



The Screens, Wasdale



SECTION 4

—

State of Conservation and factors
affecting the Property

SECTION 4.a

—

Present State of Conservation

4.a PRESENT STATE OF CONSERVATION

4.a.1 INTRODUCTION

The harmonious beauty of the English Lake District is the product of the interaction of agro-pastoralism and local industry with a spectacular natural setting. That setting was modified by Picturesque and Romantic interest in the area, and by the conservation movements and their consequential measures. The landscape bears the imprint of successive periods of human settlement from the earlier prehistoric period onwards and of the particular land use dating back at least 1,000 years. The clear evidence of this gradual evolution of the cultural landscape adds interest and richness to the nominated Property.

The English Lake District is distinct from other UK cultural landscapes in terms of its unique combination of remoteness, marginal economy, land use pattern, and its scenic attractiveness. The nominated Property covers an area of 2,292 square kilometres, it has a resident population of 40,800 attracts approximately 15.5 million visitors each year, and the majority of the site is owned by private individuals. The property is diverse, containing many attributes that help to demonstrate its Outstanding Universal Value.

Since the English Lake District was designated as a National Park in 1951, the approach to its conservation has been proactive. Overall, the physical condition of the nominated Property is generally good, but there are specific vulnerabilities and threats associated with some attributes. For example, stone walls in some valleys are in a poor state of repair, and a number of listed buildings and Scheduled Monuments are classified as at high risk by Historic England. A series of key indicators has been used to assess the physical condition of the property and previous monitoring, as required by existing regulation relating to National Park status, provides a baseline to monitor its condition in the future (see Section 6.c below and www.lakedistrict.gov.uk/caringfor/state_of_the_park). The discussion below of the state of conservation of the nominated Property has been organised according to the three intertwining themes underpinning the proposed Outstanding Universal Value (see Section 3.1.a).

4.a.2 A LANDSCAPE OF EXCEPTIONAL BEAUTY, SHAPED BY PERSISTENT AND DISTINCTIVE AGRO-PASTORAL TRADITIONS WHICH GIVE IT SPECIAL CHARACTER

HISTORIC BUILDINGS AND SETTLEMENTS, AND ARCHAEOLOGICAL SITES

The English Lake District's medieval buildings, 16th, 17th, and 18th century farm houses, and market towns and settlements form part of the nominated Property's fascinating built environment and cultural heritage. Although not all of these attributes are protected by designation the nominated Property contains 281 Scheduled Monuments, 23 Conservation Areas, nine Registered Parks and Gardens, and 1,771 Listed Buildings. Therefore, heritage at risk indicators assembled by Historic England and the Lake District National Park Authority are a key indicator of the present state of conservation of these attributes.

TABLE 4.1 Designated heritage features classified as 'at high risk'

FEATURE	TOTAL NUMBER OF FEATURES	NUMBER AND PROPORTION OF FEATURES 'AT HIGH RISK'
Conservation Areas	23	0 (0%)
Listed buildings	1,771	87 (5%)
Registered Parks and Gardens	9	0 (0%)
Scheduled Monuments	281	58 (20%)

Historic England's risk categorisation is based on their assessment of condition of sites. Those features judged to be 'at risk' are either in 'very bad' or 'poor' condition and, where relevant, have vacant occupancy or inappropriate use. The proportion of Listed Buildings, Conservation Areas and Registered Parks and Gardens at risk is very low, indicating the generally good condition of attributes of Outstanding Universal Value including the market towns, and the most important medieval buildings and farmhouses.

The number of Scheduled Monuments at high risk is considerable, but the Lake District National Park Authority is actively involved in carrying out conservation measures to reduce the number of Monuments 'at risk'. The Lake District Archaeology Volunteer Network (see below) has cleared bracken and vegetation from monuments and since 2012, 16 sites have been removed from the 'at risk' register. The Lake District National Park Authority also works closely with Historic England and private landowners to find solutions to complex sites, sourcing grant aid and contractors to complete the work. This includes, for example, completing a condition survey of Greenside Lead Mine. Funded by Historic England, this survey provided the detailed understanding to inform proposals designed to prevent deterioration of the site and thus remove it from the 'at risk' Register. The Lake District National Park Authority has also recently submitted a Heritage Lottery Fund application to conserve the 'at risk' features at the Coniston Coppermines.

