design of the Proposed Development ensures that it will have very limited/negligible influence on the physical attributes and perceptual responses of the part of the WLA that forms the mountainous core of the WLA, where WLQS are best expressed. This has been achieved through the restriction on turbine height and the small horizontal field of view that is occupied by the Proposed Development. The relatively low elevation of the turbine bases is also important as it ensures that they do not appear prominent in the setting to the WLA. In almost all cases, the Proposed Development will only be seen from areas where the WLQS are not expressed to their optimum and where other external influences have resulted in a diminution of their strength.

## Cumulative Effects on WLA 34 (Reay-Cassley)

NatureScot guidance notes the following in relation to assessing cumulative effects on WLAs.

*“The potential for cumulative effects. Other proposals (either of the same or different type) which are likely to contribute to significant cumulative effects should be identified in discussion with the decision maker. The principles within our guidance document Assessing the cumulative impact of onshore wind energy developments specific to onshore wind energy development can be applied to other development and should aid this assessment.”* (paragraph 16)

OPEN’s methodology for the assessment of cumulative effects on landscape character receptors and views is described in Appendix 6.1. This accords with guidance in ‘Assessing the cumulative impact of onshore wind energy developments’ (SNH, 2012).

The following operational and consented wind farms are relevant in the assessment of effects on the Reay-Cassley WLA:

- the operational wind farms at Achany and Rosehall, a minimum of just over 1 km and 1.7 km to the south of the WLA;
- the operational wind farm at Lairg Estate, a minimum of around 8.3 km to the south-east of the WLA;
- the consented wind farm sites at Braemore and Lairg II, 5.1 km and 8 km away respectively to the south-east; and
- the consented wind farm site at Creag Riabhach, approximately 10 km to the north-east.

More distant sites at Gordonbush and Extension and Kilbraur and Extension are not considered in the assessment due to a combination of distance and very limited and intermittent visibility.

It is relevant to note that Achany, Lairg and Rosehall wind farms were operational at the time of the SNH site assessment of this WLA, which was carried out September 2013. These wind farms are mentioned in the SNH description of the WLA.

The application stage wind farm at Meall Buidhe, which lies just over 7 km away to the south of the WLA has also been included in the assessment. South Kilbraur, around 25 km to the east of the WLA has not considered in the assessment due to a combination of distance and very limited and intermittent visibility.

The cumulative assessment focusses on the study area that is identified in Step 1 of this Appendix. This is because other parts of the WLA are covered by WLQS that will not be significantly affected by the Proposed Development. Moreover, the Proposed Development does not have sufficient influence on the other parts of the WLA to enable it to contribute to a significant cumulative effect.

The cumulative magnitude of change arising from the addition of the Proposed Development in any scenario will vary across the study area. The highest cumulative magnitude of change in any scenario will arise on the south-eastern edge of study area, where there is some intermittent mid-range influence from the Proposed Development and operational sites at Achany, Rosehall and Lairg Estate are also visible at close to mid-range. Consented sites at Lairg II, Braemore and Creag Riabhach are also theoretically visible and will have some influence.

When the Proposed Development is added to operational wind farms, the maximum cumulative magnitude of change on the study area will be **low/medium-low**, arising at those locations where the Proposed Development is seen in conjunction with readily apparent visibility of the operational wind farms. This arises because, as described in Step 4 above, the Proposed Development will add to the wind farm influence that is already noted in WLQ 4, increasing the external influence of human artefacts and structures on the peatlands and further diminishing the attribute of “*a lack of modern human artefacts or structures*”, which is apparent to a moderate degree in the baseline situation. It may also affect the sense of sanctuary or solitude through the addition of further development although this perceptual response is not mentioned in relation to WLQ 4 in the SNH description.

The cumulative magnitude of change is restricted to a **low/medium-low** level by the small number of operational wind farms that influence the study area and WLQ 4 and their moderate turbine size; the limited and intermittent visibility of these wind farms from the study area (as seen in Figure 5a); and the grouping of operational wind farms to the south and south-east of the study area, which limits operational influence to one part of the setting of the WLA and ensures that while the Proposed Development will introduce new wind farm influence to the study area and WLQ 4, the great majority of its context will remain unaffected by wind farms..

When consented wind farms are also considered, the level of change arising from the addition of the influence of the Proposed Development to the study area and WLQ 4 will intermittently increase to a maximum **medium-low** level. This increase is due to the influence of all three consented sites, as the Proposed Development would be added to a situation where a further three wind farms would potentially have some influence on WLQ 4. However, Braemore and Lairg II have intermittent/very intermittent and limited influence on the study area, and the influence of Creag Riabhach is relatively distant. When consented wind farms are also taken into consideration, the theoretical influence of the Proposed Development on otherwise unaffected parts of the study area will decrease considerably due to the influence of Creag Riabhach (see Figure 5b).

When the application-stage wind farm at Meall Buidhe is also considered, the cumulative magnitude of change arising from the addition of the Proposed Development would increase slightly due to the consideration of an additional wind farm, but would not rise above a **medium-low** level. This is because Meall Buidhe has a relatively distant influence on the study area (a minimum of over 10 km away) and, from closer parts of the study area, would be seen to the south, in the same context as Achany and other baseline wind farms, thus avoiding a perception that wind farm influence is extended further around the setting to the study area.

The cumulative effect in the scenarios of operational, operational and consented and ‘operational, consented and application-stage wind farms will be **not significant** due to a combination of the factors that lead to the medium-high sensitivity of the receptor and the maximum low/medium-low (with operational wind farms) and medium-low (with operational and consented wind farms and operational, consented and application-stage wind farms) cumulative magnitude of change.

## References

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