

4.0 METHODOLOGY

4.1 Introduction to Landscape Character Assessment

4.1.1 The European Landscape Convention describes ‘landscape’ as *an area, as perceived by people, whose character is the result of the action and interaction of natural and human factors*. This holistic approach encompasses physical landscape factors (geology, geomorphology, ecology etc.); cultural factors (archaeology, historic features, settlements etc) and perceptual qualities of the landscape such as tranquillity. Landscape Character Assessment therefore brings together information on many different aspects of the environment into a single document.

4.1.2 Landscape character can be defined as the **distinct, recognisable and consistent pattern of elements** in the landscape that makes one landscape different from another (rather than better or worse). Landscape Character Assessment is **a tool for identifying and describing variation in landscape character**. It highlights the unique combinations of elements and features that make each landscape distinctive, and provides information to assist in managing change.

4.1.3 The Regional Landscape Character Assessment for Wales is currently nearing completion, and the map below (fig. 4) shows the resulting Landscape Character Areas in the vicinity of the Brecon Beacons National Park.

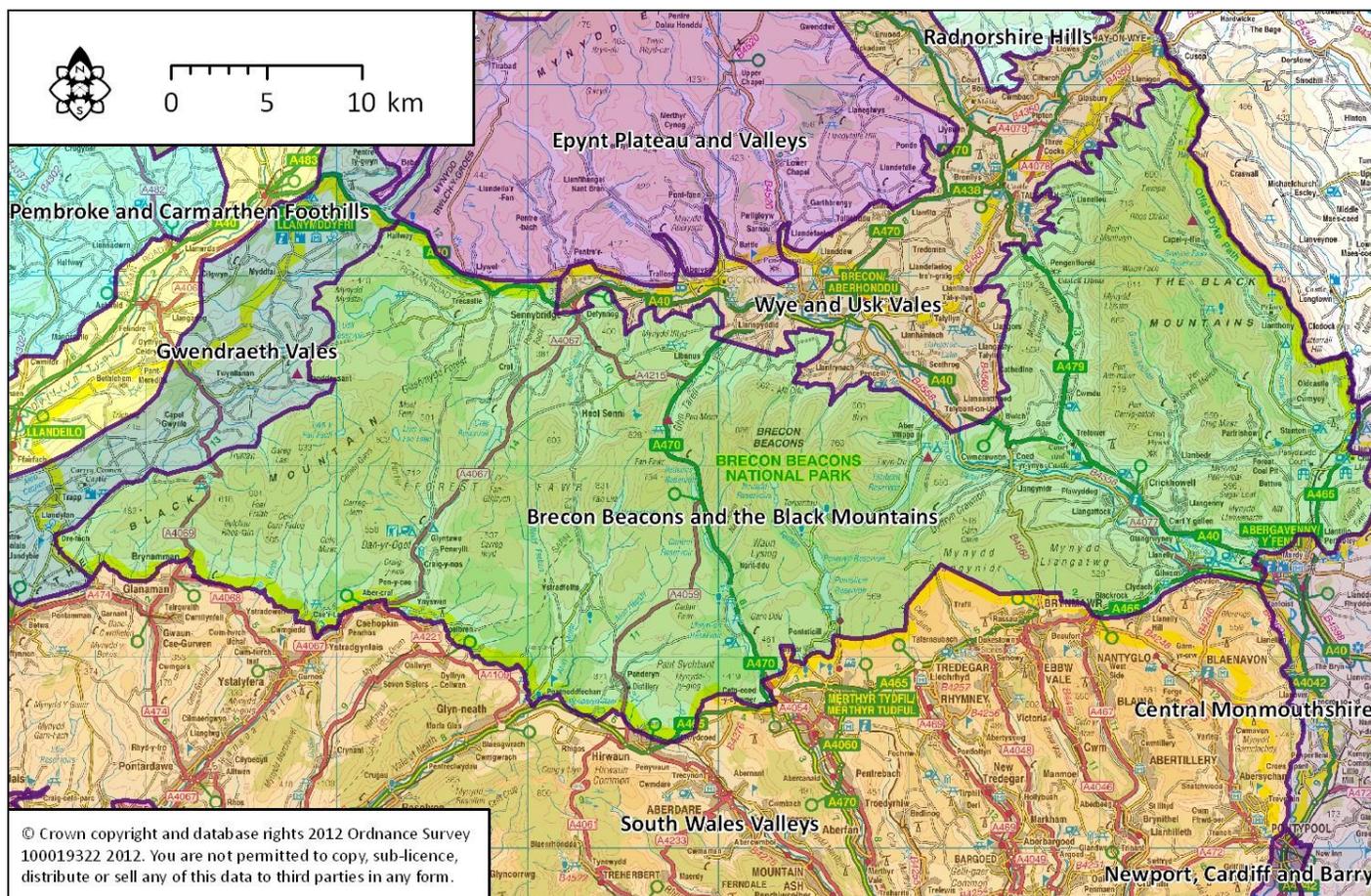


Fig. 4: Welsh Regional Landscape Character Areas (CCW)

4.2 Definitions of terminology

4.2.1 Landscape character assessment requires the identification of Landscape Character Types (LCTs) and Landscape Character Areas (LCAs). **Landscape Character Types** are defined as ***distinct types of landscape that are relatively homogenous in character.*** They are generic in nature in that they may occur...in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use and settlement patterns. ¹Examples of LCTs within the Brecon Beacons are 'Uplands' and 'Upland Valleys'.

4.2.2 **Landscape Character Areas** are defined as ***single unique areas which are the discrete geographical areas of a particular landscape type. Each has its own individual character and identity, even though it shares the same generic characteristics with other areas of the same LCT.***² Landscape Character Areas are named with reference to specific places. For example, within the 'Uplands' LCT there are four LCAs, namely Mynydd Du, Fforest Fawr, Central Beacons and Mynyddoedd Llangatwg & Llangynidr.