The Partnership's Management Plan also offers protection to heritage assets both designated and non-designated. Designated sites – the 281 Scheduled Monuments – are only a small proportion of the whole. Undesignated but important sites are recorded

on the Lake District National Park Authority's Historic Environment Record. This database currently contains 15,512 entries, and is used to inform decision-making to enable preservation and conservation of important features. These sites provide evidence of prehistoric and medieval settlement and agriculture, woodland industries, mining and quarrying, and water powered industry. These, like the designated sites, are vulnerable to stock erosion and vegetation growth including bracken.

As with the designated sites, the Lake District National Park Authority Archaeological service has secured grants through agri-environment schemes and the Heritage Lottery Fund to carry out conservation works to archaeological sites at risk. In order to manage these sites in the long-term, the National Park Authority, in partnership with Historic England and the National Trust, has established the Lake District Archaeology Volunteer Network. This network harnesses the work of a large number of volunteers to monitor and survey archaeological sites and carry out conservation work, thus ensuring key attributes are conserved in good condition.

AGRO-PASTORALISM

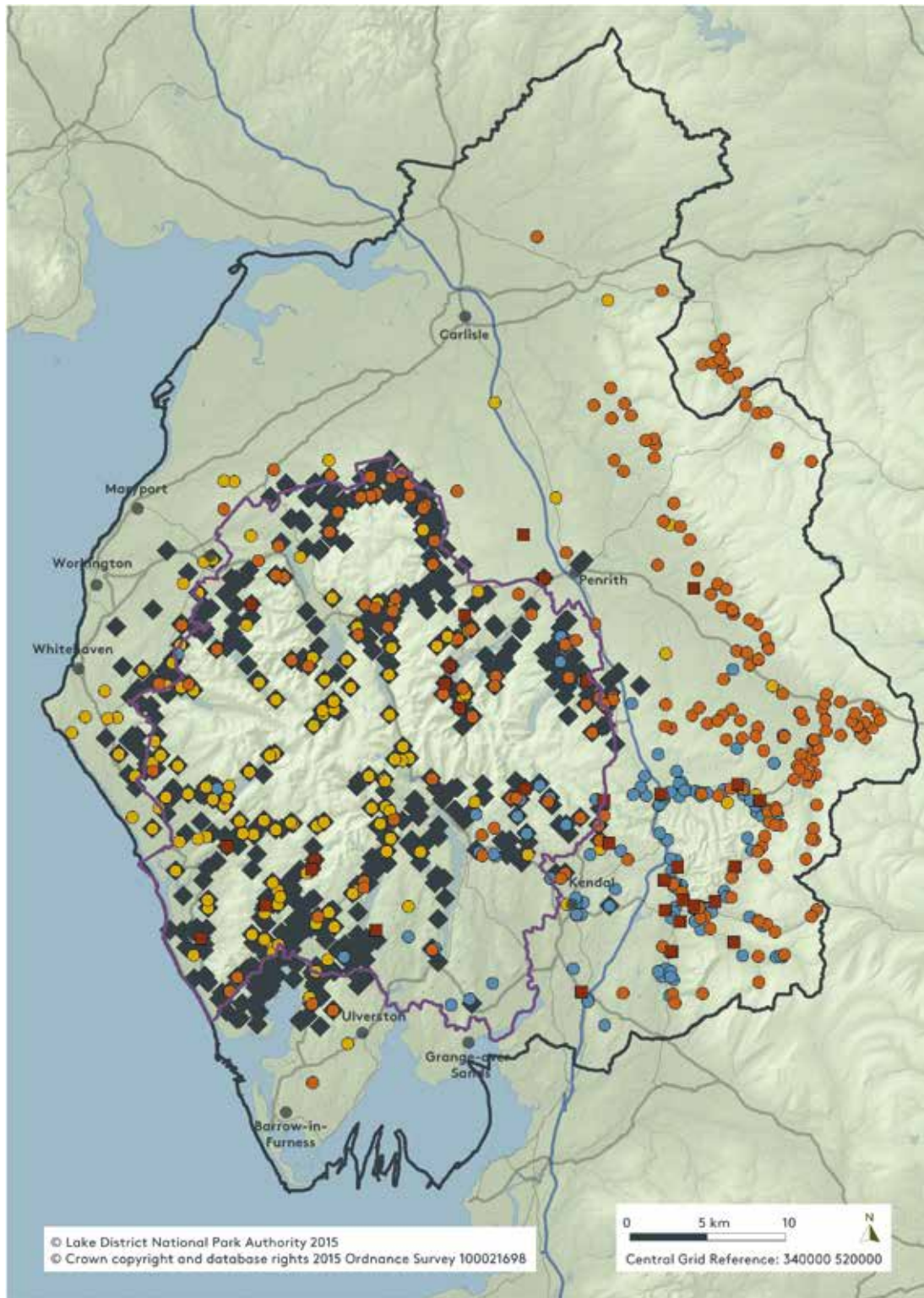
Agro-pastoralism within the nominated Property is a key attribute of Outstanding Universal Value representing a most significant interaction between humanity and nature, and sustaining the English Lake District's distinctive character. It is most vulnerable to economic changes which affect its overall sustainability. The general condition of the system is reasonably good as it is still economically viable with the support of payments from the European Union's Common Agricultural Policy. The sheep flocks (Herdwick, Rough Fell, and Swaledale) are an important attribute but have not been monitored closely in the past. Through work of the Lake District National Park Authority and associations, including the Herdwick Sheep Breeders Association, it has been possible to map the number and location of farms with fell going flocks, as shown in Figure 4.1.

