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ASSESSING THE IMPACTS ON WILD LAND INTERIM GUIDANCE NOTE

This document sets out general principles for assessing the potential adverse and beneficial impacts on areas where wildness is best expressed (wild land), including an assessment methodology. This is an evolving area of work and this is therefore interim guidance to be reviewed in April 2010.

1. INTRODUCTION

A clear and robust method for the assessment of impacts on wild land is required due to increasing pressure on this diminishing resource. Renewable energy and other infrastructure developments, tourism and recreation facilities, forestry, agriculture and sporting land uses can potentially all have negative impacts on Scotland's wilder landscapes. Other threats to the sense of wildness include military aircraft, traffic noise, and light pollution. By its nature, wild land is sensitive to all forms of development and therefore this guidance aims to provide a clear methodology for applicants and others to use in their assessment of impacts on this important resource.

Landscape and visual impacts are currently assessed using the established methodology detailed in the *Guidelines for Landscape and Visual Impacts Assessment (GLVIA)*¹. The GLVIA provides a framework for assessing impacts upon landscape and visual amenity and is generally used in conjunction with Landscape Character Assessment Guidance for Scotland and England (2002). Whilst landscape assessment may record wildness as a characteristic of some landscapes, there is no method for assessing impacts upon this particular aspect of character which, for certain landscapes, may be the defining characteristic. But this does not recognise the more subjective nature, individual values and range of perceptions held for defining wildness or identifying wild land. Therefore, an assessment additional to, but sitting alongside, the GLVIA method is required. Such an assessment should be carried out by a competent professional with appropriate experience.

1.1 Policy relating to wild land

NPPG 14 states that *“Some of Scotland’s remoter mountain and coastal areas possess an elemental quality from which many people derive psychological and spiritual benefits. Such areas are very sensitive to any form of development or intrusive human activity and planning authorities should take great care to safeguard their wild character. This care should extend to the assessment of proposals for development outwith these areas which might adversely affect their wild character.”*

NPPG 14 requires planning authorities to include policies in their Structure and Local Plans for protecting and enhancing landscapes of wild character. For example, The Highland Council Renewable Energy Strategy assigns three policies to the protection of wild land from both direct and indirect effects of renewable developments (see Box 1).

Box 1: Highland Council Renewable Energy Strategy policies (2006)

“Development of new renewables projects should safeguard the wildest areas of Highland from further direct development pressures, including any access tracks to adjacent areas.

The indirect effects of renewable development, especially windfarms, located outwith areas with qualities of wildness, but visible from them, will be taken into account especially if viewing distances are relatively close.

The preferred pattern of development is to encourage the clustering of renewable energy developments, so as to avoid the undue spread of technology into semi-wild areas of Highland.”

The SNH policy statement [*Wildness in Scotland’s Countryside Policy Statement*](#) (2002) provides support to the policy approach taken in NPPG14. It differentiates between the two concepts of ‘wildness’ and ‘wild land’; wildness being the quality experienced by people (through such values as feeling close to nature and experiencing a sense of solitude), and wild land being those extensive areas where wildness (the quality) is best expressed. Wild land areas have not been precisely defined, but SNH has identified in the policy statement search areas where the main wild land resource is most likely to be found - those now limited areas of mountain, moorland and remote coast, which mostly lie beyond contemporary human artefacts such as roads or other development. The term ‘wild land’ as it is used here therefore applies to areas that represent the very best of Scotland’s wild landscapes.

¹ The Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact assessment, Second Edition, 2002

In setting out a method of assessment, SNH recognises that assessment requirements will vary from site to site and depend on the nature and size of the development. Applicants and others should tailor their assessment method accordingly. In all cases the applicant should make early contact with SNH for advice on the approach for an individual site. Note that a full assessment of a site as identified below may not be a requirement for every development.

2. THE ASSESSMENT METHOD

The assessment of impact on wild land comprises two stages: first, establishing a baseline of the condition and extent of the wild land resource; and secondly, assessing the magnitude and significance of the impact upon it.