4.2.3 Perceptual qualities of landscape

For clarity, key terms used within this Landscape Character Assessment when referring to perceptual qualities of landscape are explained here. A full glossary of technical terms and acronyms used in the LCA descriptions is provided in Appendix 1. This Landscape Character Assessment uses the perceptual qualities criteria as described in Countryside Council for Wales (CCW) (2011) *Methodology for Identifying and Designating Areas of Outstanding Natural Beauty in Wales* as these are the most up-to-date and Welsh-focussed. However, these criteria can be usefully elaborated by reference to other documents, as described below.

4.2.4 Tranquillity

CCW criteria: ***Presence and/ or perceptions of natural landscape, birdsong, peace and quiet, natural-looking woodland, stars at night, streams and/or sea, natural sounds and similar influences.***

These criteria draw heavily on work undertaken by the Universities of Newcastle and Northumberland for the CPRE.³ This comprehensive study into tranquillity revealed that tranquillity is very difficult to define precisely as it is ultimately a state of mind rather than a specific environmental characteristic. However, extensive research and public consultation showed that a number of factors were found to be particularly influential in enhancing/ detracting from tranquillity. These factors are set out in the table below, and were recorded for each of the Brecon Beacons LCAs during the fieldwork stage. It was also noted where LCAs were within the Brecon Beacons National Park core dark skies area.

¹ Countryside Agency and Scottish Natural Heritage (2002) *Landscape Character Assessment Guidance for England and Scotland* p. 9

² As above

³ Jackson et. Al. (2008) *Tranquillity Mapping: Developing a Robust Methodology for Planning Support Brecon Beacons National Park Landscape Character Assessment* Fiona Fyfe Associates, August 2012

Factors which positively influence tranquillity	Factors which detract from tranquillity
Openness of the landscape, Perceived naturalness of the landscape, Rivers, Areas of low noise, Visibility of the sea.	Presence of other people, Visibility of roads, Visibility of human development, Road, train and urban area noise, Night time light pollution, Aircraft noise, Military training noise.