At present there is a reasonable coverage and number of fell going flocks. The Herdwick Sheep Breeders Association also reported that there were 61,359 Herdwick sheep in 2012. This baseline will be useful for monitoring the condition of the property in the future.

As the condition of agro-pastoralism is most vulnerable to economic changes, a series of broader socio-economic indicators also helps to describe the condition of the property. The Government department responsible for agriculture in England, the Department for Environment, Food and Rural Affairs (Defra), provides statistics every three years relating to agro-pastoralism in the nominated Property as a result of its Agriculture and Horticulture Survey.

Key indicators from Defra Farm Statistics in Tables 4.2 – 4.4 provide information on livestock numbers, number of commercial holdings and use of land. Comparable trend data goes back to 2009 and suggests agro-pastoralism is changing. These indicators, together with other data such as net farm income (£9,594 in 2012) and the average age of farmers (55 years in 2014), suggest that the condition of agro-pastoralism is moderate. The average age and net income of farmers may affect the ability of the industry to maintain attributes of Outstanding Universal Value in the future.

FIGURE 4.1 Geographic spread of farms with fell going flocks



Nominated Property boundary
 Cumbria County boundary

◆ Fell-going Flocks

Flocks registered with Breed Associations:

● Herdwick
 ● Rough Fell
 ● Swaledale
 ■ Multiple Breeds

Registered Common Land © Natural England 2015. Attribute data for Fell-going flocks: Lakeland Shepherds' Guide 2005

Attribute data for flocks: Herdwick Sheep Breeders Association 2014, Rough Fell and Swaledale Sheep Breeders' Associations 2013

Sheep numbers in England rose throughout the 1980s as livestock head-based subsidy payments encouraged producers to increase numbers of breeding sheep. National quota limits forced a ceiling on sheep numbers during the 1990s, before changes to subsidy eligibility rules in 2000 and Foot and Mouth Disease in 2001 (see section 4.b.3) resulted in a sharp decline in sheep numbers. Agri-environment agreements are also likely to have resulted in a reduction in the number of moorland and fell sheep up until 2009. But recent data show that breeding sheep numbers across the nominated Property increased from 310,000 in 2009 to 340,000 in 2013. The changes in sheep numbers influence the nature of farming practices and the character of farmland including the open nature of the fells. The changes can lead to issues such as overgrazing, requiring proposals to enclose areas of high fell temporarily to allow biodiversity to recover. The strategies contained in the Management Plan (Volume 4) provide a framework to address these vulnerabilities.