2.1 Establishing a baseline

The purpose of establishing the baseline for assessment is:

1. to establish and describe the extent to which physical and perceptual attributes of wild land are present; and
2. to identify and describe the character, sensitivity and condition of the area affected and its contribution to the wild land area as a whole.

The SNH identified search areas do not delimit wild land, and confirming the presence and extent of the wild land area is therefore required which may be within or outwith the present search areas. SNH requires a set of defined physical attributes to be present and well expressed across an area of sufficient size to evoke certain perceptual responses, and where the impact of detracting features is limited, for an area to be considered wild land (see Box 2).

Box 2: The physical attributes and perceptual responses evoked by wild land (SNH Wildness in Scotland's countryside policy statement, 2003)	
Physical attributes	Perceptual responses
a high degree of perceived naturalness in the setting, especially in its vegetation cover and wildlife, and in the processes affecting the land	a sense of sanctuary or solitude
the lack of any modern artefacts or structures	risk, or for some visitors, a sense of awe or anxiety, depending on the individual's emotional response to the setting
little evidence of contemporary human uses of the land	perceptions that the landscape has arresting or inspiring qualities
landform which is rugged, or otherwise physically challenging	fulfilment from the physical challenge required to penetrate into these places
remoteness and/or inaccessibility	

To establish the baseline conditions existing information garnered from the suite of Landscape Character Assessments (LCAs) should be used along with a field assessment including representative viewpoints and knowledge of the area. This information will be both quantitative (eg distance from roads/tracks, presence or absence of detractors such as

forest plantation/buildings), and qualitative (eg - key views, areas where there is an acute sense of seclusion), which together build a picture of the area and its key qualities.

2.1.1 Defining the study area

In order to understand the condition of wild land across the whole wild land area to be studied, familiarity of the area must be gained. This may be achieved firstly by visiting the periphery, understanding the context and setting of the area in the wider landscape. The next step is to experience the area itself aiming to penetrate into the interior. From these initial site assessment discussions, photographs and notes should be recorded in order to assist in the baseline assessment of the strength of wildness. These steps should be done with at least two professionals who have an understanding for the sensitivity of wild land.

We strongly recommend that SNH is consulted at scoping or pre-scoping stage and asked to comment on the study area boundary and how it has been defined. At this stage SNH can also provide further comment on a draft wild land assessment methodology.

2.1.2 Assessing the physical attributes

In order to make judgements about the nature of the wild land resource, the study area should be assessed using the physical attribute criteria set out in Box 2. The table below provides criteria to determine the condition of wildness expressed for each of the physical attributes using a simple scale of negligible, low, medium and high (a broader scale including low/medium and medium/high could be adopted in particularly complex or large study areas). The application of these criteria will always be based on the subjective judgement of the professional carrying out the assessment and it would help to include peer review in the process.

Table 1: Strength of attribute

	High	Medium	Low	Negligible
Perceived Naturalness	Area perceived as generally natural	Majority of area perceived as generally natural	Some of area perceived as generally natural	Area is not perceived as generally natural
Lack of constructions or other artefacts	No or minimal perceptible evidence of artefacts	Some artefacts visible but are not prominent	Some artefacts visible and are prominent	Several Artefacts clearly visible and are prominent
Little evidence of contemporary land uses	Contemporary land use not apparent	Some contemporary land use apparent though not significantly detracting	Some contemporary land use apparent and locally detracting	Contemporary land use apparent and detracting
Rugged or otherwise challenging terrain	Rough, tough terrain Steep ground requiring an appreciable level of fitness to traverse and sturdy footwear. Navigation across this terrain requires high degree of skill.	Appreciable skill in navigation required, including in poor visibility, requiring a degree of accuracy. Rough terrain with some steep ground and requiring a degree of fitness and sturdy footwear.	Some rough areas, but generally terrain easy to cross. Only slightly strenuous. Navigation reasonably straightforward with landforms or tracks providing relatively easier to cross terrain.	Easily traversed terrain requiring no navigation skill.
Remoteness and inaccessibility	No roads, tracks or paths. No key routes available for crossing area.	Some route availability through landform, but no roads, tracks or paths in area.	Few tracks or paths available to traverse area but wider area still relatively inaccessible.	Close to public roads, with easily accessed network of paths or tracks.