4.2.5 Remoteness

In previous Brecon Beacons National Park Authority policy documents, remote areas were defined as ***‘areas more than 2km from a tarmac road’***. In 2011, the *Remote Areas Working Group* reviewed the potential policy and practical management implications of this definition. This method is easily quantifiable, and is a practical approach as it acknowledges the inherent difficulties of accessing these areas for management purposes/ emergency access etc. However, this definition only takes account of the ‘inaccessibility’ aspect of remoteness, when in reality there are other factors affecting perception of remoteness. There are some parts of the National Park where topography hides views of roads, even though they are relatively close. These areas are *perceived* as being remote, even though in reality they may be within 2km of a road. Therefore, this project uses the more comprehensive criteria for defining remoteness as used by CCW:

CCW criteria: ***Relatively few roads or other transport routes; distant from or perceived as distant from human habitation.***

Using the CCW criteria provides consistency with other Welsh projects (e.g. LANDMAP) and with the definitions of other perceptual qualities. The fieldwork record sheets (Appendix 5) recorded the CCW criteria (including a note of where landform created a sense of remoteness/ disorientation) and also recorded which LCAs contain areas more than 2km from a tarmac road.

Factors contributing to a sense of remoteness
Absence of roads/ transport routes Apparent absence of human habitation Landscape form and sense of disorientation



View south-east from trig. point on Mynydd Llangynidr. This viewpoint is less than 1.2km from a tarmac road, and only 3km from the urban edge of Ebbw Vale. Nevertheless its apparent absence of roads and settlement, and its landscape form creates a sense of remoteness.

4.2.6 Relative Wildness

CCW criteria: **Low degree of human influence e.g. due to extensive semi-natural vegetation; few built features; openness and exposure to the elements.**

These criteria were recorded for each LCA during fieldwork, along with additional relevant criteria⁴:

Factors contributing to a sense of relative wildness
A sense of remoteness
A relative lack of human influence
A sense of openness and exposure
A sense of enclosure and isolation
A sense of the passing of time and a return to nature

4.3 LANDMAP

4.3.1 LANDMAP is the formally-adopted approach for landscape assessments in Wales, and is advocated by the Welsh Assembly Government. It is an all-Wales Geographic Information System (GIS)-based landscape information resource where characteristics, qualities and influences on the landscape are recorded as five themed spatial layers. Geographically discrete areas are identified and mapped by their landscape qualities and characteristics. Accompanying survey records document those qualities and characteristics in addition to management recommendations and criteria-based evaluations. The five spatial layers are as follows: 1. Geological Landscape; 2. Landscape Habitats; 3. Historic Landscape; 4. Visual and Sensory; 5. Cultural Landscape

4.3.2 LANDMAP data has been used throughout the process of preparing the Brecon Beacons Landscape Character Assessment, and LANDMAP area boundaries have been used as a basis for the Landscape Character Area boundaries. Where possible, LCA boundaries have followed boundaries from the Visual and Sensory LANDMAP layer. However, where there was no appropriate Visual and Sensory layer boundary, boundaries from other LANDMAP layers were used instead. Only in a very small number of cases was there no suitable boundary in any of the LANDMAP layers.

LANDMAP data has contributed to the information base of the Landscape Character Assessment. The following diagram (fig. 5) illustrates how the various LANDMAP layers fit with the components of landscape researched as part of the landscape characterisation process.

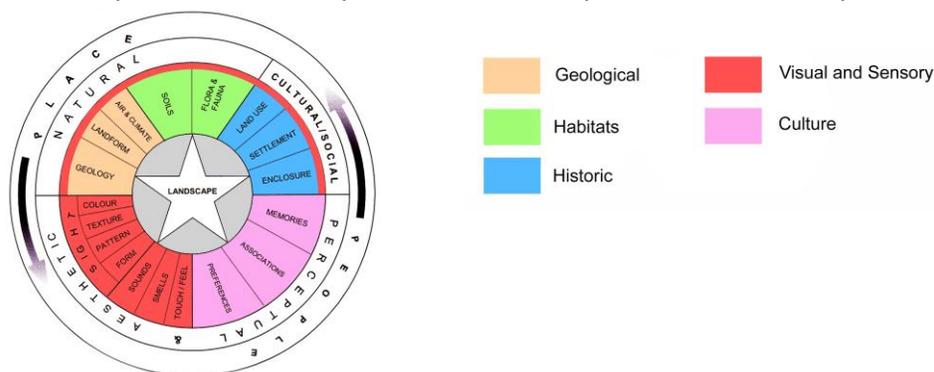


Fig.5: How LANDMAP layers fit into different components of landscape researched during the characterisation process. (Reproduced with permission of CCW).