TABLE 4.2 Livestock and agricultural workers in the Lake District

LIVESTOCK AND LABOURERS	2009	2010	2013
Total number of agro-pastoral labourers	2,382	2,387	2,491
Number of dairy cattle	9,747	9,610	9,404
Number of beef cattle	17,088	17,191	15,863
Number of calves under 1 year	21,872	18,399	19,550
Other cattle	19,739	22,850	18,898
Total number of cattle	68,446	68,049	63,714
Breeding ewes	310,033	318,973	340,338
Lambs under 1 year	312,963	306,725	308,321
Other sheep	35,900	35,830	20,620
Total number of sheep	658,896	661,527	669,279
Total number of pigs	5,635	3,220	4,901
Total number of poultry	134,033	343,671	295,720
Total number of horses	978	898	1,066

TABLE 4.3 Number and size of commercial holdings

HOLDING SIZE	2009	2010	2013
Less than 5 hectares	166	70	79
5<20 hectares	212	197	193
20<50 hectares	218	195	200
50<100 hectares	264	248	237
>=100 hectares	346	350	374
Total number of commercial agricultural holdings	1,206	1,060	1,083

TABLE 4.4 Land use types in agro-pastoral land

LAND USE	2009	2010	2013
Crops and fallow (hectares)	2,074	1,375	2,067
Temporary grass (hectares)	4,853	3,912	3,488
Permanent grass (hectares)	71,185	72,789	77,142
Sole right rough grazing (hectares)	44,607	42,323	42,409
Woodland (hectares)	3,694	3,298	3,247
Other land (hectares)	435	515	535

The nominated Property contains the largest area of common grazing in Europe (64,544 hectares or 28 per cent of the property's total area – these figures are additional to those in Table 4.4 and many commercial holdings will also have access to common land). Common land is well protected through legislation including the Commons Act 2006, therefore the area of common land does not change significantly. However, the condition of commons is vulnerable to economic changes of agro-pastoralism. There are 10 commons associations, but further research, as identified in the research framework of the Management Plan, is required to establish how commons are being used and actively managed by farmers. Indicators are also being developed to establish the net change in permanent fencing on high fells and the proportion of redundant fencing on high fells.

The Lake District National Park Partnership established a farming and forestry sub-group of the Partnership to consider issues and threats, and appropriate actions and responses to these. The group commissions a farm business survey annually to establish the state of agriculture in the Lake District, and commissioned and published a report on Farming and Forestry in the Lake District in June 2013 (<http://www.lakedistrict.gov.uk/aboutus/partnership/partnership-subgroups/farming-and-forestry-sub-group>).

The property's Management Plan outlines strategies to support and actions to improve profitability in the agro-pastoral industry, as it recognises that without profitable agro-pastoralism many of the attributes of Outstanding Universal Value would fall into poor or undesirable condition.

LANDSCAPE

The Lake District Landscape Characterisation Assessment is a key piece of evidence used to describe the condition of the property. Prepared in 2008, the Assessment was adopted by the Lake District National Park Authority in 2011 as a Supplementary Planning Document. This means that it forms part of the Development Plan when determining planning applications, and has to be taken into account when taking decisions on them. As such it is available on the Lake District National Park Authority's website (<http://www.lakedistrict.gov.uk/caringfor/policies/lca>) where details of the 13 Landscape Character Types (LCT) and the 71 Areas of Distinctive Character (ADC) Descriptions can be found. These are also summarised in Section 2.A. The study not only provides a framework for developing a shared understanding of the current character and perceptual experience of the landscape and its future management needs, but it also describes the current

condition of each of the Lake District's character types, summarising the general condition as either good, moderate, or poor. Amongst other uses, this helps to guide and inform development decisions and also informs land management decisions and plans, and targets delivery of agri-environment schemes.

The Landscape Characterisation Assessment provides a spatial review of a combination of physical attributes of Outstanding Universal Value, in particular those associated with agro-pastoralism and local industry. A review of the condition of the landscape is due to take place during the next five years to inform the next Management Plan (due 2020), and it is identified as a key action in the current Management Plan.

