

EARBA STORAGE

A GILKES ENERGY COMPANY

Earba Pumped Storage Hydro Scheme EIA Report

**Appendix 7.5: Assessment of Wild Land Area 14:
Rannoch – Nevis – Mamores - Alder**

February 2024



Quality Information

Prepared by

ASH design+assessment

Checked by

Chris Pasteur

Approved by

Gavin McGill

Revision History

Revision

01

Revision Date

February 2024

Details

Issue to ECU

Authorised

Gavin McGill

© 2024 Gilkes Energy Ltd. All Rights Reserved

Appendix 7.5: Wild Land Area Assessment – Wild Land Area 14: Rannoch – Nevis – Mamores - Alder

1.1	Introduction	1
1.2	Wild Land Background	1
2.1	Guidance	4
2.2	Structure	4
3.1	Description of WLA 14: Rannoch – Nevis – Mamores – Alder	9
3.2	Desk Study	11
3.3	Site Survey	13
4.1	Wild Land Sensitivity	21
4.2	Magnitude of Change	23
4.3	Mitigation Measures	34
4.4	Significance of Effects	35

Figures

Figure 7.5.1: Study Area

Figure 7.5.2: Map of Relative Wildness

Figure 7.5.3: Wild Land Attribute Mapping

Figure 7.5.4: Map of Relatively Wildness (Jenks 8 Interpretation)

Figure 7.5.5: Changes to the Study Area since production of the WLA mapping

Figure 7.5.6a – 7.5.6i: Representative Wirelines from WL 1 – WL 9

Annexes

Appendix 7.5.1: WLA Assessment Location Analysis

1. Introduction

1.1 Introduction

- 1.1.1 NatureScot (previously Scottish Natural Heritage (SNH)) *Policy Statement No 02/03: Wildness in Scotland's Countryside* (Policy Statement 02/03)¹ recognises the concept of wild land or wildness as land that is sensitive to any form of development and provides psychological benefit to those seeking more challenging forms of outdoor recreation. It notes that this type of land is scarce in national terms and has declined in extent over the past few decades. It aims to safeguard the character of these landscapes and protect them from inappropriate development or land use change.
- 1.1.2 Within the context of this policy, NatureScot have identified 42 Wild Land Areas (WLAs) considered to represent the most significant areas of wild land character in Scotland. These areas are considered as being of national importance.
- 1.1.3 WLAs do not constitute designated landscapes but are recognised within Policy 4 of the *National Planning Framework 4* (NPF4)². NPF4 states that development proposals in these areas would only be supported where they support meeting renewable energy targets, comprise small scale development directly linked to a rural business or croft, or are required to support a fragile community in a rural area. A wild land impact assessment is required to support such proposals, to set out how design, siting, or other mitigation measures have been and will be used to minimise significant impacts on the qualities of the wild land.
- 1.1.4 This WLA assessment considers the potential effects of the Proposed Development on WLA 14: Rannoch – Nevis – Mamores – Alder. The WLA assessment analyses the baseline presence of the attributes which contribute to the key qualities of the WLA and the degree to which these attributes and qualities would be affected by the Proposed Development. It further outlines mitigation measures which have been developed to minimise the predicted effects. The assessment has been undertaken by Chartered Landscape Architects, ASH design + assessment Ltd (ASH) and is supplementary to the Landscape and Visual Assessment (LVIA) (**Chapter 7** of the Environmental Impact Assessment Report (EIAR)).

1.2 Wild Land Background

- 1.2.1 Annex 1 of *Policy Statement 02/03*¹ identifies five physical attributes which contribute to the experience of wildness and identification of wild land:
- A high degree of perceived naturalness in the setting, especially in its vegetation cover and wildlife, and in the natural processes affecting the land;
 - The lack of any modern artefacts or structures;
 - Little evidence of contemporary human uses of the land;
 - Landform which is rugged, or otherwise physically challenging; and
 - Remoteness and/or inaccessibility.
- 1.2.2 In addition, four perceptual responses are identified as being evoked by those experiencing wild land:
- A sense of sanctuary or solitude;

¹ Scottish Natural Heritage, now NatureScot (2002) *Wildness in Scotland's Countryside: Policy Statement 02/03*.

² The Scottish Government (2023) *National Planning Framework 4*.

- Risk or, for some visitors, a sense of awe or anxiety, depending on the individual's emotional response to the setting;
- Perceptions that the landscape has arresting or inspiring qualities; and
- Fulfilment from the physical challenge required to penetrate into these places.

1.2.3 Explanation of the physical attributes and perceptual responses are provided by NatureScot³ as detailed in **Table 1.1**:

Table 1.1: Explanation of Physical Attributes and Perceptual Responses

Physical Attribute	Explanation
Perceived naturalness	Within WLAs vegetation cover is primarily composed of natural or semi-natural habitats (which may not be, ecologically, in the best condition). Catchment systems and other geomorphological processes are largely unmodified. The term 'perceived naturalness' reflects that some may consider the vegetation cover to be more 'natural and unmanaged' than they are in fact (for example, managed heather moorland).
Lack of construction or other artefacts	There is no or very limited evidence of contemporary buildings, structures or engineering works within WLAs although their presence outwith may be discerned. Older artefacts (for example, shielings and cleared settlements) and small scale features (for example, fences and stalkers paths) may be evident.
Evidence of contemporary land uses	Within WLAs no or very limited evidence of more intensive land use, but their presence outwith may be discerned. Extensive grazing and management for field sports may be evident (for example, muirburn, grazing pressure and use of ATVs).
Rugged or challenging terrain	Within WLAs, land that has extensive rough terrain or extensive boglands, which is difficult to traverse.
Remoteness and inaccessibility	Within WLAs, land that is distant from public motorised access (the nearest public road, ferry landing or railway station), taking account of the distance, barriers to travel (for example, lochs, rivers and cliffs), and ease of travel on foot / bicycle.
Perceptual Response	Explanation
Sense of sanctuary or solitude	The perception of separation from the 'modern world', isolation or distance from disturbance, that engenders feelings of respite or tranquillity, that enables a focus on the natural / semi-natural setting.
Risk, a sense of awe or anxiety	The perception of hazard that arises from being self-reliant in remote settings of large scale, whose rugged natural character and isolation from assistance (if required) engenders respect.
Arresting or inspiring qualities	An aesthetic reaction to the natural / semi-natural setting, often associated with the 'classic' high, steep and jagged mountains juxtaposed with deep lochs or seas, but can also be prompted by other superlative compositions such as the large scale simplicity of rounded massif, or the seemingly infinite expanse of open peatland or seas.
Fulfilment from Physical Challenge	The satisfaction and sense of accomplishment that arises from the physical effort required to traverse these settings, tackling their scale, topography, ground and weather conditions.

³ NatureScot (2020). *Assessing Impacts on Wild Land Areas: Technical Guidance, Annex 1.*

NatureScot's Mapping Scotland's Wildness and Wild Land Project

1.2.4 In 2014, NatureScot (then SNH) completed a two phase mapping project to identify areas where the highest degree of wildness is experienced in Scotland and which could be classed as wild land. The two phases to the project comprised:

- Phase 1: Desk- based mapping exercises leading to the production of a Map of Relative Wildness for Scotland; and
- Phase 2: Identification of WLAs where the highest degree of wildness was found to be experienced.

Map of Relative Wildness

1.2.5 The Map of Relative Wildness attempts to indicate relative wildness throughout Scotland and shows the degree of wildness considered to be present on a continuum from Low through to High at a 25 m resolution. This has been compiled through the combined mapping of four individual attributes giving equal weighting to each as follows:

- Perceived naturalness;
- Rugged or challenging terrain;
- Remoteness from public mechanised access; and
- Lack of built modern artefacts.

1.2.6 The Map of Relative Wildness and associated Attribute Mapping have been developed as a desk exercise using GIS software to interrogate and classify a number of datasets leading to an impression of the intensity of each of the physical attributes across Scotland. Whilst this is considered to give a good general impression of the strength of each of the attributes and the potential for the overall degree of wildness in a particular area, there are a number of limitations with this process:

- The analysis is limited to information included in the digital datasets analysed and features which are not mapped have therefore not been considered;
- Digital datasets can only depict a particular situation at one point in time and any changes taken place since the production of the dataset can therefore not be considered (changes which have occurred to the baseline since 2014 are discussed in paragraphs 3.2.6 to 3.2.9); and
- The perceptual qualities of wild land which lead to its appreciation cannot be accurately mapped by the analysis of physical attributes. *Policy Statement 02/03*⁴ states, “*The appreciation of wildness is a matter of an individual’s experience, and their perceptions and preferences for landscapes of this kind. Wildness cannot be captured and measured, but it can be experienced and interpreted by people in many different ways.*”⁴ Therefore, the strong presence of the physical attributes can only suggest that the perceptual attributes would be likely to be present. Confirmation of the degree in which the perceptual attributes are present can only be made by site visit and objective analysis. *Policy Statement 02/03* states that “*to identify wild land... all of the perceptual attributes should be identifiable to some degree.*”⁵

⁴ Paragraph 3 of NatureScot (2002) *Wildness in Scotland’s Countryside: Policy Statement 02/03*,.

⁵ SNH, *Policy Statement 02/03, Annex*, paragraph 9.

Wild Land Areas

- 1.2.7 NatureScot have identified and mapped 42 WLAs throughout Scotland. These WLAs represent the areas considered to have the highest degree and extent of wild land, meriting safeguarding in the National interest.
- 1.2.8 The identification of WLAs involved a review of the Map of Relative Wildness using the Jenks Natural Breaks Optimisation method which divides the data into distinct classes by seeking to reduce the variance within each class and maximise the variance between them. A 'Jenks 8' classification (8 classes) was chosen for analysis of the Map of Relative Wildness data. Review of the Jenks 8 classification informed selection of areas for consideration as WLAs, requiring a sufficient area of contiguous coverage of Jenks 8 Classes 7 and 8, surrounded by a broader expanse of Jenks 8 Classes 5 and 6.
- 1.2.9 Identification of the defined WLAs was informed by the following guidelines:
- The areas identified contain around 650 ha+ of Jenks 8 Classes 8 and 7. Areas of wild land will consist of these Classes, with the inclusion of Class 6 and Class 5 where these are part of and contribute to the wild land block as a whole, reflecting that wildness strengthens as you move into or across an area.
 - Account is taken of changes since the baseline data underpinning the Map of Relative Wildness was undertaken, in particular the approval and / or construction of significant developments such as wind farms.
 - Areas can encompass features detracting from wildness (such as isolated estate buildings), but their effect should be localised with relatively limited impact on the wider sense of wildness that can be experienced across the wild land area.
 - Limited areas of lower Jenks Classes may be included within a wild land area where they occur as an isolated feature, interrupt simple boundaries, or fragment otherwise contiguous blocks of wild land (examples include transmission lines and railway lines).
- 1.2.10 NatureScot have produced a suite of WLA Descriptions and identified Key Qualities (WLQs) for each of the 42 WLAs.

2. Methodology

2.1 Guidance

- 2.1.1 The assessment of effects on the WLA has been based on NatureScot 2020 Guidance *Assessing Impacts on Wild Land Areas: Technical Guidance*³ (the NatureScot Guidance) supported by a desk based analysis of the Proposed Development in relation to the Map of Relative Wildness and associated attribute mapping. Consideration has also been given to the methods for landscape assessment outlined in the *Guidelines for Landscape and Visual assessment (Third Edition)* (GLVIA3)⁶.

2.2 Structure

- 2.2.1 The NatureScot Guidance³ advocates a five-step approach to the assessment of effects on the WLA broadly in line with GLVIA3⁶:

⁶ Landscape Institute & Institute of Environmental Management and Assessment (IEMA), (2013) *Guidelines for Landscape and Visual Impact Assessment, Third Edition*. Routledge.

- Step 1: Define the study area and the scope of the assessment;
- Step 2: Verify the WLA baseline;
- Step 3: Assess the sensitivity of the WLQs;
- Step 4: Assess the magnitude of the effects; and
- Step 5: Judge the significance of the effects.

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

- 2.2.2 The NatureScot Guidance³ notes that the study area for the WLA assessment should reflect the extent of the likely significant effects on the WLA, including any cumulative effects. A study area of 10 km from the site boundary of the Proposed Development has been adopted for this WLA Assessment, in agreement with NatureScot (see **Figure 7.5.1**). This study area is consistent with that for the LVIA for the Proposed Development. However, consideration has also been given to the potential for effects identified within the study area to affect the WLA as a whole.
- 2.2.3 The WLA assessment therefore considers the effects of the Proposed Development on:
- The physical and perceptual attributes of the wild land within the study area;
 - The WLQs within the study area; and
 - The contribution of these effects to the WLA as a whole.
- 2.2.4 Effects are considered during construction, and during operation after 15 years, once vegetation has had an opportunity to fully establish.

Step 2: Establish the Baseline

- 2.2.5 Establishment of the baseline involves confirmation of the existing wild land qualities of the study area and their contribution to the WLA. This has involved consideration of the degree to which the physical and perceptual attributes of wild land and the identified WLQs are present within the WLA and has been established using a combination of desk-based study and site survey. Appraisal of the baseline has considered changes which have occurred directly and indirectly since the 2014 mapping exercises have taken place and WLA description has been produced, and anticipated changes to the baseline in the form of consented development.