⁴ Natural England (2011) *Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England. Appendix 1: Evaluation framework for Natural Beauty Criterion.*
 Brecon Beacons National Park Landscape Character Assessment Fiona Fyfe Associates, August 2012

4.4 Stages of Work

The following diagram (fig. 6) shows the process of undertaking the Brecon Beacons National Park Landscape Character Assessment, which is in accordance with the current Guidelines on Landscape Character Assessment⁵. A full methodology with technical details is provided in Appendix 2.

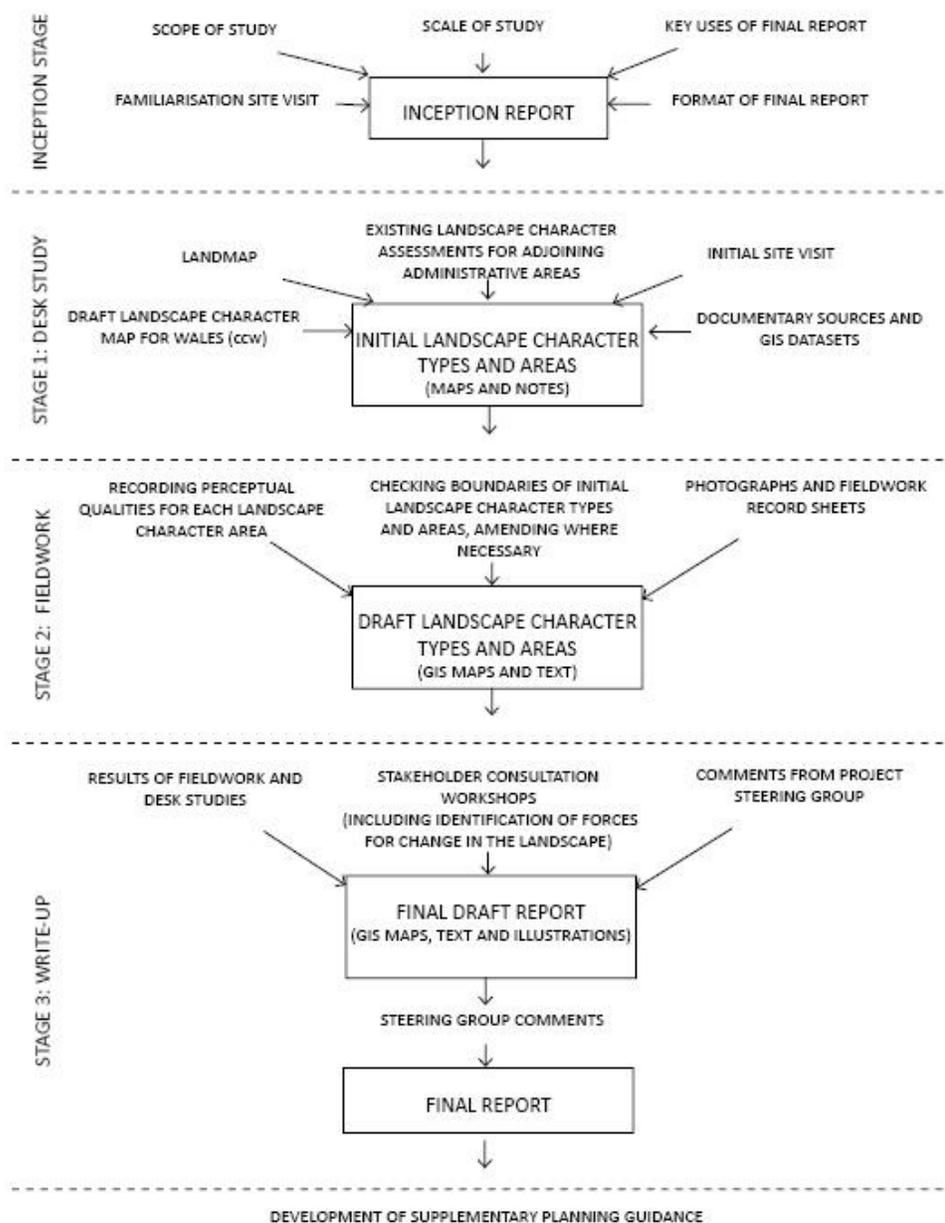


Fig. 6: Flowchart showing the Brecon Beacons Landscape Character Assessment methodology