Box 3: Example to illustrate the application of criteria in Table 1

An expansive area of rocky moorland and remote coast can only be accessed by private boat or a long and strenuous walk in requiring navigation skills due to the repetitive undulating terrain and frequent changeable weather conditions. The rocky and exposed

nature of the terrain has meant that the use of the land is now limited to deer grazing although there is evidence of past human occupation in the form of a few scattered derelict crofts and old field boundaries long since abandoned. Due to the undulating landform long views are often obtainable on higher ground giving orientation. However these frequent views, often across water, include several small settlements and their associated infrastructure such as roads and power lines which are illuminated at night. Therefore this area might score a high for Perceived Naturalness and Remoteness and Inaccessibility and medium for Lack of Constructions or Other Artifacts, Evidence of Contemporary Land Uses and Rugged or Otherwise Challenging Terrain. Although the perceptual response 'A sense of sanctuary, solitude or refuge' may have been weakened due to the visual intrusion of the settlements and roads, the visual separation from these detractors and the fact that they are not within the area to be defined as 'wild' mean this attribute is still present.

2.1.3 Assessing the perceptual responses

The presence or absence of perceptual responses should be recorded for each of the areas within the study area. These responses are inherently more difficult to assess because they are less tangible and dependent on the individual's perception, and will usually increase as a person moves into a wild land area. If one of the perceptual responses is not present, that location will not be true 'wild land' and the 'condition of wild land' box should be marked accordingly.

The scale of the wild land area also requires to be assessed. The area must be large enough to accommodate all of the physical criteria to a degree but also of sufficient size to evoke all of the perceptual responses.

2.1.4 Assessing the baseline

Using the criteria in Table 1, landscapes of varying extent can be assessed. The aim of the assessment is to gain a picture of where the physical and perceptual attributes of wildness are most strongly represented, and the degree to which they contribute to the whole wild land area. It is possible that all attributes may score 'Low' and yet the area is still considered to be wild land. What is of importance here is the contribution that the area makes to the wild land area as a whole.

Table 2:

Area	PHYSICAL ATTRIBUTES					PERCEPTUAL RESPONSES			
	Perceived Naturalness	Lack of constructions or other artefacts	Little evidence of contemporary land uses	Rugged or otherwise challenging terrain	Remoteness and inaccessibility	A sense of sanctuary, solitude or refuge	Risk or anxiety - hazard	Arresting/inspiring qualities, sense of awe - prospect	Physically challenging
A	High	High	High	High	High	Y	Y	Y	Y
B	High	Medium	High	Medium	High	Y	Y	Y	Y
C	Medium	Low	Low	Medium	Medium	Y	Y	Y	Y

2.1.5 Summarising the approach

To summarise the overall approach in establishing a baseline the following steps should be taken:

1. Defining the study area
- site assessment using a clearly set out and repeatable method

- | | |
|---------------------------------------|--|
| 2. Assessing the physical responses | the study area should be assessed using the physical attribute criteria to ascertain the condition of wildness using table 1 |
| 3. Assessing the perceptual responses | the study area should be assessed using the perceptual response criteria remembering that all attributes need to be present |
| 4. Assessing the baseline | draw conclusions on the condition of wild land |

3. ASSESSING THE IMPACT ON WILD LAND

3.1 Principles in assessing change to attributes

When assessing the impact of any changes to the attributes of wild land, the following principles should be applied.