Desk Studies

- 2.2.6 Desk study has involved review and consideration of the following documents and resources:
- The Map of Relative Wildness and associated attribute mapping from the Mapping Scotland's Wildness project;
 - The *Non-Technical Description of the Methodology*⁷ for the Mapping Scotland's Wildness project;
 - NatureScot (then SNH) Advice to Government⁸;
 - NatureScot (then SNH) Description of WLA 14 (Rannoch – Nevis – Mamores – Alder)⁹;
 - ZTVs and plans for the constructed Pattack and Guilbinn Hydro Schemes and Stronelairst Wind Farm, which were not taken into account in the original mapping exercise; and

⁷ SNH (June 2014) *SNH's Mapping of Scotland's Wildness and Wild Land: Non-technical Description of the Methodology*..

⁸ SNH (June 2014) *Core Areas of Wild Land 2013 Map: Scottish Natural Heritage's Advice to Government*.

⁹ SNH (2017) *WLA 14. Rannoch-Nevis-Mamores-Alder*. Available at: Wild land Description Rannoch-Nevis-Mamores-Alder-July-2016-14.pdf (nature.scot). Accessed on 12.9.23.

- ZTVs and plans for the proposed Cloiche Wind Farm which was not taken into account in the original mapping exercise.

Site Survey

- 2.2.7 Site survey has been undertaken to verify the findings of the desk-based studies. To obtain a baseline understanding of the site, visits were undertaken by a team of Chartered Landscape Professionals from ASH, in August, 2023. Representative Wild Land Assessment Locations (WLA) within the WLA were visited and evaluated using a standardised form (see **Appendix 7.5.1**). Site appraisal considered the strength of the physical and perceptual attributes at each location visited and the degree to which the identified WLA Key Qualities were found to be present.
- 2.2.8 A range of WLA have been selected in agreement with NatureScot, to obtain a robust picture of the varying strength of wildness throughout the WLA. The WLA have been selected to be representative of a particular area and are appraised on this basis, rather than as isolated points. The journey taken to reach these locations has also been considered as part of the evaluation.

Criteria for the Evaluation of Physical Attributes and Perceptual Responses

- 2.2.9 The following criteria have been used as a basis for identifying the strength of physical attributes, as detailed in **Table 2.1** and **Table 2.2**.

Table 2.1: Physical Attributes – Strength of Attribute

Strength of Attribute	Description
High	Attribute is strongly present and a very noticeable characteristic of the location or area.
Medium	Attribute is partially present, to the extent that it is a noticeable characteristic of the location or area.
Low	Attribute is present to some degree, but is a less noticeable characteristic of the location or area.
Negligible / Not present	The attribute is not recognisably present at the location or area.

Table 2.2: Perceptual Responses – Strength of Response

Strength of Response	Description
High	The response is very strongly evoked at and around the location and contributes strongly to the overall sense of place that is experienced.
Medium	The response is evoked to some extent either at or around the location and provides some influence on the overall sense of place that is experienced.
Low	The response is evoked to a limited extent at or around the location but provides little contribution to the overall sense of place.
Negligible / Not present	There is little or no sense of the response evoked at or around the location.

Strength of Wildness

- 2.2.10 Based on the strength identified for each of the above criteria an evaluation of strength of wildness has been applied ranging from Low to High as detailed in **Table 2.3** for each of the WLA. The individual evaluations at each WLA have then been considered in combination with the

information obtained from the desk-based exercises to provide an evaluation of the baseline strength of wildness across the WLA as a whole.

Table 2.3: Strength of Wildness Ratings

Rating	Description
High	The area has an overriding sense of wildness. It is large scale and remote with little evidence of human influence on the landscape and strong impressions of isolation. It is likely to be difficult to access with a rugged and / or challenging terrain, inspiring qualities with a considerable sense of awe or risk.
Medium	The area has a generally dominating sense of wildness. It is likely to be large scale and fairly remote although locally influenced by some human interventions or neighbouring land uses. There is likely to be some rugged or challenging terrain with impressive or dramatic views from some areas and a general sense of isolation.
Low	The area has the qualities of wild land but is influenced by human interventions such as constructed features, tracks, paths and forestry which will be locally dominating. There will be some difficult terrain with a limited degree of risk, but tracks and paths will provide easier routes through the landscape. A sense of solitude or isolation is likely to be experienced in some areas and there may be some expansive or impressive views.

Step 3: Assess the Sensitivity of the Study Area

- 2.2.11 GLVIA recognises that landscape sensitivity is derived from a combination of two factors:
- Landscape value; and
 - Susceptibility to change.
- 2.2.12 Given its identification as a WLA, the value of the landscape is recognised as being high. However, susceptibility may change across the WLA depending on the strength of wildness and the degree to which the WLQs may be present and the potential for the key elements of the WLQ to be altered by the type of development proposed.
- 2.2.13 Sensitivity has been evaluated for each of the WLQs rated on a three-point scale at each of the assessment locations. This is transcribed across the WLA area dependant on the degree to which the Key Qualities are present. The criteria for sensitivity are defined in **Table 2.4**.

Table 2.4: Sensitivity Criteria

Rating	Description
High	The WLQ is strongly present and a highly valued aspect of the WLA assessment location and is very susceptible to change of the type proposed.
Medium	The WLQ is present and a valued aspect of the WLA assessment location but has lower susceptibility to change of the type proposed; or, the WLQ is less strongly present, but is very susceptible to change of the type proposed.
Low	The WLQ is less strongly present and a less valued aspect of the WLA assessment location and/or has limited susceptibility to change of the type proposed.

Step 4: Assess the Magnitude of the Effects

- 2.2.14 Step 4 has involved evaluation of the magnitude of change to each of the physical attributes and perceptual responses which would result from the construction of the Proposed Development. This has fed into a conclusion of the magnitude of effect for each WLQ across the WLA as a whole.
- 2.2.15 Criteria used for the evaluation of magnitude of change are detailed in **Table 2.5**.

Table 2.5: Magnitude of Change Criteria

Rating	Physical Attributes and Perceptual Responses	WLA Key Qualities
High	A very noticeable change to the presence of the physical attribute / perceptual response.	Alteration to wild land attributes would cause a notable change in the presence of the Key Quality over an extensive area ranging to a very intensive change over a more limited area.
Medium	A noticeable change to the presence of the physical attribute / perceptual response.	Alteration to wild land attributes would cause a perceptible change in the presence of the Key Quality over an extensive area ranging to notable change in a localised area.
Low	A small change to the presence of the physical attribute / perceptual response.	Alteration to wild land attributes would cause a perceptible change in the presence of the Key Quality in a localised area.
Negligible	A very small or barely perceptible change to the presence of the physical attribute / perceptible response.	Alteration to wild land attributes would cause a virtually imperceptible, or no discernible change in the presence of the Key Quality.

Step 5: Judge the Significance of the Effects

2.2.16 A final judgement of potential significance of effect has been applied based on the identified values for magnitude of effect for each WLA Key Quality against the sensitivity value, taking in to account the strength of wildness across the WLA. Explanation of the effects ratings is described in Table 2.6:

Table 2.6: Significance of Effects Criteria

Rating	Description
Major	The Proposed Development would result in a very notable reduction in the presence of wild land attributes which contribute a WLQ to the extent that its presence would be very noticeably reduced.
Moderate	The Proposed Development would result in a partial reduction in the presence of wild land attributes which contribute to a WLQ to the extent that its presence would be partially reduced.
Minor	The Proposed Development would result in localised effects to wild land attributes and WLA Key Qualities but would not be sufficient to result in a material change to the presence of the WLQ.
Negligible	The Proposed Development would result in no discernible effect to the presence of the WLQ.

2.2.17 The NatureScot Guidance³ states that, “Where effects are identified that result in a material change in the experience of any of the wild land qualities, this is considered to be significant.” For the purposes of this assessment, this is considered to include effects rated as Moderate or greater.

3. Baseline

3.1 Description of WLA 14: Rannoch – Nevis – Mamores – Alder

- 3.1.1 The Rannoch – Nevis – Mamores – Alder WLA (WLA 14), covers a very extensive area (1180 km²) of mountains, glens and peatlands, stretching from the Cairngorms National Park and A9 at its eastern extent, and including Ben Nevis, east Glen Coe and Rannoch moor within its western extent. Along its northern side, it is broadly defined by the mountainous slopes to the south of Loch Laggan and Glen Spean, whilst Loch Rannoch lies to its south. It is surrounded on all sides by other WLAs with separation formed by road or rail corridors and forested or remotely settled glens. This leads to a perceived continuity of wild land in some areas where these lower lying features cannot be seen. The WLA is a popular area for recreation, containing Scotland's highest peak in Ben Nevis, other iconic summits and part of the West Highland Way around Glen Coe, and other remote mountains within its heart, including Ben Alder.
- 3.1.2 Within the study area, the area is defined by a group of complex and diverse craggy mountains, separated by long, enclosed, sweeping glens, lochs and corries. Tracks and paths from the edge of the WLA to the north and east provide access to these glens, but the mountains become progressively more remote and massive towards the south-west. The long, fjord-like Loch Ericht, which is an existing hydro reservoir, cuts through the south-east of the study area and forms a notable physical barrier, although access tracks follow its shoreline. There are some small forest plantations, particularly focussed around Loch Ericht and Loch Pattack towards the south-east, and forestry to the north in Glen Spean and around Loch Laggan also influences some areas. Existing built infrastructure within the study area is mostly associated with the River Pattack Hydroelectric Scheme which is described further in paragraph 3.2.7.

WLA Key Qualities

- 3.1.3 The WLQs identified by NatureScot⁹ are:
- **WLQ 1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features:**
 - This WLQ highlights the rugged qualities of a diverse and extensive range of mountains and striking glaciated glens with lochs, rivers and waterfalls, leading to a sense of awe and arresting qualities which may be enhanced by seasonal weather conditions including snow cover;
 - The landform and preponderance of rock, cliffs and scree, along with occasional woodland, rivers and waterfalls contribute to a sense of naturalness, particularly in winter weather conditions;
 - The elevation, steep slopes, crags cliffs and scree lead to the mountains being physically challenging and lead to a sense of risk; and
 - Human artefacts include a few historic features and bothies with localised influence, and tracks and paths along some glens, mostly low key but with some tracks, particularly around the margins of the WLA, having more influence.
 - **WLQ 2: A strong contrast of wide open peatland, lochs and steep-sided mountains that highlight the visibility and awe-inspiring qualities of each:**
 - This WLQ focusses on the contrast between the wide open horizontal expanses of peatland with the vertical form of the mountain which emphasises the awe inspiring and arresting qualities of both features.
 - **WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas:**

- This WLA relates to the central area of the WLA and highlights the perceptual qualities of sanctuary, solitude, and risk, due to the limited accessibility, challenging terrain and qualities of remoteness;
- A sense of awe is highlighted, due to the perceived extent of the WLA which is often greater than actually exists due to the simple structure and visual foreshortening of the lower lying open peatlands where there are few obvious scale markers, and a sense of continuity from higher level with other surrounding WLAs, where the lower glen areas are screened and multiple mountains are seen leading into the distance;
- The WLQ notes that human elements may be visible over large distances, leading to presence of human artefacts and contemporary land use and affecting the sense of remoteness and sanctuary, more noticeably around the outer facing slopes of the central core.
- **WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk:**
 - This WLQ highlights a reduction in the sense of solitude within localised areas where access is popular such as routes to some of the main peaks, in contrast to the majority of the WLA where limited visitors leads to a stronger presence of remoteness, sanctuary and solitude.
 - The appearance of the WLA from routes outwith its boundary including the A9 and A82, and the railway line which passes through the WLA, is recognised as giving opportunities to larger numbers of people to experience awe-inspiring qualities
 - Road and rail routes form obvious human artefacts whilst the appearance and sound of vehicles can diminish the sense of sanctuary.
- **WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness:**
 - This WLQ highlights the role of different waterbodies, watercourses and bogs in revealing the rugged qualities of the peatland and mountain landform which amplifies the perceived naturalness, reduces accessibility and increases the sense of remoteness and physical challenge;
 - The WLQ also highlights the presence of existing dammed waterbodies and associated with hydroelectric schemes, which form localised human artefacts and associated drawdown which can indicated contemporary land use and reduce perceived naturalness.

3.1.4 In agreement with NatureScot, WLQ 2 has been scoped out of further consideration within the assessment, because the presence of wide open peatlands is limited within the study area where the landscape is more characterised by a combination of mountains and glens.

3.1.5 The key physical attributes and perceptual responses which are highlighted in the WLA Description as contributory to each remaining WLQ are summarised in Table 3.1.

Table 3.1: Key Physical Attributes and Perceptual Responses Highlighted in WLQ Descriptions

WLQ	Physical Attributes	Perceptual Responses
WLQ 1	• Perceived naturalness; • Rugged or challenging terrain; • General lack of construction or other artefacts.	• Risk, a sense of awe or anxiety; • Arresting or inspiring qualities; • Fulfilment from physical challenge
WLQ 3	• Rugged or Challenging Terrain;	• Sense of Sanctuary or Solitude;

WLQ	Physical Attributes	Perceptual Responses
	Remoteness and Inaccessibility	- Risk, a Sense of Awe or Anxiety; - Arresting or inspiring qualities.
WLQ 4	Localised reduction in remoteness and inaccessibility.	- Opportunities to experience arresting and awe-inspiring qualities; - Localised reduction in sense of sanctuary or solitude.
WLQ 5	- Perceived Naturalness - Rugged or Challenging Terrain - Remoteness and Inaccessibility - Localised reduction in perceived naturalness, lack of human artefacts and evidence of contemporary land use from hydroelectric dams and reservoirs	Fulfilment from Physical Challenge

3.2 Desk Study

Map of Relative Wildness

- 3.2.1 The Map of Relative Wildness for the study area (see **Figure 7.5.2**) shows a general pattern of highest wildness focussed around the higher ground and mountain peaks. A lower degree of wildness is shown within the glens which reach in from the edges of the WLA where tracks and paths are typically present. Within the study area, this includes Loch Ericht, particularly its northern end, the area around Lochan na h-Earba, leading towards Lùbvan, and Glen Pattack and surrounding areas of Loch Pattack. Wildness is shown to gradate to more moderate levels away from the tracks through these areas to the surrounding slopes.
- 3.2.2 The highest area of continuous wildness within the study area is shown to be south of Beinn a' Chlachair and An Lairig and west of Loch Ericht, covering the mountain groups of Aonach Beag and Ben Alder. A high, but slightly lesser degree of wildness is indicated over the upland parts of the study area further to the north (the Ardverikie Mountains of Beinn a' Chlachair, Creag Pitridh and Geal Charn; and Beinn Eilde, and The Fara to the east of River Pattack), with more focussed areas of higher wildness within more discrete corries and ravines, and around some of the crags and summits.
- 3.2.3 A generally more moderate degree of wildness is illustrated for hills to the east of Loch Ericht, on the boundary of the Cairngorms National Park (CNP).