⁵ Countryside Agency and Scottish Natural Heritage (2002) *Landscape Character Assessment Guidance for England and Scotland* Brecon Beacons National Park Landscape Character Assessment Fiona Fyfe Associates, August 2012

4.5 The importance of scale

- 4.5.1 In deciding on the appropriate scale and level of detail to be contained within a landscape character assessment, it is essential to consider the size of the study area and the end uses of the landscape character assessment. For example, 'The Brecon Beacons' are a single area in the Regional Landscape Character Assessment for Wales shown in fig. 4 above. Whilst useful at a strategic level, this scale does not pick up in any detail the variety of landscapes within the National Park. At the other end of the spectrum, a village undertaking a Parish Plan or similar exercise would need a very detailed study of their immediate surroundings, looking at buildings or fields on an individual basis.
- 4.5.2 The scale used for the Brecon Beacons Landscape Character Assessment is an appropriate balance between the strategic and the detailed. It enables the variation within the landscapes of the National Park to be appreciated and described, without becoming too 'bogged down' in detail, or losing the identity of the National Park as a whole. It provides the necessary level of detail required by the National Park Authority to fulfil the end uses set out in section 2.2.1.

4.6 Green Infrastructure

- 4.6.1 The LCA profiles in section 7.0 refer to the Green Infrastructure provided by each LCA. This section explains the terminology used in the LCA profiles.
- 4.6.2 Green Infrastructure is fast becoming recognised as an applied approach to land use management and conservation. Green Infrastructure can be defined as a *network of multi-functional greenspace, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities*. It is a cornerstone of spatial planning that is essential to provide wide-ranging benefits to various sectors through the use of "green" and semi-natural features. Careful planning of Green Infrastructure delivers social, economic and environmental benefits that can be derived in a cost effective and sustainable manner. Natural England's Green Infrastructure Framework (2009) identifies seven key functions of green infrastructure, many of which are applicable to the Brecon Beacons National Park:
1. Conservation and enhancement of biodiversity, including the need to mitigate the potential impacts of new development;
 2. Creating a sense of place and opportunities for greater appreciation of valuable landscapes and cultural heritage;
 3. Increasing recreational opportunities, including access to and enjoyment of the countryside and supporting healthy living;
 4. Improved water resource and flood management and sustainable design;
 5. Making a positive contribution to combating climate change through adaptation and mitigation of impacts;
 6. Sustainable transport, education and crime reduction; and
 7. Production of food, fibre and fuel.

4.7 Ecosystem Services

4.7.1 The LCA profiles in section 7.0 refer to the Ecosystem Services provided by each LCA. This section explains the terminology used in the LCA profiles.

4.7.2 Ecosystem services are the benefits and goods provided by different ecosystems which contribute to human wellbeing. The term ‘services’ is used to encompass the tangible and intangible benefits that humans obtain from ecosystems, which are sometimes separated into ‘goods’ and ‘services’. According to the UK National Ecosystem Assessment (NEA) there are four broad categories of ecosystem services. These are outlined in the table below.

<p>Provisioning Services: The products obtained from ecosystems.</p>	<ul style="list-style-type: none"> • food • fibre • fresh water • genetic resources
<p>Regulating Services: The benefits obtained from the regulation of ecosystem processes.</p>	<ul style="list-style-type: none"> • climate regulation • hazard regulation • noise regulation • pollination • disease and pest regulation • regulation of water, air and soil quality
<p>Cultural Services: The non-material benefits people obtain from ecosystems</p>	<ul style="list-style-type: none"> • spiritual or religious enrichment • cultural heritage • recreation and tourism • aesthetic experience
<p>Supporting Services: Ecosystem services that are necessary for the production of all other ecosystem services.</p>	<ul style="list-style-type: none"> • soil formation • nutrient cycling • water cycling • primary production

Ecosystem Service Types (from UK National Ecosystem Assessment, 2011)

Since ecosystem services are defined in terms of their benefits to people it should be recognised that ecosystem services are context-dependent, that is, the same feature of an ecosystem can be considered an ecosystem service by one group of people but not valued by another group.