- A Development should ideally be sited so as to avoid adverse impacts upon wild land. Where detractors cannot be avoided their impact upon the condition of wild land should be minimised. Detractors include anything that:
 - adds an artificial element to the vegetation pattern (ie reduces perceived naturalness);
 - results in new visible structures;
 - makes contemporary land use more obvious;
 - makes access to the area easier; or
 - reduces the remoteness of the area.

- B A detractor does not have to be within an area of wild land to affect it. For example, a prominent development outside the wild land may well be visible from many places within the wild land and so detract from the quality of wildness and remoteness.

- C Gradual attrition at the edge of wild land should be avoided if possible. Wild land can be damaged, if not lost, through the cumulative effect of detractors around the edges reducing the central area.

- D Much of Scotland’s wild land is not pristine and does contain detractors. NPPG 14’s definition of wild land acknowledges that the *“influence of human activity on the character and quality of the environment has been minimal”*, not absent.

- E Different parts of the wild land resource will inevitably vary in the strength to which they portray both the physical and perceptual attributes and perhaps score low, but the low scoring areas contribute to the whole (especially areas at the edge). So a baseline score of low being damaged further may still be a significant problem.

- F Temporary detractors may be acceptable if it can be shown that all visible signs can be removed at the end of the construction phase.

3.2 Assessing the magnitude of impacts

This section is mostly about assessing and describing the degree of change.

To illustrate how impacts can now be assessed against the baseline (see Table 2), two examples have been used. One where a development lies within a wild land area, and another that lies on the periphery of a wild land area. A description of any changes to the strength in which the attributes are present to explain the magnitude of change rating should be included. The ratings in bold highlight where there is a change to the baseline due to the introduction of the development. The final rating given in the last box 'Significance' should reflect the degree to which the established baseline has been changed by the introduction of the development. The level of detail required will depend on the scale and form of development along with it's proximity, and intervisibility with surrounding areas of wild land. The applicant should discuss these with SNH at an early stage.

Table 3: Magnitude of change criteria

Rating	Description
High	Total loss or alteration to attribute.
Medium	Partial loss or alteration to attribute.
Low	Minor loss or alteration to attribute resulting in a change to the baseline.
Negligible	Very minor or no loss to the baseline attribute. The introduction of the development does not change the baseline assessment.

To illustrate the application of the criteria in Table 3 a fictional example is given. The introduction of a hydro scheme will result in the disturbance of vegetation along the pipeline route for a number of years until restoration has been completed. In the baseline assessment, the area was assessed as High for Perceived Naturalness therefore the magnitude of change for this area might be low due to the temporary nature of the disturbance. If the pipeline had not been buried therefore the vegetation could not be restored the magnitude of change might be medium or, if the area affected was extensive, even high.

Table 4: Example One - a large hydro scheme within a wild land search area

Area	PHYSICAL ATTRIBUTES					PERCEPTUAL RESPONSES				Significance of effect
	Perceived Naturalness	Lack of constructions or other artefacts	Little evidence of contemporary land uses	Rugged or otherwise challenging terrain	Remoteness and inaccessibility	A sense of sanctuary, solitude or refuge	Risk or anxiety - hazard	Arresting/inspiring qualities, sense of awe - prospect	Physically challenging	
A Strength of attribute at baseline	High	High	High	High	High	Y	Y	Y	Y	
Magnitude of Change	Short term disturbance of vegetation along pipeline but should not be visible in the longer term	None visible	Not affected	Not affected	Temporary access required for construction however this will be restored in time	Unchanged	Unchanged	All elements of the scheme can be viewed creating new focus however this is a short term impact	Short term impact due to temporary tracks but long-term unchanged as these will be removed and restored	All attributes are present to a degree. The only change being temporary Not Significant
	Low	Neg	Neg	Neg	Med	Y	Y	Y	Y	
B Strength of attribute at baseline	High	Medium	High	Medium	High	Y	Y	Y	Y	
Magnitude of Change	Short and medium term disturbance of vegetation along pipeline and intake	Power house and pipeline will be visible	Not affected	Not affected	Although the track does not extend to this area vegetation would be cleared and accessibility increased	Unchanged	Unchanged	Presence of powerhouse detracts from views along glen	Access track reduces physical challenge	Two perceptual attributes are no longer present Significant
	Med	Neg	Neg	Neg	Med	Y	Y	N	N	
C Strength of attribute at baseline	Medium	Medium	High	Medium	High	Y	Y	Y	Y	
Magnitude of Change	Short term disturbance of vegetation around intake but should be no longer term evidence of disturbance	Powerhouse and tracks clearly visible	Not affected	Terrain no longer as challenging due to new access track	The new track to the power house has increased access to this area where none presently exist	Unchanged	Unchanged	Powerhouse and permanent wide tracks detract from views	Access track reduces physical challenge	Two perceptual attributes are no longer present Significant
	Neg	Med	Neg	Low	Med	Y	Y	N	N	