Jenks 8 Analysis

- 3.2.4 Analysis of the WLA in relation to the Jenks 8 classification (see **Figure 7.5.4**) shows that areas of Classes 7 and 8 (the two highest classes which are required to be present in sufficient expanse in order for the WLA to be identified) are present across most of the higher mountain areas. A notable contiguous coverage of Class 8 is shown across the more remote southern mountain groups of Aonach Beag and Ben Alder, set within a large area of Class 7 which covers surrounding hills and slopes. Class 7 extends to cover the majority of the more northerly Ardverikie mountains, focussed on the central broad summit of Geal Charn, with narrower areas reaching out across Creag Pitridh, Beinn a' Chlachair and Meall Buidhe. Within this area, more discrete patches of Class 8 cover Loch a' Bhealaich Leamhain and a small area to the east of Creag Pitridh. Smaller areas of Class 7 with limited, isolated patches of Class 8 are present to the east of Glen Pattack,

whilst areas to the south-east of Loch Ericht and west of Strath Ossian form part of larger areas which extend outwith the study area.

- 3.2.5 Remaining areas of upland within the study area are typically of Class 6 with the slopes of the more accessible glens including Loch Ericht, Lochan na h-Earba, Glen Pattack and Strath Ossian, tending to be Class 5. Class 4 and occasional pockets of Class 3 cover areas where the more notable vehicular tracks are present, through these glens.

Changes to the Baseline

- 3.2.6 Changes to the baseline of the study area since 2014, when the Map of Relative Wildness was completed, mostly relate to small and medium scale hydro works and localised track upgrades, focussed around the River Pattack, and Abhainn Ghuilbinn on the very edge of the WLA.

River Pattack Hydro Scheme

- 3.2.7 The River Pattack Hydro Scheme became operational in 2017 and includes a dam built on the River Pattack at the edge of a small forest plantation which impounds a small reservoir around 500 m long with some localised track realignment. This was further increased in 2021 with the construction of a small weir further upstream, leading to raising of the top water level in Loch Pattack by 1.5 m. The new and upgraded tracks and structures associated with this scheme will have had some influence on the presence of modern artefacts within this area, although are largely located in areas where lower levels of this attribute are already indicated on the attribute mapping (see **Figure 7.5.5**). Similarly, the presence of these structures and potential drawdown may lead to a localised increase in sense of contemporary land use within this area. However, given the relatively low levels of these attributes already shown in these areas in the 2014 mapping, it is considered that this would not lead to any very noticeable changes to the Map of Relative Wildness.

Ghuilbinn Hydro Scheme

- 3.2.8 The Ghuilbinn Hydro Scheme which became operational in 2018 involves two intake structures close to the boundary of the WLA on the Abhainn Ghuilbinn and a powerhouse building just outside the WLA, all set close to a coniferous forest plantation. A track connects the structures, mostly outwith the WLA and follows the edge of the forest. Mapping suggests this part of the WLA to have a medium to low level of relative wildness and, given the low profile of the structures and presence of the adjacent forest plantation, it is considered that this development would have only a very localised influence on the strength of wildness within the WLA and would be unlikely to lead to any noticeable changes to the Map of Relative Wildness.

Other Developments

- 3.2.9 Several wind farms have been built since 2014 within the wider landscape surrounding WLA14. The closest of these operational developments is Stronelaig Wind Farm which lies around 12 – 15 km to the north of the WLA boundary. In addition, the proposed Cloiche Wind Farm has been consented, although not yet constructed, and would be at a similar distance, situated adjacent to Stronelaig Wind Farm. If these developments had been considered at the time the Map of Relative Wildness was produced, it is likely that this may have led to a slightly reduced calculation of wildness in some areas but given the distance from the WLA, it is considered unlikely that this would noticeably change the distribution and range of the areas of highest relative wildness displayed by the mapping.

3.3 Site Survey

3.3.1 Nine WLs have been identified and have been visited and evaluated for strength of physical and perceptual attributes and the presence of WLA Key Qualities. These locations are shown on **Figure 7.5.1** and comprise:

- WL1: Lochan na h-Earba;
- WL2: Loch a' Bhlealaich Leamhain;
- WL3: Càrn Dearg;
- WL4: Creag Pitridh;
- WL5: Beinn a' Chlachair;
- WL6: An Lairig;
- WL7: Loch Pattack Track;
- WL8: Meall na Sguabaich; and
- WL9: Geal-charn.

3.3.2 Detailed description and analysis for each WL and representative photographs are presented in **Annex 1**. A summary description for each WL is provided below:

WL1: Lochan na h-Earba

3.3.3 This WL is contained within and representative of the linear valley containing the two separate lochs of Lochan na h-Earba. It comprises a scooped, U-shaped valley contained by steep craggy hills, colonised on their lower slopes by dispersed mature woodland towards the north-eastern end. The location is accessible by around 8.5 km of track from the A87 from east or west leading to a long walk or cycle but relative ease of access by vehicle. Small hydro structures and bridges give localised influence and vehicle tracks provide a sign of human intervention and accessibility. The enclosure of the glen gives impressions of solitude although tracks maintain a feeling of connection to other peopled areas. The surrounding steep rocky crags and woodlands appear natural and rugged, and are very arresting in appearance with some sense of risk associated with the crags. All perceptual responses are present to some extent.

WL2: Loch a' Bhealaich Leamhain

3.3.4 This WL is contained within and representative of the scooped bowl-shaped valley containing Loch a' Bhealaich Leamhain. The loch is surrounded on three sides by steep, heather clad slopes, rocky crags and scree, appearing very natural, although from higher areas forest around Loch Ericht may be perceived. Fitness is required to access the WL by steep footpaths from tracks around Lochan na h-Earba or Loch Pattack which themselves lie over 5 km from public roads. Other than paths, there are no obvious signs of human intervention. However, its position as part of a mountain pass gives a sense of proximity to the more peopled landscapes on either side. Nevertheless, the deep valley is very enclosed around the loch giving a strong sense of solitude and surrounding steep crags appear arresting, challenging and give a sense of awe and perceived risk.

WL3: Càrn Dearg

3.3.5 This WL is located on the elevated rocky summit of Càrn Dearg, situated 6.8 km from the edge of the WLA and on the north-eastern edge of the greater mountain mass of Ben Alder and Aonach Beag. Gravelled vehicle tracks provide some access to the location, but a long off-road drive, cycle or walk along at least 16 km of track to Culra Lodge is required to access the location, followed by a walk of around 2 km across rough, steep ground. This leads to it feeling remote and challenging

to access with a sense of risk. The isolated Culra Lodge bothy, a few distant tracks and some areas of coniferous plantation forest around Loch Ericht, Loch Pattack and, more distantly, Loch Laggan, give some sense of contemporary land use in the wider area to the east and north, but the mountain masses to the south-west appear very natural and all of the perceptual responses are strongly present.

WL4: Creag Pitridh

- 3.3.6 This WL is located on the craggy summit of Creag Pitridh, lying 2.5 km from the WLA boundary and accessed via around 5.4 km of gravelled track from the A87, and 5 km of rough, steep footpath. It is remote from transport routes but the presence of the track and path provide some accessibility to fit individuals, used to upland walking, though considerable physical challenge is required. Visible tracks, paths and forest plantations, two residential properties and various other structures also form human artefacts and provide evidence of nearby contemporary land use within Glen Spean to the west, and there are distant views of wind turbines to the north. However, the surrounding landscape has an undeveloped and rugged character giving a sense of being on the edge of a wider remote area with arresting qualities.

WL5: Beinn a' Chlachair

- 3.3.7 This WL is located on the elevated rocky summit area of Beinn a' Chlachair, 3.3 km from the edge of the WLA. The location requires a long walk to access on foot from the public road: around 5.4 km of gravelled track, 1.8 km of rough footpath and across rough, steep ground for around 2.6 km. This gives some degree perceived remoteness and physical challenge, but areas of coniferous forest plantation, tracks and residential properties form a focus of contemporary land use in the context to the north. However, the surrounding landscape, particularly to the south has an undeveloped and rugged character giving a sense of being on the edge of a wider remote area with surrounding peaks evoking arresting and inspiring qualities.

WL6: An Lairig

- 3.3.8 This WL is located on the side of a deep trench valley with steep mountains to north and south, around 5.7 km from the edge of the WLA. It is accessed by around 4.5 km of narrow, but well-built, stalkers path from tracks around Loch Pattack and a steep hill climb of around 800 m resulting in a long journey by foot, but a less notable sense of remoteness where vehicles may be perceived on the tracks around Loch Pattack and Ben Alder Lodge. Steep, high, heather and grassy slopes with some crags appear very challenging and natural and, away from the narrow path, there are no visible human artefacts or obvious contemporary land use. The surrounding masses of mountain are arresting and there is a sense of moving into a more vast and remote landscape in this area, with the sense of solitude growing when moving further through the valley.

WL7: Loch Pattack Track

- 3.3.9 This WL is located on a vehicular track to the east of Loch Pattack and adjacent to some felled forest plantation 6.5 km from the edge of the WLA. It is easily accessed by vehicle (around 2 km) from Ben Alder Lodge and Loch Ericht but requires a long journey on foot or bike from the public road (around 10.5 km). Nevertheless, proximity to the lodge and the presence of tracks lowers the remoteness and sense of physical challenge. Nearby forestry and tracks give a sense of contemporary land use in the proximity, although the vegetative cover of the surrounding mountains appears natural and mountains and the loch appear arresting in views. The loch is a popular spot for camping and there is usually a sense of proximity to other people which reduces perceived risk, although some sense of solitude is experienced. Overall sense of wildness is less pronounced in this location.

WL8: Meall na Sguabaich

- 3.3.10 This WL is set on the edge of a shallow corrie to the east of River Pattack, around 3.6 km from the edge of the WLA and accessed from vehicle tracks at the Pattack Dam with a 2 km walk up a relatively straight-forward slope of rough grass and heather and a further approximately 8.5 km walk or cycle if not travelling in a vehicle. The elevated location has some sense of solitude with inspiring views of mountains to the west, although features in Pattack Glen including tracks, bridges and a weir which are seen throughout the walk to the location, and the dam from which access is taken, give a sense of proximity to others, limiting perceptions of risk and awe. Forest plantation is present to the west but appears relatively natural within the context.

WL9: Geal-charn

- 3.3.11 This WL is located on the elevated, boulder strewn, summit of Geal-charn on the east side of Loch Ericht, around 2.2 km from the WLA boundary. It is accessed via a combination of rough track and path for approximately 3.5 km from Balsoorran Cottages in Drumochter. The presence of the path improves accessibility and somewhat reduces sense of risk, but the ascent still requires considerable physical challenge. On the ascent and from much of the summit, the A9 dual carriageway road, railway line and properties at Dalwhinnie are seen to the east and north giving a sense of relative closeness to human activities, although the elevation of the summit still offers a sense of solitude. Forest plantations around Loch Ericht and to some extent, drawdown around the loch from hydroelectric works gives some further evidence of contemporary land use, although there is an appearance of greater remoteness and inaccessibility further to the west. Nevertheless, the surrounding expanse of mountain summits evokes a sense of awe and arresting qualities.