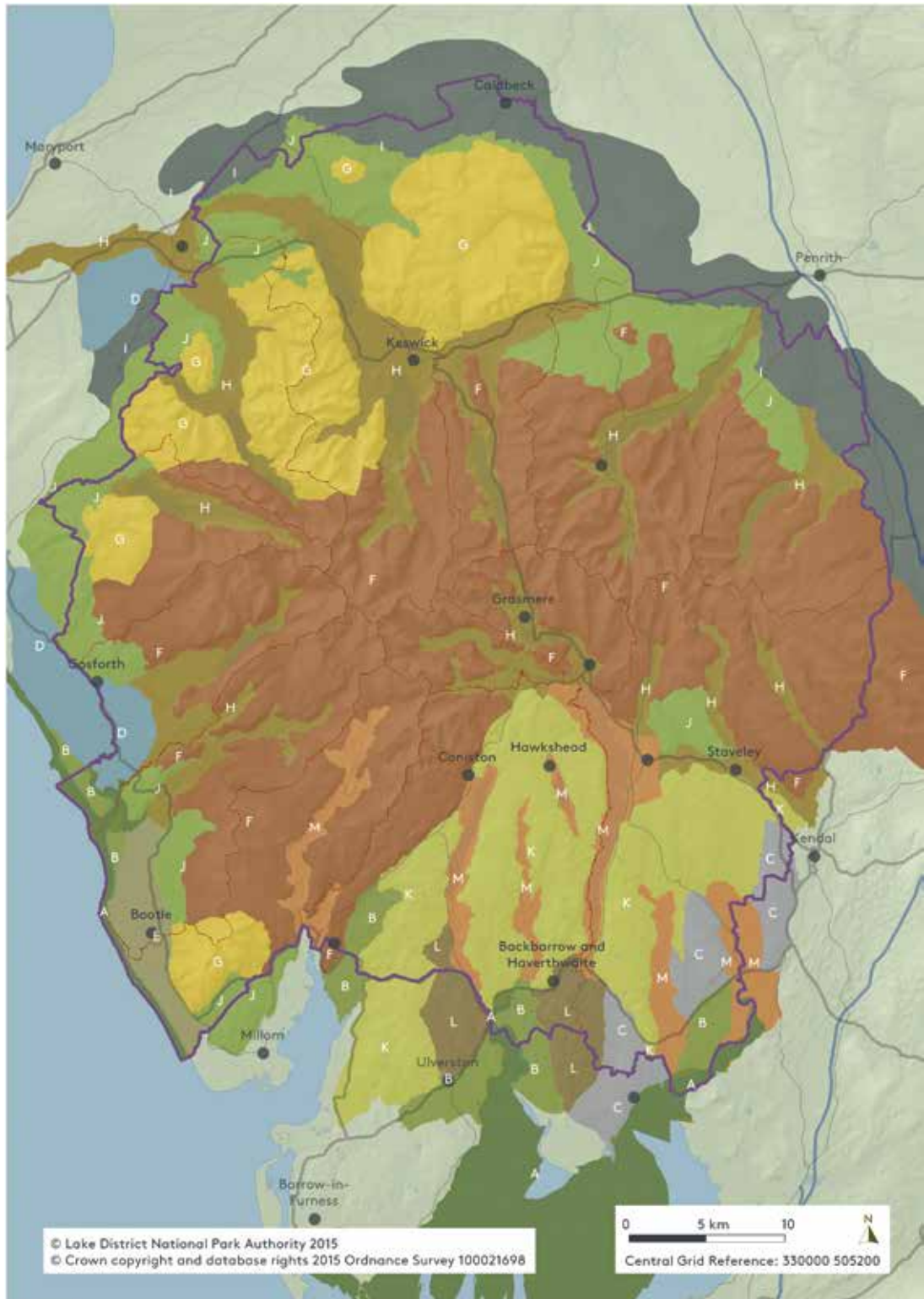
Table 4.5 reports on the condition of a number of key attributes including the condition at a landscape scale of evidence of pre-medieval settlement and agriculture, medieval buildings, and distinctive early field systems. The Landscape Characterisation Assessment suggests that the general condition of attributes associated with the landscape is generally good, and the character types where the condition is poorer is generally associated with the poorer condition of habitats and biodiversity. Many of the landscape character areas cover large areas of land, and while the general condition of these character types may be generally good it is inevitable that some specific features may not be in good condition as demonstrated in the summary of landscape character type H in the table above.