Table 6: Example Two - a commercial wind farm on the periphery to a wild land area

Area	PHYSICAL ATTRIBUTES					PERCEPTUAL RESPONSES				Significance of effect
	Perceived Naturalness	Lack of constructions or other artefacts	Little evidence of contemporary land uses	Rugged or otherwise challenging terrain	Remoteness and inaccessibility	A sense of sanctuary, solitude or refuge	Risk or anxiety - hazard	Arresting/inspiring qualities, sense of awe - prospect	Physically challenging	
A Strength of attribute at baseline	Med	High	High	High	High	Y	Y	Y	Y	
Magnitude of Change	This attribute is not affected	This attribute is not affected	Felling of trees over a large part of the site makes the contemporary land use more apparent from a distance but does not change baseline	This attribute is not affected	Introduction of track to parts of this area open up previously difficult access	Introduction of turbines where no artefacts presently visible. Movement of blades may be visible on clear days	Focus shifts from the natural qualities to the man made, however sense of awe maintained	Focus is shifted from inspiring panoramas to wind farm, losing some inspiring qualities of the landscape. Longer term disturbance of vegetation is evident from distant views	Unchanged	Two perceptual attributes no longer present Significant
	Neg	Neg	Neg	Neg	Low	N	Y	N	Y	
B Strength of attribute at baseline	Med	Med	High	Med	High	Y	Y	Y	Y	
Magnitude of Change	Some short term disturbance of vegetation cover and stream	This attribute is not affected	Felling of trees over a large part of the site more apparent from a distance but does not change baseline	This attribute is not affected	This attribute is not affected	Introduction of turbines where no artefacts presently visible but attribute only slightly affected	Unchanged	Long distance view is foreshortened as attention drawn to the wind farm however, quality remains	Unchanged	No change to baseline Not Significant
	Neg	Neg	Neg	Neg	Neg	Y	Y	Y	Y	
C Strength of attribute at baseline	High	Med	High	High	High	Y	Y	Y	Y	
Magnitude of Change	Immediate surrounding area not changed	Although there is further introduction of human artefacts these are a substantial distance and not prominent in views	The turbines will be visible on clear days, but not prominent, back clothed, etc	This attribute is not affected	This attribute is not affected	Unchanged	Unchanged	Wind farm too distant and takes up too little of the view to affect this attribute significantly	Unchanged	No change to baseline Not Significant
	Neg	Neg	Neg	Neg	Neg	Y	Y	Y	Y	

Significance of effect is determined by considering the ratings given to all attributes in each location. The overall judgement cannot be a formulaic one, but the basis of the judgements made should be clear and concise. As stated in SNH's Wildness policy, if any one of the perceptual responses are no longer present then an area can not be defined as wild and therefore the impacts must be significant. It is important that the physical attributes are assessed before the perceptual responses as along with a sound knowledge of the area this will assist in the more subjective judgements to be made.