Strength of Wildness Analysis

- 3.3.12 Analysis of the physical and perceptual attributes and strength of wildness identified at each of the WLs is summarised in **Table 3.2**, below:

Table 3.2: Summary of Physical Attributes, Perceptual Responses and Strength of Wildness

WL	Physical Attributes					Perceptual Responses				Strength of Wildness
	Perceived Naturalness	Lack of Construction or Other Artefacts	Evidence of Contemporary Land Uses	Rugged or Challenging Terrain	Remoteness and Inaccessibility	Sense of Sanctuary or Solitude	Risk, a Sense of Awe or Anxiety	Arresting or Inspiring Qualities	Fulfilment from Physical Challenge	
WL1: Lochan na h-Earba	Medium – High	Medium	Medium	Medium	Low	Medium – High	Medium	High	Medium	Medium
WL2: Loch a’ Bhlealaich Leamhain	Medium – High	High	Medium – High	Medium – High	Medium	Medium – High	Medium	Medium	Medium	Medium – High
WL3: Càrn Dearg	Medium – High	Medium – High	Medium	High	Medium – High	Medium – High	Medium	High	High	Medium – High
WL4: Creag Pitridh	Medium	Medium – Low	Low	Medium – High	Low – Medium	Medium	Medium	High	Medium – High	Medium
WL5: Beinn a’ Chlachair	Medium	Low – Medium	Low	Medium – High	Medium	Medium	Medium	High	Medium – High	Medium
WL6: An Lairig	High	High	High	Medium – High	Medium – High	High	Medium – High	High	High	High
WL7: Loch Pattack Track	Medium	Low – Medium	Low – Medium	Low – Medium	Medium	Medium	Low	High	Medium	Low – Medium
WL8: Meall na Sguabaich	Medium – High	Medium	Medium – High	Low – Medium	Low – Medium	Medium	Low – Medium	Medium	Medium	Medium
WL9: Geal-charn	Low – Medium	Low – Medium	Low	Medium	Medium	Medium	Low – Medium	High	Medium	Medium

WLA Strength of Wildness

- 3.3.13 The desk study has identified a generally Medium or Medium – High strength of wildness across the study area. Although the rugged landscape of mountains leads to arresting and inspiring qualities being experienced generally throughout the study area, the accessibility and contemporary land use suggested by the frequent tracks and paths that are present, and intervisibility with plantation forest around Loch Pattack, Loch Ericht, and outwith the WLA around Glen Spean, leads to a sense of connection to more populated areas and impressions of people being present throughout much of the study area. This reduces the sense of perceived risk, and locally the remoteness and fulfilment of physical challenge which influences the overall sense of wildness that is experienced.
- 3.3.14 From the majority of elevated areas, expansive views of the mountainous landscape and rugged terrain evoke the perceptual responses of wild land, but the strength of wildness is moderated by the appearance of surrounding land use activities either within, or outwith the WLA, including forestry, tracks, bridges or buildings. More notable sense of wildness is experienced from lower, more contained areas where there is less influence from these external landscapes, and away from the major through glens, (Glen Pattack, Loch Ericht and Lochan na h-Earba) where tracks are more influential. The highest perception of wildness was identified at WL6 (An Lairig), a deep trench-like glen, where there is very limited sign of any human activity and a sense of moving into a greater and more remote area to the south and west. This sense of being closely connected to a greater area of wildness was also experienced at WL3 Càrn Dearg a remote mountain summit containing An Lairig to the south, although greater influence of land use around Loch Pattack and Loch Ericht slightly tempers the wild land experience in this area.
- 3.3.15 A relatively strong but localised sense of wildness was also identified at WL2 (Loch a' Bhealaich Leamhain) due to a more focussed and individual experience obtained within the enclosure of the valley, where there is limited sign of human activities. However, this is localised due to the influence of forestry and other activities which are seen around Glen Spean and Loch Pattack when the enclosure of the glen is left and the area is considered too small on its own to have the highest level of wildness.
- 3.3.16 The strength of wildness was considered to be lowest at WL7 (Loch Pattack Track) where the influence of access tracks, forestry and people using the landscape is strongest, particularly as a result of proximity to Ben Alder Lodge. Although all the attributes and responses of wild land were found to be present, there is a sense of being on the edge of the WLA in this area.
- 3.3.17 Overall, there is a sense of the study area being on the periphery of the wild land area, with land use to south, east and west tempering the strength of wildness that is experienced. Wildness strengthens when moving south-westwards towards Ben Alder and Aonach Beag, with any areas of higher wildness further to the north and east being contained and isolated, such as at Loch a' Bhealaich Leamhain. This is broadly reflective of the Map of Relative Wildness. However, site survey suggests that the strength of wildness experienced is slightly less than that indicated on the mapping in areas such as the Ardverikie Munros (Geal Charn, Beinn a' Chlachair and Creag Pitridh) and to the east of River Pattack, due to the relatively small size, the isolated nature of these areas from the wider WLA, and their proximity, accessibility and visual connection to more populated and managed areas around Glen Spean, Loch Laggan, Glen Pattack and Loch Ericht.

WLA Key Qualities

- 3.3.18 **Table 3.3** summarises the baseline analysis of the WLA Key Qualities from each of the nine WLS:

Table 3.3: Baseline Presence of WLQs

WLQ Location	WLQ1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features	WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas	WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk.	WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness
WL1: Lochan na h-Earba	Present The striking glen with steep craggy enclosing slopes is a notable feature of this area.	Not Present Connection to the mountain interior is not perceived due to the enclosed qualities and the relative accessibility of the WL.	Present This is a popular area for recreation.	Present The lochs are a notable feature of the location. Although managed, they appear mostly natural and limit accessibility to some degree.
WL2: Loch a' Bhealaich Leamhain	Present Distinctive bowl-shaped valley with qualities of a 'hidden' loch but less influence of mountains.	Not Present Proximity to less wild landscapes around Loch Laggan and Loch Ericht / Loch Pattack is easily perceived so area feels narrow and unconnected to the larger interior.	Present The area is visited by walkers due to the presence of paths.	Present The loch is a key landscape element of the location and affects accessibility although is isolated without influence of other waterbodies.
WL3: Càrn Dearg	Present Striking mountains and glens are clearly evident and are arresting in nature.	Partially present Sense of being on the edge of the mountain interior due to contemporary land use in the easterly / south-easterly context.	Present Peak is accessed by walkers, and others may be evident in the surrounding area such as Culra Bothy and tracks around River Pattack, but visitor access is not a defining characteristic.	Partially present Some lochs and rivers are evident but generally distant, forming part of the overall context.

WLQ Location	WLQ1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features	WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas	WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk.	WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness
WL4: Creag Pitridh	Present Arresting mountains and glens, are strongly representative of the WL.	Partially present There is some connection to the mountain interior in the south-westerly context but close influence of contemporary land use to the north and west.	Present The area is popular with walkers and clear access routes in the wider landscape affect sense of solitude.	Partially present Some lochs and rivers are evident, forming part of the overall context but do not strongly contribute to the wild land qualities at the location.
WL5: Beinn a' Chlachair	Present Arresting mountains and glens, are strongly representative of the WL.	Partially present Some sense of being on the edge of the mountain interior but the connection is less pronounced with more influence from contemporary land use in Glen Spean.	Present Summit and surrounding peaks are visited by walkers and tracks and other areas used by others which reduces sense of solitude to some extent.	Partially present Some lochs forming part of the wider context, mostly outwith the WLA and are not a strong representative element of the wild land qualities at the location.
WL6: An Lairig	Present Surrounding mountains and large-scale trench-like glen are striking.	Partially present There is a sense of approach into a more extensive wild interior in this area.	Partially present WL is not on any of the most obvious walking routes but likely used by stalkers.	Partially present A burn follows the glen and peat haggings is evident at the watershed but this is not a strongly contributing element of the wildness experienced.
WL7: Loch Pattack Track	Partially present Mountains are seen in the surrounding landscape and are arresting but not immediately present at the WL.	Not present Although there is an appearance of the mountains stretching into a greater area of wildness, there is no sense of the WL being within this interior.	Present Popular recreational area.	Present Loch Pattack and surrounding bog areas are notable although tracks around the loch assist access and reduce the loch's sense of naturalness slightly.

WLQ Location	WLQ1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features	WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas	WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk.	WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness
WL8: Meall na Sguabaich	Partially present Mountains are seen in parts of the surrounding landscape but the nearby landscape is less remarkable or striking.	Not present Features around the River Pattack disconnect this WL from the more remote interior.	Partially present Area may be used by stalkers but less notable for recreation although areas around River Pattack are more used.	Partially present Limited appearance of River Pattack and other burns in the surrounding landscape but not a key contributory element to the wild land experience at this WL.
WL9: Geal-charn	Present Surrounding mountains clearly present and form the main contribution to strength of wildness.	Partially present There is some connection to the more remote interior to south-west reduced by proximity of contemporary land use.	Partially present Summit is visited by walkers but proximity to the A9 reduces the perceived sense of solitude.	Partially present Loch Ericht forms a significant barrier feature to the remainder of the WLA but surrounding forest areas limit the sense of naturalness associated with it.

4. Assessment of Effects

4.1 Wild Land Sensitivity

4.1.1 The sensitivity of each WLA Key Quality has been evaluated at each of the WLs (see **Annex 1**) in accordance with the criteria in **Table 2.4**. The sensitivity appraisal is summarised in **Table 4.1**.

Table 4.1: WLQ Sensitivity

Location \ WLQ	WLQ 1: Mountain ranges and glens of varying landform...	WLQ 3: An extensive and remote mountain and peatland interior...	WLQ 4: A large area which is visited by many people...	WLQ 5: An extensive pattern of lochs, lochans, burns and bog...
WL1: Lochan na h-Earba	High	N/A	Medium – High	Medium – High
WL2: Loch a' Bhealaich Leamhain	Medium – High	N/A	Medium – High	High
WL3: Càrn Dearg	Medium – High	Medium	Medium	Low
WL4: Creag Pitridh	Medium	Low – Medium	Medium	Low
WL5: Beinn a' Chlachair	Medium	Low – Medium	Medium	Low
WL6: An Lairig	High	Medium	Low	Low
WL7: Loch Pattack Track	Medium	N/A	Medium	Medium
WL8: Meall na Sguabaich	Low	N/A	Low	Low
WL9: Geal-charn	Medium	Low	Low – Medium	Low

4.1.2 Sensitivity for each of the included WLQs within the study area is summarised as follows:

WLQ 1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features.

4.1.3 This WLQ is present at most WLs which are situated on elevated mountain summits or within notable glens with arresting qualities and qualities of remoteness and naturalness. However, it is considered to be only partially present at the two WLs located to the east of the River Pattack / Loch Pattack area (WL7 (Loch Pattack Track) and WL8 (Meall na Sguabaich)). In these areas the mountains appear arresting but are less immediately present so the influence is indirect.

4.1.4 Sensitivity to change of the type proposed is highest in the glen areas where there are high levels of arresting qualities which are most closely associated with the immediately enclosing glen-sides and crags with a high degree of ruggedness and naturalness. This is **High** within Lochan na

h-Earba glen, and An Lairg but **Medium – High** at Loch a' Bhealaich Leamhain where there is less influence of the mountains and a closer connection to the less rugged easterly landscape.

- 4.1.5 Sensitivity is considered to be slightly less on the mountain summit areas, where the arresting qualities relate to a much wider vista of surrounding mountains which is less susceptible to change. This is **Medium** around the mountains summits that have the closest relationship to other developed or managed areas including the Ardverikie Mountains of Creag Pitridh (WL4) and Beinn a' Chlachair (WL5), and also Geal-charn (WL9) which is influenced by development around the A9. Sensitivity is **Medium – High** for the more remote summits further from the edges of the WLA and likely to range to **High** with moving further south-west into the WLA.
- 4.1.6 Sensitivity is **Low** or **Medium** around River Pattack and Loch Pattack where the mountains are less immediately present, and the landform is less rugged.

WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas

- 4.1.7 This WLQ is not present in the more enclosed glen areas WL1 (Lochan na h-Earba) and WL2 (Loch a' Bhealaich Leamhain) where tracks and paths introduce a sense of accessibility and the proximity to nearby more managed areas is experienced when accessing the locations. It is also considered to be not present at WL7 (Loch Pattack Track), WL8 (Meall na Sguabaich), towards the east of the WLA, where there is a stronger sense of being close to the WLA's edge and visible features and landuse create a disconnect with the remainder of the WLA. None of the WLs visited were considered to be within the remote interior but the WLQ is considered to be partially present across the mountain summit areas surrounding Loch a' Bhealaich Leamhain and Loch Ericht where there is a sense of connection to the more remote interior to the south-west, and at WL6 (An Lairig) where there is a feeling of transitioning through the glen into the more remote interior and a strong sense of solitude.
- 4.1.8 As the WLQ is not fully present at any of the WLs, sensitivity is considered to range between Low and Medium within the majority of the study area, being **Medium** at WL3 (Càrn Dearg) and WL6 (An Lairig), the most south-westerly of the WLs, where the connection to the interior is stronger and consequently the susceptibility to change for the key attributes of remoteness and sense of sanctuary is greater, **Low – Medium** at WL4 (Creag Pitridh) and WL5 (Beinn a' Chlachair) and **Low** at WL9 (Geal-charn) where there is greater influence from other managed and inhabited areas on the edge of and outwith the WLA. Sensitivity would increase to **High** when moving further into the more remote south-western part of the study area around Beinn Alder and Aonach Beag but these areas would not have intervisibility with the Proposed Development. The WLQ is absent from all areas to the east of the Ardverikie Munros.

WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk.

- 4.1.9 This WLQ was found to be present to some extent at all the WLs as there is potential for all parts of the WLA to be visited by people. However, a partial presence was noted at WL6 (An Lairig) and WL8 (Meall na Sguabaich) which are less noticeably accessed by members of the public and WL9 (Geal-charn) due to its greater accessibility and reduced sense of solitude resulting from proximity to the A9.
- 4.1.10 Sensitivity for this WLQ is highest at the more popular locations where changes affecting the attributes and responses which contribute most to the sense of wildness experienced may be susceptible to change. These mostly include the accessibility, sense of solitude and a lack of artefacts or contemporary land use. However, where the area is popular, the presence of these

attributes / responses is already somewhat reduced in strength which reduces susceptibility slightly. Sensitivity is therefore considered to be **Medium – High** at WL1 (Lochan na h-Earba) and WL2 (Loch a' Bhealaich Leamhain) and **Medium** at WL7 (Loch Pattack Track) where there is greater influence of accessibility.