Measures are being undertaken to improve the condition of the character types where decline has been identified. One important mechanism to improve the condition of attributes and the landscape more generally over the past 15 years has been through agri-environment schemes. Through the Natural England administered Environmentally Sensitive Area Scheme for traditional farm building restoration, £6.2 million was claimed to restore these buildings ensuring that these attributes are in positive conservation management. The condition of traditional boundary features has also improved significantly through agri-environment funding with considerable restoration and maintenance of the dry stone walls that provide a unifying element in the landscape. Other important measures include vegetation clearance programmes run by the Lake District National Park Authority archaeological service utilising its volunteers.

TABLE 4.5 Condition of Lake District Landscape Character Types
(Lake District National Park Landscape Character Assessment and Guidelines, 2008)

CHARACTER TYPE	OVERALL CONDITION	SUMMARY OF CONDITION
A – Estuary and Marsh Landscape Character Type	Good	The condition of the Estuary and Marsh Landscape Character Type is generally good. The closely grazed, fine sward saltmarshes, mudflats, remnant hedges and other habitats enrich the ecological condition of this landscape. There are some elements showing signs of decline in places, including the loss of some hedgerows, set back from the coastline.
B – Coastal Margins Landscape Character Type	Moderate	The overall condition of the Coastal Margins Landscape Character Type is considered to be moderate. The semi-natural vegetation within this landscape is occasionally grazed or mown, contributing to ecological diversity. There is, however, evidence of decline within this landscape, where cobble stone banks have been replaced by wire fences, leading to a loss of traditional vernacular landscape pattern. Run down industrial buildings or dilapidated agricultural buildings are also detractors. Decline in the condition and extent of hedgerows within this landscape is also evident, particularly on the coastal moorlands, where they are tending to become overgrown or with a number of gaps. There is also evidence that the edges of some of the moorlands are drying out due to drainage.

FIGURE 4.2 Landscape Character Types (after fig 3.3, Landscape Character Assessment 2008, www.lakedistrict.gov.uk/caringfor/policies/lca)



- | | | | |
|-----------------------------|--------------------------------------|-------------------------------|---------------------|
| Nominated Property boundary | Valley boundary | | |
| A - Estuary and Marsh | E - Coastal Sandstone | H - Upland Valley | K - Low Fell |
| B - Coastal Margins | F - Rugged/Craggy Volcanic High Fell | I - Upland Limestone Farmland | L - Low Fell Fringe |
| C - Coastal Limestone | G - Rugged Angular Slate High Fell | J - High Fell Fringe | M - Lowland Valley |
| D - Lowland | | | |