3.2.1 Results from Example One

In the first example, all physical attributes are present to some degree however some of the perceptual attributes would no longer be present. The presence and extent of detracting features in some of the areas, area B and C, results in significant adverse impact therefore the area can no longer be considered wild. It is therefore concluded that this proposal will have a significant adverse impact on the wild land resource being assessed.

3.2.2 Results from Example Two

The second example is different as the development is outwith the wild land area. A different baseline has been used from the one in Example One to illustrate the complexity of differing assessments. This example illustrates the importance of protecting not only the edges of wild land but also understanding that developments outwith wild land areas can adversely impact the perceptual responses. This wind farm has removed one of the perceptual responses therefore the development as it stands will adversely impact upon the wild land resource but to a lesser degree than the development illustrated in Example One.

4. SIGNIFICANCE OF IMPACTS

The degree to which the categories of physical attributes may change along with any losses in perceptual attributes will require professional informed judgement in concluding if these impacts constitute a significant adverse effect on the extent and condition of the resource. GLVIA highlights that *"Changes affecting large numbers of people are generally more significant than those affecting a relatively small group of users. However, in wilderness landscapes the sensitivity of the people who use these areas may be very high and this will be reflected in the significance of the change."*

It can be seen that Example One, the hydro scheme, would significantly adversely affect the wild land resource in which it lies as the magnitude of change for two of the three areas assessed results in the loss of perceptual attributes and some degree of change to a number of physical attributes.

The impacts arising from Example Two, the wind farm scheme, are less straight forward to conclude as only one of the areas (Area A) result in a significant adverse impact. The impacts of the wind farm in this scenario are likely to adversely affect part of the wild land area, not necessarily its periphery, to the point where this part can no longer be described as 'wild'.

5. MITIGATING MEASURES

Before a judgement can be made about the significance of residual impacts of both of these developments, mitigating measures should be considered. Step 3 'Assessing the Impacts on Wild Land' helps to pick out which attributes specifically are being affected by a development and to what extent. Mitigating measures can now be used to try to reduce these impacts, for example, for the hydro scheme, the powerhouse and high visibility of the tracks appear to be of most concern. It might be possible to relocate or redesign the powerhouse and consider re-routing or reducing the size of the tracks to a degree where their impacts are considered to be acceptable. An assessment of the significance of residual impacts (ie, with mitigation) should be made.

6. CUMULATIVE IMPACTS

When assessing cumulative impacts on wild land, a similar process can be adopted. It may be necessary for applicants to run a series of tests for each of the given scenarios, for example, impacts occurring from wind farms a and b, wind farms b and c, wind farms a, b and c etc. The results of each test should then be compared and judgements as to the acceptability of impacts on the wild land resource made.

This interim advice will be reviewed in April 2010. Comments on its contents and use should be sent before then to Catherine Harry, Policy and Advice Officer – Landscape, Inverness, catherine.harry@snh.gov.uk

ANNEX A: PRO FORMA FIELD SHEET

Area	PHYSICAL ATTRIBUTES					PERCEPTUAL RESPONSES				Significance of effect
	Perceived Naturalness	Lack of constructions or other artefacts	Little evidence of contemporary land uses	Rugged or otherwise challenging terrain	Remoteness and inaccessibility	A sense of sanctuary, solitude or refuge	Risk or anxiety - hazard	Arresting/inspiring qualities, sense of awe - prospect	Physically challenging	
A Strength of attribute at baseline										
Magnitude of Change										
B Strength of attribute at baseline										
Magnitude of Change										
C Strength of attribute at baseline										
Magnitude of Change										

ANNEX B: PROCESS FOR ASSESSING IMPACTS OF A DEVELOPMENT ON A WILD LAND RESOURCE

Step One

Establish a baseline and define the study area.

Step Two

Assess the physical attributes.

Step Three

Assess the perceptual responses.

Step Four

Assess the baseline.

Step Five

Assess the impact on wild land.

Step Six

Assess the significance of impacts.

Step Seven

Apply mitigating measures.

Step Eight

Assess residual impacts.

Step Nine

Assess cumulative impacts.