- 4.1.11 At mountain summit locations which are also visited by people, the arresting and inspiring qualities contribute more strongly to the strength of wildness experienced, particularly for those summits located closer to the edges of the WLA. These areas are susceptible in terms of potential changes to accessibility and sense of solitude, but less susceptible in relation to arresting qualities which are more associated with the wider mountain vistas. Sensitivity for these summit areas is therefore considered to be **Medium**. For areas with less popularity for recreation where the WLQ is considered to be only partially present, the sensitivity is further reduced, being **Low** or **Low – Medium**.
- 4.1.12 **WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness.**
- 4.1.13 This WLQ was identified to be present at WL1 (Lochan na h-Earba), WL2 (Loch a' Bhealaich Leamhain) and WL7 (Loch Pattack Track) where watercourses, waterbodies or bog areas have a noticeable influence on the location. The WLQ is considered to be partially present at all the remaining WLs where these features are present within the context but not closely influential on the character or experience of wildness.
- 4.1.14 Higher sensitivity is identified for areas closely associated with waterbodies or lochs where these contribute strongly to the sense of naturalness and wildness. This is **High** at WL2 (Loch a' Bhealaich Leamhain), and **Medium – High** at WL1 (Lochan na h-Earba) due to existing management of the loch. Sensitivity is **Medium** at WL7 (Loch Pattack Track) because, although there is greater influence of the waterbodies and bogs, the perceived naturalness is reduced by tracks which formalise the edges of the loch. Sensitivity is **Low** for the elevated mountain summit locations and other areas where the WLQ is only partially present, as the contribution of waterbodies / watercourses and bog to the overall strength of wildness experienced is limited.

4.2 Magnitude of Change

Changes to Physical Attributes and Perceptual Responses

Physical Attributes

- 4.2.1 The Proposed Development would introduce new construction works and permanent features, focussed within three areas within the WLA:
- Lochan na h-Earba;
 - Loch a' Bhealaich Leamhain; and
 - The south-western flank of Creag Pitridh.
- 4.2.2 Around Lochan na h-Earba the construction of a large powerhouse and the Shuas Dam at the south-western end of the loch, and the Shios Dam, just outwith the WLA at the north-eastern end of the loch (including borrow pits and construction compounds), along with the associated raising of top water level and operational fluctuations of drawdown (see **Figure 7.5.6a** and **Figures V3a-6a-f, V3a-7a-f and V3a-9a-f** from the main LVIA) would add modern artefacts, increase the presence of contemporary land use and reduce the perceived naturalness of the loch. The upgrading and construction of new access tracks, notably a new track around the northern side of the loch, would also increase accessibility, although the elevated loch levels

would also prevent access between the two existing lochans. These changes would be evident within the glen, and also from surrounding summits and slopes.

- 4.2.3 Planting for screening purposes around the powerhouse, and additional fencing and planting which is proposed for biodiversity net-gain (BNG) purposes around the loch may also lead to some increase in the sense of contemporary land use, although in the long term, the growth of natural patterns of native woodland in these areas, may not necessarily appear as a human intervention.
- 4.2.4 At Loch a' Bhealaich Leamhain (see **Figure 7.5.6b** and **Figure V3a-8a-f** of the main LVIA), the construction of a large dam at its northern end and semi-buried intake structures at the southern end (including borrow pits and temporary construction compound areas) and associated raising of the top water level and operational fluctuations of drawdown, would introduce new modern artefacts and contemporary land use to an area with few existing influences, and would reduce the perceived naturalness of the loch. New access tracks to this area from Lochan na h-Earba and around the loch would also increase accessibility and remove some challenge in accessing the area. These changes would be notable within the valley and from surrounding slopes, and would also affect areas to the west around Loch Pattack (see **Figure 7.5.6g** and **Figure V3a-10a-f** from the main LVIA) and some slopes and summits to the east of Loch Ericht where the downstream face of the Leamhain Dam would be perceived (see **Figure 7.5.6i** and **Figure V3a-11a-f** from the main LVIA). However, the change on these areas to the east would be less notable, due to the influence of existing contemporary land use, including forest areas and tracks around Loch Pattack and Loch Ericht.
- 4.2.5 On the south-western flank of Creag Pitridh, construction of three surge shafts, a tunnel adit and a track traversing the slopes to reach these locations, would introduce new localised modern artefacts which would increase the perceptions of contemporary land use in the area, and increase accessibility. There would also be some indirect change relating to the construction activities at the Shuas Dam in some areas, although this would be less noticeable during operation with a vegetated downstream face to this dam. The vehicle access may also reduce some perceptions of challenge in the ascent of this peak. These features would be influential in the close locality and more widely across the slopes to the south and south-west, being seen in combination with construction activities at the Shuas dam area from parts of the Coire and some summit areas of Beinn a' Chlachair (see **Figure 7.5.6-e** and **Figure V3a-5a-f** from the main LVIA).

Perceptual Responses

- 4.2.6 Changes to perceptual responses would be most notable in areas close to the proposed features, within and around the valleys containing Lochan na h-Earba and Loch a' Bhealaich Leamhain.
- 4.2.7 Construction works would increase activity and reduce the sense of sanctuary and solitude perceived within these areas. The presence of many people may also reduce the sense of perceived risk and awe because there would be an awareness of proximity to help and safety. However, in some cases, existing paths and tracks or visibility of developed areas outwith the WLA already give a sense of others within the wider area. During operation, the numbers of people in the landscape would not be substantially greater than existing, with the exception of a small number of people occupying the powerhouse. However, the presence of permanent features and tracks could still create a sense of a more populated and managed landscape and a closer connection to people. Nevertheless, the sense of sanctuary and solitude, and perceived risk at this stage of the Proposed Development would be closer to existing levels in most areas, with the exception of areas close to the proposed powerhouse.

- 4.2.8 The addition of new tracks, particularly during construction when these are being regularly used by vehicles, would improve accessibility and could locally influence the fulfilment of physical challenge, where routes are made easier to traverse and parts of the landscape would become closer to new tracks or paths. This change would be most notable in areas around the southern end of Loch a' Bhealaich Leamhain and Creag Pitridh, but also along the north side of Lochan na h-Earba where a new track would allow vehicles to travel around the full circumference of the loch and enable easier access on foot and by bike. It would be less notable further from the Proposed Development, where there would be no direct improvements to accessibility.
- 4.2.9 Construction works and permanent features would also form new visible, man-made features and human influences in the landscape which could lead to changes in arresting and inspiring qualities. This would be more perceptible from lower areas such as within the valleys of Lochan na h-Earba and Loch a' Bhealaich Leamhain and around Loch Pattack, where these qualities are evoked by more immediate landscape features such as lochs and enclosing crags, and new features including dams, reservoirs and the powerhouse would either change these features, or form a distraction or obstruction, leading to a predominance of contemporary land use and reduction in perceived naturalness. This response would also be changed in some areas to the east of the Proposed Development, such as the area around Loch Pattack, where the appearance of the Leamhain Dam would, in part, interrupt the connection with the wider undeveloped landscape, and reduce the apparent extent of the WLA.
- 4.2.10 From the higher summits, arresting qualities are evoked more by the extensive surrounding layers of mountains and glens, and although the Proposed Development may form a feature in the landscape below, this would not lead to a very noticeable change on the arresting qualities at the WL.

Summary of Magnitude of Change on Physical Attributes and Perceptual Responses

- 4.2.11 The magnitude of change for physical attributes and perceptual responses at each of the WLS is considered in detail in **Annex 1** and summarised in **Table 4.2** during construction, and **Table 4.3** during operation. Representative wirelines illustrating visibility of the Proposed Development from each of the WLSs are included as **Figures 7.5.6a – 7.5.6i**. It should be noted that these are bare-ground wirelines and do not account for any proposed tree planting or local landform mitigation measures.

Table 4.2: Magnitude of Change - Physical Attributes and Perceptual Responses (Construction)

WL	Physical Attributes					Perceptual Responses			
	Perceived Naturalness	Lack of Construction or Other Artefacts	Evidence of Contemporary Land Uses	Rugged or Challenging Terrain	Remoteness and Inaccessibility	Sense of Sanctuary or Solitude	Risk, a Sense of Awe or Anxiety	Arresting or Inspiring Qualities	Fulfilment from Physical Challenge
WL1: Lochan na h-Earba	High	High	High	Negligible	Low	High	Low	Medium	Low
WL2: Loch a' Bhlealaich Leamhain	High	High	High	Medium	Medium	High	Low	Medium	Low
WL3: Càrn Dearg	Low – Medium	Medium – High	Medium – High	Negligible	Negligible	Low – Medium	Low	Low	Negligible
WL4: Creag Pitridh	Low	Low – Medium	Low	Negligible	Low	Medium	Low	Low	Low
WL5: Beinn a' Chlachair	Low	Low	Low	Low	Low	Low – Medium	Low	Low	Low
WL6: An Lairig	Negligible	Medium	Medium	Negligible	Low	Medium	Low	Low	Low
WL7: Loch Pattack Track	Low	Low – Medium	Low – Medium	Negligible	Low	Low	Negligible	Low	Low
WL8: Meall na Sguabaich	Negligible	Low	Low	Negligible	Negligible	Negligible	Negligible	Low	Negligible
WL9: Geal-charn	Low – Medium	Medium	Medium	Negligible	Negligible	Low	Negligible	Low	Negligible

Table 4.3: Magnitude of Change - Physical Attributes and Perceptual Responses (Operation)

WL	Physical Attributes					Perceptual Responses			
	Perceived Naturalness	Lack of Construction or Other Artefacts	Evidence of Contemporary Land Uses	Rugged or Challenging Terrain	Remoteness and Inaccessibility	Sense of Sanctuary or Solitude	Risk, a Sense of Awe or Anxiety	Arresting or Inspiring Qualities	Fulfilment from Physical Challenge
WL1: Lochan na h-Earba	Low – Medium	Medium	Low – Medium	Negligible	Low	Low	Low	Low	Low
WL2: Loch a’ Bhlealaich Leamhain	Low – Medium	High	Medium	Low	Low – Medium	Low	Low	Low – Medium	Low – Medium
WL3: Càrn Dearg	Low	Medium – High	Medium	Negligible	Negligible	Low	Low	Negligible	Negligible
WL4: Creag Pitridh	Low	Low	Low	Negligible	Low	Negligible	Negligible	Negligible	Negligible
WL5: Beinn a’ Chlachair	Negligible	Low	Low	Negligible	Negligible	Negligible	Negligible	Negligible	Low
WL6: An Lairig	Low	Medium	Medium	Negligible	Negligible	Low	Negligible	Low	Negligible
WL7: Loch Pattack Track	Low	Low – Medium	Low – Medium	Negligible	Negligible	Low	Negligible	Low	Negligible
WL8: Meall na Sguabaich	Negligible	Low	Low	Negligible	Negligible	Negligible	Negligible	Low	Negligible
WL9: Geal-charn	Low	Medium	Medium	Negligible	Negligible	Negligible	Negligible	Low	Negligible

Changes to Presence of WLQs

4.2.12 The magnitude of change for each WLQ has been evaluated at each of the WLs (see **Annex 1**) in accordance with the criteria in Table 2.4. The results of this evaluation are summarised in **Table 4.4**.

Table 4.4: Magnitude of Change to WLQs (Construction)

Location \ WLQ	WLQ 1: Mountain ranges and glens of varying landform...	WLQ 3: An extensive and remote mountain and peatland interior...	WLQ 4: A large area which is visited by many people...	WLQ 5: An extensive pattern of lochs, lochans, burns and bog...
WL1: Lochan na h-Earba	Medium	N/A	Medium – High	Medium – High
WL2: Loch a' Bhealaich Leamhain	Medium	N/A	Medium – High	High
WL3: Càrn Dearg	Low – Medium	Negligible	Low	Low
WL4: Creag Pitridh	Low	Low	Medium	Low
WL5: Beinn a' Chlachair	Low	Negligible	Low – Medium	Negligible
WL6: An Lairig	Low	Low – Medium	Low	Negligible
WL7: Loch Pattack Track	Medium	N/A	Medium	Low
WL8: Meall na Sguabaich	Low	N/A	Negligible	Negligible
WL9: Geal-charn	Low – Medium	Low	Low	Low

Table 4.5: Magnitude of Change to WLQs (Operation)

Location \ WLQ	WLQ 1: Mountain ranges and glens of varying landform...	WLQ 3: An extensive and remote mountain and peatland interior...	WLQ 4: A large area which is visited by many people...	WLQ 5: An extensive pattern of lochs, lochans, burns and bog...
WL1: Lochan na h-Earba	Low	N/A	Low	Medium
WL2: Loch a' Bhealaich Leamhain	Low – Medium	N/A	Low	Medium
WL3: Càrn Dearg	Low	Negligible	Low	Low
WL4: Creag Pitridh	Negligible	Negligible	Negligible	Negligible
WL5: Beinn a' Chlachair	Negligible	Negligible	Negligible	Negligible
WL6: An Lairig	Low	Low	Negligible	Negligible
WL7: Loch Pattack Track	Low	N/A	Low	Low

Location \ WLQ	WLQ 1: Mountain ranges and glens of varying landform...	WLQ 3: An extensive and remote mountain and peatland interior...	WLQ 4: A large area which is visited by many people...	WLQ 5: An extensive pattern of lochs, lochans, burns and bog...
WL8: Meall na Sguabaich	Low	N/A	Negligible	Negligible
WL9: Geal-charn	Low	Low	Negligible	Low

4.2.13 Magnitude of change for each of the included WLQs within the study area is summarised as follows:

WLQ 1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features.

4.2.14 Magnitude of change for this WLQ would be greatest in areas where direct change would be experienced and the arresting qualities associated with the mountain landscape and glens would be compromised by the introduction of modern artefacts, contemporary land use and a reduction in perceived naturalness which would in turn affect the perceptual responses of sanctuary and solitude, and risk / awe.