TABLE 4.5 continued

CHARACTER TYPE	OVERALL CONDITION	SUMMARY OF CONDITION
C – Coastal Limestone Landscape Character Type	Good	The overall condition of the Coastal Limestone Landscape Character Type is considered to be good. The historic pattern of fields bounded by stone walls is generally intact, although in places neglect and loss of field boundaries is evident. The patchwork of semi-improved pasture, semi-natural woodland (with pockets of limestone heath and juniper scrub) and limestone pavements contribute to good ecological condition overall, though some species rich pastures are declining owing to lack of mixed grazing.
D – Lowland Landscape Character Type	Good	The overall condition of the Lowland Landscape Character Type is considered to be good. Most landscape features are generally well managed. Patches of unmanaged woodland are, however, visible and there is also evidence of neglected stone walls and loss of hedgerows, which have been replaced by fences.
E – Coastal Sandstone Landscape Character Type	Moderate to good	The overall condition of the Coastal Sandstone Landscape Character Type is considered to be moderate to good. The rolling pasture fields are generally in moderate ecological condition, however, there is evidence of the loss of traditional hedgebanks that delineate field boundaries. This has led to a weakened landscape pattern.
F – Rugged/ Craggy Volcanic High Fell Landscape Character Type	Poor to moderate	The overall condition of the Rugged/ Craggy Volcanic High Fell Landscape Character Type is considered to be poor to moderate, due mainly to historic overgrazing of montane heathland habitats and blanket bogs. The condition, composition and structure of these habitats is, however, beginning to change with lower stocking rates and grazing levels increasing natural scrub and woodland regeneration. Much of the remaining semi-natural woodland has a poor age structure and suffers from grazing, preventing regeneration. Scrub is starting to develop in some areas of fell where grazing pressure has been reduced within this Landscape Character Type. In places, lack of stone wall management and replacement with fences is a visual detractor. Upland path erosion is also increasingly a visual detractor despite efforts to restore the worst affected areas.
G – Rugged/ Angular Slate High Fell Character Type	Poor to moderate	The overall condition of the Rugged/ Angular Slate High Fell is considered to be poor to moderate, though improving. As a result of historic overgrazing, the condition of acid grassland, blanket bog and rough grassland is generally poor though recovery is beginning as a result of recent reductions in grazing. The condition, composition and structure of these habitats is, however, beginning to change with lower stocking rates and grazing levels leading to improved mosaics of upland vegetation. In places, lack of stone wall management, and replacement with fences is a visual detractor. Upland path erosion is also a visual detractor. There is generally good survival of historic and archaeological features.
H – Upland Valley Landscape Character Type	Good	The overall condition of the Upland Valley Landscape Character Type is considered to be good, with high water quality within most lakes, rivers and waterbodies, rich biodiversity in the largely intact hedgerow network and patchwork of woodlands, and a strong archaeological record. There are, however, some elements of declining condition: some hedgerows, hay meadows, walls, pollards, mature trees and vernacular buildings are in poor condition and evidence of a gradual loss of traditional management is apparent.
I – Upland Limestone Farmland Landscape Character Type	Good to moderate	The overall condition of the Upland Limestone Farmland Landscape Character Type is considered to be good to moderate, resulting from the rich ecological condition of herb-rich calcareous grassland and woodland habitats, becks, rivers and mires and the survival of historic estate features. Woodland and clumps of trees are generally well managed, and there is an intact hedgerow and wall network. There are some elements showing signs of decline in places, particularly the loss and poor maintenance of occasional hedgerows and replanting of historic parkland with conifers. Much of the remaining parkland is in moderate condition with key features lacking maintenance and a lack of replanting of parkland trees.

CHARACTER TYPE	OVERALL CONDITION	SUMMARY OF CONDITION
J – High Fell Fringe Landscape Character Type	Good	The overall condition of the High Fell Fringe Landscape Character Type is considered to be generally good. There are relatively few sites important for their ecological habitats in this type as it is predominantly improved agricultural land, but there are numerous sites of historical and archaeological interest, including prehistoric funerary cairns, field systems, hut circles, stone circles and Roman forts. The stone walls and hedgerow network are generally well maintained. However, there is some evidence of the loss and poor maintenance of some hedgerows and loss of field boundary trees. The limited areas of parkland and designed landscapes in this type are generally in good condition.
K – Low Fell Landscape Character Type	Good	The overall condition of the Low Fell Landscape Character Type is considered to be good. There is rich biodiversity within the large areas of semi-natural and coniferous woodland (much of which is on ancient woodland sites) and patchwork of rough grassland, semi-improved pasture, small broadleaved and coniferous copses, rock outcrops, heathland, tarns and becks, small wetlands, mires and bracken. The landscape pattern of dry stone walls (with a predominance of local limestone and slate) is strong. Parkland and designed landscapes are generally in good condition though there is a need to plan for long term replacement of trees. In places, there is evidence of decline of stone walls and occasional loss of hedgerow field boundaries.
L – Low Fell Fringe Landscape Character Type	Good	The overall condition of the Low Fell Fringe Landscape Character Type is considered to be good. Full hedgerows or intact stone walls often frame fields, and pockets of woodland, scrub and mosses enrich the ecology and visual interest of this Landscape Character Type. There are some elements showing signs of decline in some places, particularly the loss or poor maintenance of stone wall and hedgerow field boundaries. Overall, however, there is a predominantly intact landscape pattern throughout this Landscape Character Type.
M – Lowland Valley Landscape Character Type	Good	The overall condition of the Lowland Valley Landscape Character Type is considered to be good, with its high water quality (within numerous rivers, streams and lakes) and rich biodiversity in woodland and other habitats. The largely intact, strong pattern of hedgerows and stone walls delineating field boundaries and mature, well maintained parkland landscapes further contribute to the predominantly good condition of landscapes within this Landscape Character Type. Occasionally there is evidence of decline in the management of stone walls and hedgerows.