4.2.15 These changes would be most noticeable within the valleys of Lochan na h-Earba (see **Figure 7.5.6a** and **Figures V3a-6a-f** and **V3a-6a-f** from the main LVIA) and Loch a' Bhealaich Leamhain (see **Figure 7.5.6b**) due to the increased human presence which would take place during construction, and the more managed appearance of the lochs and influence of the dams and large powerhouse during operation. However, although there would be noticeable changes to contemporary land use, modern artefacts and sense of solitude, particularly during construction, it is the arresting qualities of the enclosing crags and slopes which contribute most noticeably to the presence of the WLQ in these areas and, whilst the Proposed Development would form a distraction within the setting, these physical features would continue to have this influence. Planting across a wide area around Lochan na h-Earba for BNG purposes may create some greater sense of enclosure in this area in the longer term, but due to the steepness of the terrain, it is likely that crags and steep slopes would still provide arresting qualities.

4.2.16 In areas on the downstream side of the Leamhain Dam around Loch Pattack (see **Figure 7.5.6g** and **Figure V3a-10a-f** from the main LVIA), the area of change would be more focussed but would affect the western context in which the setting of mountains is experienced. However, the arresting qualities of the surrounding physical landform would still be influential.

4.2.17 The degree of change would be less noticeable within Coire Pitridh where the access route between upper and lower dam and the surge shaft and tunnel adit would be located, and surrounding summits (see **Figures 7.5.6d** and **7.5.6e** and **Figures V3a-4a-f** and **V3a-4a-f** from the main LVIA), because there is already greater influence of contemporary land use in Glen Spean affecting these areas and the WLQ is less noticeably present. There would also be less notable change in presence of the WLQ across the higher summits and areas further from the Proposed Development where there would be less change to the perceptual response of arresting and inspiring qualities, which are aroused by the wider context of mountains.

4.2.18 Magnitude of change is therefore predicted as follows:

- During Construction:
 - **Medium – High** within the areas around Lochan na h-Earba and Loch a' Bhealaich Leamhain, where direct change would take place but the arresting qualities of surrounding crags and slopes would still be present;
 - **Medium**, in lower, lying valley areas downstream of the Leamhain Dam to the east for around 5 – 6 km, where the works would form a prominent interruption within the western mountainous setting, graduating to **Low – Medium** on the higher slopes and summits directly overlooking this area where works at the Leamhain Dam would be distracting but the WLQ is more associated with the wider mountain landscape to the south and west;
 - **Low** across summit areas surrounding Lochan na h-Earba (including Binnein Shuas, Binnein Shios, and the summits of the Ardverikie mountains), and other lower lying areas within 5 km of the north-western edge of the WLA (including Coire Pitridh) where there is a close visual influence of contemporary land use in Glen Spean, and the WLQ is more notably experienced in the south-westerly context; and
 - **Low** across other more distant glen, slope and summit areas, including areas to the east of River Pattack where the WLQ is less noticeably present, and areas to the south-west of the Proposed Development where a stronger influence of the WLQ is experienced to the south and west and the Proposed Development would be a less noticeable feature within this context.
- During operation:
 - **Low – Medium** within the area around Loch a' Bhealaich Leamhain, where the dam and reservoir would add a prominent new modern artefact and contemporary land use, and reduce perceived naturalness of the loch, but sense of solitude and arresting qualities would continue to be noticeably present.
 - **Low** within areas around Lochan na h-Earba where direct change would increase presence of modern artefacts and contemporary land use, and reduce perceived naturalness of the loch, but sense of solitude and arresting qualities relating to the physical landform would be less noticeably changed from the existing levels.
 - **Low** in areas around Loch Pattack and surrounding high summits, where the dam would form a prominent new artefact within a setting influenced by existing contemporary land use, but arresting qualities of the mountainous areas would continue to have similar influence; and
 - **Negligible** elsewhere, where there would be a barely perceptible change to the presence and strength of the WLQ.

WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas.

4.2.19 Magnitude of change for this WLQ would be generally low, because of the position of the Proposed Development close to the edge of the WLA. None of the WLs visited were considered to fully evoke all the elements of this WLQ. Change would occur in areas where an increase in the sense of contemporary land use and modern artefacts at closer proximity within the landscape would lead to areas feeling closer to the edge of the WLA and further from the more remote interior. This is predicted to be more noticeable in An Lairig (see **Figure 7.5.6f**), where there is very little existing influence of contemporary land use. There would also be some change in the presence of this WLQ where the Proposed Development would form an

interruption to the connection to the south-westerly or westerly context which would occur across some summits and slopes situated to the east of the Proposed Development which are not already isolated from the WLA interior by other contemporary land use or modern artefacts.

4.2.20 Magnitude of change is therefore predicted as follows:

- During construction:
 - **Low – Medium** across the north-facing slopes of An Lairig as far as Coire Cheap, where the transition into the more remote interior landscape is felt and construction at the Leamhain dam would noticeably increase the presence of modern artefacts, contemporary land use and accessibility and would noticeably affect the sense of solitude, graduating to **Low** and **Negligible** when moving westwards through the valley as the influence of the works decreases and the WLQ becomes more strong.
 - **Low** across parts of the higher summits where the construction works would form a perceptible area of activity and disturbance within south-westerly or westerly views where the connection to the more remote interior is perceived, including parts of the Ardverikie mountains (Creag Pitridh and Geal Charn) and higher level areas to the east of Loch Ericht.
 - **Negligible** across the higher summit areas and slopes where a close connection to existing contemporary land use around Loch Pattack, Loch Ericht and Glen Spean already gives a sense of being closer to the edge of the WLA including Càrn Dearg and Beinn a' Chlachair.
- During Operation:
 - **Low** across the north-facing slopes of An Lairig as far as Coire Cheap where the Leamhain Dam would give a sense of being closer to modern infrastructure, but the sense of solitude and moving into a more remote area would remain.
 - **Low** on higher summit and slopes to the east of Loch Ericht where the Leamhain Dam would form a perceptible feature within the westerly context where the WLQ is partially experienced and increase the influence of contemporary land use.
 - **Negligible** in all other areas where there may be a perception of closer built structure or access within the landscape, but the awareness of the WLA becoming increasingly remote further to the southwest would be experienced at similar levels to existing.

WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk.

- 4.2.21 Magnitude of change for this WLQ would be greatest where the experience of wildness obtained by visitors would be changed, particularly in terms of perceived accessibility, presence of modern artefacts and contemporary land use, and reduced sense of solitude or arresting qualities. This would be most notable during construction due to the increase in presence of people, vehicles and other construction facilities, particularly around the construction areas for the proposed dams, the powerhouse, borrow pits and construction compounds, focussed in the Lochan na h-Earba and Loch a' Bhealaich Leamhain areas and to some extent Coire Pitridh and Loch Pattack. However, access would be retained in these areas for recreational users during construction including new paths to enable less interaction with construction activities. The magnitude of change would be less in areas less frequented by recreational users, away from the more notable peaks and paths and tracks, although in some cases the strength of wildness experienced in these areas is greater (for example, in An Lairig). It would also be less in areas

where there is a greater influence of existing contemporary land use, such as around Loch Pattack and Coire Pitridh.

- 4.2.22 During operation, the magnitude of change on this WLQ would reduce. There would continue to be influence of modern artefacts and contemporary land use and some reduction in the perceived naturalness of the modified lochs (see **Figures 7.5.6a and 7.5.6i**, and **Figures V3a-3a-f – 11a-f** of the main LVIA) but the perceptual responses of sense of solitude and arresting / inspiring qualities which contribute strongly to the experience valued by visitors would continue to be present, associated with the wider setting of mountains, scree-slopes and crags. Visitors would therefore continue to experience a sense of wildness, albeit this would be reduced.
- 4.2.23 Although planting across the wider slopes around Lochan na h-Earba is proposed for BNG purposes, and may create a greater sense of enclosure, the arresting qualities of crags and steep slopes would still be experienced, and the proposed native planting would be likely to continue to contribute to a sense of perceived naturalness.
- 4.2.24 In some areas the introduction of new tracks would increase accessibility which could change the experience of challenge and remoteness, but this could also enable increased access for some to new areas and new experiences of wildness.
- 4.2.25 Magnitude of change is therefore predicted as follows:
- During construction:
 - **Medium – High** within the valleys of Lochan na h-Earba and Loch a' Bhealaich Leamhain where there would be a High magnitude of change on the sense of sanctuary and solitude, but arresting qualities and fulfilment from physical challenge would continue to be experienced by recreational users;
 - **Medium** around summit areas surrounding Lochan na h-Earba and their approaches including Coire Pitridh, Creag Pitridh, Binnein Shios and Binnein Shuas where construction works passed in accessing the these areas would affect the sense of challenge and remoteness, and presence of the works around the loch would reduce the sense of solitude.
 - **Low – Medium** around Loch Pattack area which is popular for recreation and where increased construction and contemporary land use in the western context associated with the Leamhain Dam and some reduced sense of solitude, and arresting qualities associated with the western mountains would reduce the overall experience of wildness.
 - **Low** across other popular summits within 10 km, and other less frequently accessed lower lying areas within around 5 km of the Proposed Development where there would be a change to some physical attributes, but arresting qualities would still be strongly present in relation to the surrounding physical landform; and
 - **Negligible** across other lower lying areas beyond 5 km and elevated summits where there would be barely perceptible changes to physical attributes or perceptual responses.
 - During operation:
 - **Medium** within a very localised areas within around 500 m of the proposed powerhouse where there would be a perceived physical presence of people occupying and present within the landscape which may reduce sense of solitude;
 - **Low** within all areas where the dams and reservoirs would form noticeable modern artefacts within the landscape and increase contemporary land use. This would include parts of the Lochan na h-Earba valley further from the powerhouse, the Loch

a' Bhealaich Leamhain area, and popular areas on the downstream side of the Leamhain Dam around Loch Pattack and the summit of Càrn Dearg, because although the Proposed Development would be prominent, public access would continue to be similar to existing, there would be little evidence of human activity and perceptual responses would continue to be present.

- **Negligible** in all other areas where the Proposed Development would form a perceptual but less prominent feature in the landscape, and the perceptual attributes would continue to be strongly present, associated with the wider mountainous landscape.

4.2.26 WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness.

4.2.27 Magnitude of change to this WLQ would occur in relation to the lochs which would be modified by the Proposed Development: Lochan na h-Earba and Loch a' Bhealaich Leamhain (see **Figures 7.5.6a and 7.5.6b** and **Figures V3a-6a-f – V3a-8a-f** from the main LVIA). There would also be some very localised changes affecting watercourses in Coire Pitridh where these would be diverted by aqueduct to the lower reservoir. The construction of dams in the Lochan na h-Earba and Loch a' Bhealaich Leamhain areas would noticeably affect the perceived naturalness of these lochs, which would become more formalised and obviously managed, particularly during the construction phase, when the other activities ongoing around the lochs including construction of the powerhouse, borrow pits and construction compounds, would further emphasise this.

4.2.28 During operation, there would be less obvious sense of human intervention associated with these areas but the lochs would continue to appear managed and less natural due to the dams and appearance of variable drawdown scars. However, they would continue to contribute to the arresting qualities of the landscape setting, particularly if the water levels were high, in the same manner as other hydroelectric lochs within WLAs.

4.2.29 There would also be some change associated with Loch Pattack, particularly seen in the westerly context (see **Figure 7.5.6g** and **Figures V4a-10a-g** from the main LVIA). Although no direct changes would occur to Loch Pattack, it would be seen with the Leamhain Dam to its rear, which may create a perceived relationship between Loch a' Bhealaich Leamhain and Loch Pattack and reduce the perceived naturalness.

4.2.30 Magnitude of change is therefore predicted as follows:

- During construction:
 - **High** around Loch a' Bhealaich Leamhain where temporary lowering of water level and a very noticeable degree of construction activity and disturbance around all sides of the loch would very noticeably change the perceived naturalness and accessibility;
 - **Medium – High** around Lochan na h-Earba which already has a degree of management, but where major construction works along the majority of the southern shoreline and a new track along the northern shoreline would noticeably change the perceived naturalness and improve accessibility;
 - **Low** in areas around Loch Pattack and where it forms part of the western context, where the appearance of construction works at the Leamhain Dam may create the impression of a more managed relationship between the lochs; and
 - **Low** across the higher slopes and summits surrounding Lochan na h-Earba and Loch a' Bhealaich Leamhain (including the summits of Creag Pitridh, Binnein Shuas and

Binnein Shios, and Carn Dearg) where the construction activities on the lochs would be very noticeable, but would be seen as part of a wider context where other waterbodies and lochs would be unaffected.

- During operation:
 - **Medium** around Loch a' Bhealaich Leamhain and Lochan na h-Earba where the dams, drawdown and associated features including the powerhouse and access tracks would give an impression of a more managed and less natural waterbody, but where the lochs would continue to form a focus of the valleys, particularly when full and around parts of Lochan na h-Earba away from the permanent features.
 - **Low** in areas around Loch Pattack and where it forms part of the western context, where the appearance of the Leamhain Dam may create the impression of a more managed relationship between the lochs; and
 - **Low** across the higher slopes and summits surrounding Lochan na h-Earba and Loch a' Bhealaich Leamhain (including the summits of Creag Pitridh, Binnein Shuas and Binnein Shios, and Carn Dearg) where more managed lochs would be noticeable but would be seen as part of a wider context where other waterbodies and lochs would be unaffected.

4.3 Mitigation Measures

4.3.1 Potential mitigation measures which may be considered to help minimise significant effects on wild land areas are described in Box 1 of the NatureScot Guidance³. These include the following recommendations:

- Rationalise the spatial extent or scale of proposal or parts of the proposal;
- Sensitive siting of components;
- A high standard of design; and
- A high standard of restoration.

4.3.2 The potential for effects on WLA 14 has been considered throughout the design process for the Proposed Development. The full design process is described in **Chapter 3: Consideration of Alternatives and Design Evolution**, and **Appendix 2.2: Design Statement** and can be summarised in relation to WLA 14 as follows:

- The design of the Proposed Development has sought to minimise the extent of permanent features and disturbance to the landscape as far as possible. Methods such as, locating borrow pits and compounds within areas to be inundated as far as possible, and considered alignment of tracks to reduce requirements for multiple switchbacks have been taken to try to minimise the area of effect.
- The front face of the Shuas Dam is proposed to be turfed and vegetated with the aim that it would reflect existing vegetation types within the nearby landscape. This would reduce its perceptibility from parts of the WLA to the west.
- The front face of the Leamhain Dam would be too high and steep to turf but would be composed of local excavated rock which should reflect the similar tones and textures of scree areas within the surrounding corrie. As far as is practicable, rock for the visible front face would be mixed to prevent changes in colour through excavated horizons giving a striped appearance.
- Following construction works, a high standard of restoration would be employed to reinstate landform and vegetation across disturbed areas. This would include the careful

stripping, storage and replacement of existing turves and peat / soils to allow natural regeneration to occur, as described in the LVIA, Chapter 7, Section 7.8 and Appendix 2.3.

- Access tracks would be narrowed where possible following construction to the minimum requirements for operational widths. These measures would be particularly focussed on tracks up to and around Loch a' Bhealaich Leamhain where the higher levels of baseline wildness are present. Narrowing would involve the careful replacement of turves and landform to give a slight ridged edge on the downslope side which would reduce visibility of the running surface. With the exception of cuts within bedrock, cut slopes and embankments alongside tracks would be created at a gradient to support revegetation as far as possible and to prevent erosion.
- Proposed planting around Lochan na h-Earba would be composed of native species and planted to reflect natural woodland patterns in the landscape, including small groupings, focussed around areas of better quality ground, and between areas of crag.
- Peatland restoration is proposed as habitat mitigation for the Proposed Development with part of this likely to occur within the WLA in the study area. Whilst this is primarily proposed as mitigation for habitat loss, this would also provide some offset to effects on the WLA through improvement in the condition of peatland habitats which contribute to the perceived naturalness of the WLA. Further detail of peatland restoration proposals is included in **Appendix 8.6: Outline Biodiversity Enhancement and Management Plan**.

4.4 Significance of Effects

Effects on Strength of Wildness

- 4.4.1 During construction, the most notable changes to the strength of wildness would occur within the Loch a' Bhealaich Leamhain and Lochan na h-Earba areas at the upper and lower reservoirs respectively where the Proposed Dams and the powerhouse would be located, as these are the areas where the greatest focus of the works would occur. There would be a notable increase in human activities in these areas which would also reduce the sense of solitude, whilst the introduction of new tracks and vehicle movements would also reduce perceptions of remoteness, inaccessibility and challenge associated with the landscape.
- 4.4.2 A slightly greater strength of baseline wildness is noted in the Loch a' Bhealaich Leamhain area than Lochan na h-Earba, which is more affected by existing access and management and the effect on strength of wildness in this area is therefore predicted to be slightly greater.
- 4.4.3 During operation, the greater effects of people and activity in these areas would be removed. The reinstatement of disturbed areas, narrowing of tracks, and measures such as semi-burying intake structures, turving the front face of the Shuas Dam and planting around the powerhouse in the Lochan na h-Earba glen would help to reduce and localise the effects of permanent features. The dams and managed reservoirs would lead to these areas being more defined by contemporary land use, but without the activities and presence of people associated with construction, the sense of solitude would return to a higher level and arresting qualities would continue to be present, associated with the surrounding physical landform. The effect on strength of wildness would therefore be less notable. Around the powerhouse, there would be a greater influence of people but this would be very localised, particularly with growth of proposed planting over time.
- 4.4.4 Native woodland planting across a wider area around Lochan na h-Earba is proposed for BNG purposes. This planting and associated fencing may lead to a more formalised sense of contemporary land use in the shorter term, but over time, with use of appropriate native species

and considerate patterns of planting supported by natural regeneration, would be more likely to be perceived as natural and would therefore not be out of context within the WLA.

- 4.4.5 Construction activities would also be noticeable in Coire Pitridh area, where the access road between the two reservoir areas would be constructed and works at the surge shafts and tunnel adit area would also be influential. There would also be some visible influence of works at the Shuas Dam. During operation however, changes in this area would be much less noticeable, as the permanent features would have only a very localised influence and the downstream side of the Shuas Dam would be turfed, although there would be some increase in accessibility from the new track. However, this area has a lower baseline sense of wildness, due to its visible connection to Glen Spean, outwith the WLA. This reduces its wild land sensitivity and effects on strength of wildness would therefore be less notable.
- 4.4.6 There would also be some influence on areas to the downstream of the Leamhain Dam, around Loch Pattack and An Lairig and open slopes to the east of River Pattack. In these areas, construction would form a more focussed area of activity within the setting of mountains to the west, north or north-east and the effect would be more indirect. The greatest degree of effect here would occur within areas to the south and west of the dam site within around 2 - 3 km, where construction activities would be most prominent and there is less influence of existing land use around Loch Pattack. This effect would decrease when moving westwards along An Lairig away from the works where the influence of the enclosing landform becomes greater and the existing strength of wildness is high, as the dam site would start to be hidden from view. However, there would be an awareness of being closer to human activities in the landscape in comparison to the existing situation.
- 4.4.7 Although the Proposed Development would be prominent within the westerly context from other areas to the east, the strength of wildness is lower in these areas which feel more connected and have more influence of existing human land use around River Pattack and Loch Pattack. Nevertheless, the appearance of construction in the context to the west, would create a slightly greater sense of being surrounded by development and affect the connection to the mountain setting.
- 4.4.8 The operational effect on these areas would be similar to that during construction as the appearance of the front rockfill face of the dam in the setting of the mountains would increase the perceptions of contemporary land use in a similar way to construction activities, although this would weather to become less prominent over time. However, the level of effect would be slightly less because the presence of people and human intervention would be inferred by the appearance of the dam within the setting rather than directly perceived, and this would have less effect on the sense of solitude. There is some potential for the appearance of the Leamhain Dam above Loch Pattack to introduce a perceived managed relationship, due to the natural connection of Loch a' Bhealaich Leamhain and Loch Pattack by watercourses and this could slightly influence the perception of naturalness associated with Loch Pattack. However, this would be a limited effect, because there is already a sense of management to the loch as a result of existing tracks.
- 4.4.9 There would be wider intervisibility with the Proposed Development from high, elevated mountain summit areas within the study area. Most of these summit areas are already influenced by surrounding contemporary land use though evoke a high degree of the perceptual responses due to their challenging, rugged landform and elevation which provides separation and solitude from other people, sense of risk, and arresting qualities associated with expansive vistas of surrounding peaks.

- 4.4.10 The Proposed Development would add to the contemporary land use within parts of the surrounding valleys. This would be most noticeable from peaks to the south and west of the Leamhain Dam (including Càrn Dearg and Geal-charn (Loch Ericht)) where the dam would form a prominent feature. This would be seen within the context of contemporary land use at Loch Pattack which partially reduces sensitivity, but due to the scale of construction works and the operational dam, would form a noticeable increase and would draw the sense of human intervention further into the mountainous area. This effect would decrease when moving further westwards, as the dam would form a smaller feature, more concealed and less influential in relation to a much wider context of surrounding mountains.
- 4.4.11 There would be a less noticeable effect on parts of the Ardverikie mountains which are more influenced by the contemporary land use of Glen Spean. From these summits, the Proposed Development would mostly be seen more as part of the existing modified context where the connection to the seemingly more wild landscape is away from the development, to the south and south-west. However, the new track to the surge shafts would partially improve accessibility to Creag Pitridh and there may be an impression during construction, of the edge of the WLA being drawn slightly closer.
- 4.4.12 In all cases, the mountain summit areas would retain the perceptual qualities of wild land, because the wider connection to the surrounding mountains which arouses arresting qualities (particularly to the southwest), the rugged, challenging landform and the sense of elevated separation from other people would be largely unaffected.

Significance of effects on Strength of Wildness - Construction

- 4.4.13 In summary, during construction the effect on strength of wildness is predicted to be **Major Adverse** (significant) within the localised area around Loch a' Bhealaich Leamhain due to a generally High and Medium magnitude of change, on an existing area of Medium – High wildness. A **Moderate – Major Adverse** (significant) effect on strength of wildness is predicted throughout the Lochan na h-Earba valley where similar levels of magnitude of change would occur, but strength of baseline wildness is slightly less, being Medium. The effect is also predicted to be **Moderate – Major Adverse** (significant) on the downstream side of the Leamhain Dam area. This would reduce beyond around 1 km where the direct impacts of construction would be less disruptive but would remain significant up to around 2 – 3 km to the east, south and south-west through an Lairig and up to the summit of Càrn Dearg where the effect would be **Moderate Adverse** (significant).
- 4.4.14 Effects on the remaining parts of the study area where there would be intervisibility with the Proposed Development are not predicted to be significant during construction. A **Moderate – Minor Adverse** (not significant) effect is predicted for the area around Loch Pattack, and around Coire Pitridh including the north-facing slopes of Beinn a' Chlachair. Although these areas would have noticeable impact from the construction works, the strength of wildness is generally already Medium – Low, due to the influence of surrounding contemporary land use.
- 4.4.15 The effect would be **Minor Adverse** (not significant) across all other elevated summits where the construction would be seen in the context of other contemporary land use within valleys and outwith the WLA and would also be **Minor Adverse** (not significant) across the open slopes to the east of the River Pattack where only a small part of the context would be affected and the strength of wildness is Medium.

Significance of Effects on Strength of Wildness – Operation

- 4.4.16 During operation, the reduced level of human activities at the reservoir and dam sites would lead to less notable effects on contemporary land use and sense of solitude, and mitigation measures would help to localise some of the effects of permanent structures. However, the presence of the dams and management of the lochs is still predicted to lead to a localised **Moderate Adverse** (significant) effect on strength of wildness in the Loch a' Bhealaich Leamhain area due to the Medium – High strength of baseline wildness, and within an area of around 2.5 km to the south, east and west of the Leamhain Dam, up to the summit of Carn Dearg where the baseline wildness is relatively high and the dam would be very prominent. A locally **Moderate Adverse** (significant) effect is also predicted for the south-western end of Lochan na h-Earba, within around 1 km of the powerhouse and upstream of the Leamhain Dam, where there would be a greater awareness of people within the landscape. However, the wider effect on this area would be **Moderate – Minor Adverse** (not significant) because the sense of solitude and arresting qualities would be similar to existing levels, and with new planting which would soften the appearance of drawdown round the loch, the management of the loch is not predicted to change the baseline strength of wildness to a significant degree.
- 4.4.17 The effect is predicted to be **Minor Adverse** (not significant) for areas around Loch Pattack and east of River Pattack, stretching up to the summit of Geal-charn on the eastern side of Loch Ericht where there would be some impact on the relationship with mountains in the setting and a greater sense of being surrounded by contemporary land use, but the strength of wildness is Medium or Medium – Low. It would also be **Minor Adverse** within parts of Coire Pitridh due to increased accessibility in this area but would be **Negligible** across the north-facing slopes of Beinn a' Chlachair, where the turfed front face of the Shuas Dam would have limited impact and the strength of wildness is already relatively low.
- 4.4.18 A **Minor Adverse** (not significant) effect is also predicted for the summit areas of the Ardverikie Munros and mountain summits further in the westerly context of the Leamhain Dam, where the Proposed Development would be seen as a feature within the context of the lower valley areas, but the perceptual attributes of wild land would remain present at similar to existing levels. For other elevated areas further to the west with theoretical visibility of the Shuas Dam, the effect would be Negligible, because there would be limited perceptibility of the turfed front face of this dam within the context.

Effects on WLQs

- 4.4.19 The effects on strength of wildness would lead to the following effects on WLQs:
- WLQ 1: Mountain ranges and glens of varying landform, but all arresting, with towering, steep and rugged slopes and striking physical features.**
- 4.4.20 This WLQ is present throughout most parts of the study area, but less notably present around Loch Pattack and River Pattack where the influence of the mountains is indirect, as part of the setting to the west. Higher sensitivity is mostly focussed within the more enclosed valleys where the immediate landform provides the greatest contribution to the arresting qualities which are experienced. The magnitude of change would typically be slightly less than that for overall strength of wildness, because of the focus of this WLQ on arresting qualities which are mostly evoked in relation to the physical landform and would therefore continue to be present in all areas to some degree.
- 4.4.21 During construction:

- A **Moderate – Major Adverse** (significant) effect would occur within the Loch a' Bhealaich Leamhain area where there is Medium – High sensitivity for the WLQ and on the downstream side of the Leamhain Dam, through An Lairig for around 1 – 2 km where sensitivity ranges between Medium – High and High. In these areas, the levels of activity taking place would lead to a Medium magnitude of change which would decrease when moving further westwards away from the dam, whilst sensitivity increases. Despite construction activities, the WLQ would continue to be experienced in these areas to some extent, because of the emotional response to the elevated and rugged landform which is a strong contributory element to the WLQ.
- A **Moderate Adverse** (significant) effect is predicted within the Lochan na h-Earba area where the sensitivity is High and there would be a Medium magnitude of change. Despite the high levels of construction activity in this area, and changes to the perceived naturalness of the loch, the strong contribution of the enclosing crags and slopes would lead to the WLQ remaining present, although modified in its experience.
- A **Moderate Adverse** (significant) effect is also predicted for the Loch Pattack area because, although not directly present, the mountain setting contributes to the arresting qualities experienced in this area and the Proposed Development would form a focus within this setting which would reduce its influence. Both sensitivity and magnitude for this WLQ are therefore considered to be Medium.
- A **Minor – Moderate Adverse** effect is predicted for Coire Pitridh where the tunnel adit and surge shaft works and main access to the Leamhain Dam would feature but are not likely to overcome the presence of the arresting qualities, perceived naturalness and ruggedness which contribute to the WLQ.
- **Minor or Minor – Moderate Adverse** (not significant) effects are predicted across all mountain summit areas where construction works would form a feature, and may affect some of the contributory attributes to the WLQ, but the sense of naturalness, ruggedness and arresting qualities would lead to the WLQ remaining strongly present in relation to the surrounding extensive mountainous landscape.

4.4.22 During operation:

- The effect on the Loch a' Bhealaich Leamhain area and An Lairig would reduce to **Moderate Adverse** (significant). Without the activities and features associated with construction, magnitude of change would reduce to Low – Medium, reducing further when travelling further along An Lairig. Although permanent features of the Proposed Development would affect the presence of physical attributes, and would distract within the mountain landscape, the WLQ would continue to be present in association with the surrounding physical landform.
- The effect on the Lochan na h-Earba area would reduce to **Minor Adverse** (not significant) because without the activities of construction, the arresting qualities of the surrounding crags would continue to be one of the most influential characteristics of this area and would lead to the WLQ remaining strongly present. Planting around the loch shore and powerhouse in this area would help to mitigate the effects of perceived naturalness of the drawdown and proposed planting for BNG purposes within the wider landscape is not predicted to be out of place within the WLA. Magnitude of change for the WLQ would be Low.
- Around Loch Pattack, the effect would reduce slightly to **Minor – Moderate Adverse** (not significant). The Leamhain Dam would continue to affect the mountain context, but with less associated activity, would form less of a distracting feature in the setting and the

indirect influence of the mountains on the wildness of this area would be less noticeably reduced.

- The effect on the Coire Pitridh area would be **Minor Adverse** (not significant) because the influence of permanent features on the setting of the mountains would be more localised and the WLQ would remain present to a similar extent.
- The effect across other mountain summit areas to the south of the Leamhain Dam would be **Minor Adverse** (not significant) because although the permanent features of the Proposed Development may have limited effects on physical attributes, the sense of naturalness, ruggedness and arresting qualities associated with the WLQ would remain present to a similar extent.

WLQ 3: An extensive and remote mountain and peatland interior with a strong sense of sanctuary, appearing even larger due to distant views to surrounding wild land areas.

4.4.23 This WLQ is mostly not present across the study area, being associated with parts of the WLA further to the south-west. There would be some limited effects where the relationship with this more remote landscape may be affected by the Proposed Development, which is mostly experienced from the higher summits, but also in the An Lairig area. No significant effects are predicted to this WLQ during construction or operation as the setting to the south-west would generally not be affected. Effects are predicted as follows:

4.4.24 During construction:

- A **Minor – Moderate Adverse** (not significant) effect is predicted in An Lairig where there is a sense of moving through into the more remote interior and the presence of construction in the north-eastern context may lead to a sense of being closer to the edge of the WLA.
- A **Minor Adverse** (not significant) effect is predicted across the summit areas of the Ardverikie mountains Creag Pitridh and Geal Charn, and Geal-chn to the south of Loch Ericht where the works would appear within the west or south-westerly context, and may slightly affect the connection to the more remote interior.

4.4.25 During operation:

- The effect would reduce to **Minor Adverse** (not significant) through an Lairig without the activities associated with construction works, and would continue to be **Minor** (not significant) across the summit areas of Creag Pitridh, Geal Charn (Ardverikie) and Geal-chn (Loch Ericht).

WLQ 4: A large area which is visited by many people to experience wild land qualities in different ways, whilst maintaining a sense of remoteness, sanctuary, challenge and risk.

4.4.26 The effects on this WLQ would be dependent on a weighting between how the changes brought about by the Proposed Development may affect the strength of wildness experienced by visitors, and the potential for improved accessibility to improve the opportunities for visitors to experience the WLA. In general, the areas with the greatest baseline popularity for visitors are considered to have a higher sensitivity for this WLQ. This does not necessarily correlate to the areas with the greatest strength of wildness. Magnitude of change would be greatest where the sense of wildness obtained by visitors in these areas would be changed but less notable where the perceptual responses would continue to be clearly experienced. The significance of effects for the WLQ would therefore be similar to the overall strength of wildness, but would be somewhat reduced in areas less frequented by visitors.

4.4.27 During construction:

- A **Moderate – Major Adverse** (significant) effect would occur within the Loch a' Bhealaich Leamhain area and Lochan na h-Earba area where there is Medium – High sensitivity for the WLQ and a Medium – High magnitude of change is predicted. The experience of wildness would be significantly affected in these areas, but alternative access routes would be provided which would allow visitors to continue to experience the arresting qualities of the surrounding landform.
- The effect would graduate to **Moderate Adverse** (significant) on the higher summit areas around Lochan na h-Earba and in Coire Pitridh. Even though some of these areas have a lower strength of baseline wildness, the disruption of the construction works to the sense of solitude, including on the approaches to these summits, is predicted to lead to a less valued experience of wildness for visitors.
- A **Minor – Moderate Adverse** (not significant) effect is predicted for the Loch Pattack area and the summit area of Càrn Dearg where the construction works at the Leamhain Dam would form a focussed area within the western or southerly context but the change to the sense of solitude and arresting qualities would be Low – Medium or Low.
- A **Minor Adverse** (not significant) effect across remaining tops, where the Proposed Development would appear within the context but the perceptual attributes of sense of solitude and arresting / inspiring qualities would remain strongly present.
- A **Minor Adverse** (not significant) effect through An Lairig, where the works at the Leamhain Dam would be more noticeable, but the area is less noticeably frequented by recreational users.

4.4.28 During operation:

- The effect would not be greater than **Minor Adverse** (not significant) in all areas where the Proposed Development would appear as a permanent feature in the landscape. This would affect physical attributes of modern artefacts, contemporary land use and perceived naturalness, and would lead to improvements in access, but the perceptual attributes would still be present and visitors would therefore still gain an experience of wild land.

WLQ 5: An extensive pattern of lochs, lochans, burns and bog that highlight the ruggedness of the landform, limit access and contribute to the sense of naturalness.

- 4.4.29 Sensitivity is higher for this WLQ in areas where waterbodies and watercourses appear natural and are most closely associated with character of the landscape and wild land qualities experienced. This is highest in the valleys enclosing Lochan na h-Earba and Loch a' Bhealaich Leamhain, with some sensitivity also in the Loch Pattack area. The magnitude of change would be highest in the areas where waterbodies or watercourses would be directly modified by the dams, and intakes which would reduce perceived naturalness and create a greater emphasis of contemporary land use and consequently the greatest areas of effect would be around Loch a' Bhealaich Leamhain and Lochan na h-Earba. There would be very localised effects within Creag Pitridh and on the downstream side of the Shuas Dam where small intakes would be positioned. Some indirect change is also predicted for Loch Pattack due to the existing relationship with Loch a' Bhealaich Leamhain and a perceived modification to this relationship. Effects would be less notable during operation with the cessation of construction activities and restoration of areas disturbed. The dams and fluctuations of drawdown would reduce the perceived naturalness of the main lochs, but these would remain as large expanses of water, contributing

to the character of the landscape and would appear similar to existing hydroelectric reservoirs situated within WLAs.

4.4.30 During construction:

- A **Major Adverse** (significant) effect is predicted to the area of Loch a' Bhealaich Leamhain, where sensitivity is High and the extensive construction works around the loch including temporary lowering of the loch level would lead to a High magnitude of change;
- A **Moderate – Major Adverse** (significant) effect is predicted for the Lochan na h-Earba area, which has slightly lower, Medium - High sensitivity given existing small modifications to the loch, and construction works focussed along the southern side of the Loch would lead to a Medium – High magnitude of change.
- A **Minor Adverse** (not significant) effect is predicted for Loch Pattack, where the perceived naturalness is less, and where construction works at the Leamhain Dam would lead to some modifications to the catchment and may lead to a perceived reduction in the naturalness of the loch.
- A **Minor Adverse** (not significant) effect is predicted to the Coire Pitridh area, where construction of intakes would lead to a localised reduction in perceived naturalness of watercourses.

4.4.31 During operation:

- A **Moderate Adverse** (significant) effect is predicted in the localised areas of Loch a' Bhealaich Leamhain and Lochan na h-Earba where the modified lochs would contribute to the overall sense of wildness, but would appear more defined by contemporary land use and consequently less natural.
- A **Minor Adverse** (not significant) is predicted for the Loch Pattack area where there is already some perceived modification around the loch due to the presence of existing tracks, but this may be perceptibly reduced due to an apparent association with the Leamhain Dam upstream.

Summary of Significant Effects

4.4.32 Overall, the assessment has identified that significant effects would be confined to a relatively localised area, mostly within 1 km of the key built elements of the Proposed Development, and reservoirs. The exception would be a slightly larger area on the downstream side of the Leamhain Dam, where the effects would be significant, up to around 3 km during construction, and 2.5 km during operation. Some localised significant effects may also extend across an area accommodating Loch Pattack up to 3.5 km from the Proposed Development during construction but would be confined to one WLQ.

4.4.33 The most notable significant effects would occur during construction, within the Lochan na h-Earba and Loch a' Bhealaich Leamhain valleys, and an area on the downstream side of the Leamhain Dam, where the levels of activity and large scale works would very noticeably reduce the physical attributes or perceptual responses of lack of artefacts, contemporary land use, and sense of solitude. This is predicted to lead to a significant effect within these areas on the WLQs **WLQ 1** (*Mountain ranges and glens of varying landform...*), **WLQ 4** (*A large area which is visited by many people...*), and **WLQ 5** (*An extensive pattern of lochs, lochans, burns and bog...*) within these localised areas. Lesser effects which are still predicted to be significant, would occur to **WLQ 1** over parts of An Lairig, to the south-west of the Leamhain Dam and around Loch Pattack, where the mountain setting would be affected.

- 4.4.34 The localised significant effect for **WLQ 4** would also cover an area on the downstream side of the Shuas Dam and within Coire Pitridh where the experience for recreational users would be disrupted by working areas and access tracks. However, because of the lower presence of the attributes and responses of wild land in this area this is not predicted to result in a significant effect to the overall strength of wildness in this area or any of the other WLQs.
- 4.4.35 There would be no significant effect to **WLQ 3** (*An extensive and remote mountain and peatland interior...*) during either construction or operation.
- 4.4.36 During operation, the extent and severity of significant effects would reduce. With the completion of construction works, reinstatement of disturbed areas and implementation of mitigation, the effect of the Proposed Development on wild land would be less pronounced. The presence of the dams, reservoirs with associated drawdown, and powerhouse would still lead to a reduced presence of physical attributes, but without the activities associated with construction, the changes to perceptual attributes would be less noticeable. Significant effects are predicted within the area of Loch a' Bhealaich Leamhain, extending to the area downstream of the Leamhain Dam within around 2.5 km. With the implementation of mitigation, and the already reduced sense of wildness occurring closer to the Shios Dam, on the edge of the WLA the significant effect at Lochan na h-Earba would be localised to an area at the south-western end of the valley within around 1 km of the powerhouse on the upstream of the Shuas Dam. The effects on all other areas significantly affected during construction are predicted to reduce to levels that would be not significant. Given that the perceptual responses of arresting / inspiring qualities and sense of solitude which contribute most notably to the WLQs would continue to be experienced, the operational effects of the Proposed Development are predicted to lead to only localised significant effects for WLQs comprising:
- A *localised* significant effect to **WLQ 1**, around Loch a' Bhealaich Leamhain and on the downstream side of the Leamhain Dam within 1 - 2 km from the Proposed Development;
 - A *localised* significant effect to **WLQ 5** within the Loch a' Bhealaich Leamhain and Lochan na h-Earba areas.
- 4.4.37 No significant effects during operation are predicted for WLQ 4, because continued presence of perceptual responses and newly constructed paths would continue to enable visitors to experience wild land.

Effects on the WLA as a Whole

- 4.4.38 The longer term significant effects associated with the operation of Proposed Development would be very localised in relation to the WLA as a whole as they would be largely contained within the valleys and around the lochs directly affected. As such, the effect on the WLA as a whole would be very small as the vast majority of the area would receive little or no effect. Whilst lesser effects which would not be significant have been identified over a wider area of summits, it is not considered that this would contribute to a greater effect on the WLA because these areas are almost all already affected by contemporary land use within the context and the addition of the Proposed Development to this during the operational phase would comprise only limited, partial views of features which would not detract from the wider experience of surrounding mountain summits.
- 4.4.39 Of those areas which would be significantly affected, the Lochan na h-Earba area has an already low to moderate degree of baseline wildness as indicated by Map of Relative Wildness (mostly Jenks Classes 4 and 5) (see **Figure 7.5.2** and **Figure 7.5.4**). This suggests that the area makes a less notable contribution to the identification of the WLA as a whole. A higher strength of wildness is shown by the mapping within the Loch a' Bhealaich Leamhain (Jenks Classes 7 and

8) area, but this is a small and isolated area and during site survey was considered too small on its own to show the highest level of wildness (represented by Jenks Class 8). There would be limited effects on areas where the largest extent of highest strength of wildness is shown, comprising within the study area, the summit areas of Aonach Beag and Ben Alder. When the ZTV is viewed with the individual attribute maps (see **Figure 7.5.3**), it can be seen that Absence of Modern Artefacts is already recorded as being less strong across most of these summit areas and therefore the addition of the Proposed Development would not lead to a very notable level of change.

- 4.4.40 Overall, it is therefore considered that, should the mapping exercises be repeated with the Proposed Development included, there would be some localised changes to strength of wildness but the study area would still form a viable part of the WLA. The effect on the WLA as a whole would therefore be not significant.