BIODIVERSITY

Biodiversity is of considerable importance to the nominated Property since it makes a vital contribution to its character; however, nationally and locally there has been a reported decline in the condition of biodiversity. There are 856 square kilometres of Priority Habitats and 422 square kilometres of Sites of Special Scientific Interest (SSSI) designated in the nominated Property. The physical condition of biodiversity in the nominated Property is considered against a series of proxy indicators outlined in Table 4.6. From the available data the indicators suggest the general condition of biodiversity can be judged to be moderate, but with signs of recovery.

TABLE 4.6 Condition of biodiversity

	FAVOURABLE	UNFAVOURABLE RECOVERING	UNFAVOURABLE NO CHANGE	UNFAVOURABLE DECLINING
Percentage of SSSI	24.6	66.7	6.5	6.5
Percentage of Priority Habitats	8.3	24.4	1.4	1.4

A significant proportion (217.52 square kilometres/34 per cent) of common land is protectively designated under environmental designations such as Sites of Special Scientific Interest, Special Protection Areas, and Special Areas of Conservation. Whilst the Sites of Special Scientific Interest and priority habitats are not attributes of Outstanding Universal Value in their own right, they do act as a proxy to describe and indicate the condition of commons given the area of common land designated by these protective designations. They also make a significant contribution to the character of the Lake District.

WOODLAND AND INDUSTRY

Woodland industries, mining and quarrying are important local industries that have helped to shape the character of the nominated Property. There are 10,000 hectares of semi-natural woodland, and although there are no data available on the condition of these woodlands only eight per cent of all woodland in the nominated Property is in a Forestry commission Woodland Management Scheme. The new Countryside Stewardship land management scheme will help further to encourage landowners to bring woodland into active management. The Lake District National Park Authority in partnership with the Forestry Commission, Natural England and other partners, has secured Heritage Lottery Funding to deliver practical conservation measures in woodland landscapes in the Coniston Valley. The number of active quarries in the nominated Property provides an indication of the state of conservation of the mining and quarrying industry. There are nine active stone and slate quarries in the nominated Property which provide an important source of raw materials for new and existing buildings and features.

WATER

Water is an integral attribute of the landscape, and is a key element in defining the character of the Lake District. Water was instrumental in the development of local industry, and while many features associated with water are no longer in active use, today they are important archaeological or historical features. Some of these are protectively designated as Listed Buildings or Scheduled Monuments, while others are undesignated but recorded on the Lake District National Park Authority's Historic Environment Record.

TABLE 4.7 Ecological condition of designated waterbodies

TYPE OF WATERBODY	TOTAL NUMBER OF WATERBODIES	NUMBER AND PERCENTAGE IN AT LEAST 'GOOD' ECOLOGICAL STATUS	
		2010	2012
Lakes	38	11 (29%)	13 (34%)
Rivers	95	40 (42%)	40 (42%)

There are 133 designated waterbodies within the nominated Property. Some of these directly supply drinking water to the region of North West England; therefore it is important that the condition of water quality is good. The ecological status of waterbodies, using the Water Framework Directive classification system, allows the condition of water to be established. This serves as a useful proxy indicator for attributes associated with the use of water, and harmonious beauty of the nominated Property

The Environment Agency, one of the 25 partners in the Lake District Partnership leads on a wide range of conservation measures including managing abstraction and discharge licences to ensure water quality is maintained.

4.a.3 A LANDSCAPE WHICH HAS INSPIRED ARTISTIC AND LITERARY MOVEMENTS AND GENERATED IDEAS ABOUT LANDSCAPES THAT HAVE HAD GLOBAL INFLUENCE AND LEFT THEIR PHYSICAL MARK

IMPACT OF THE PICTURESQUE AND ROMANTIC MOVEMENTS

People have been visiting the English Lake District for centuries, and this has led to the second theme of the Lake District's bid for World Heritage nomination. There are a number of attributes of Outstanding Universal Value associated with this. Mostly these are modifications of the landscape to make it conform more to the Picturesque ideal, such as viewing stations, and designed landscapes. Other physical attributes include buildings such as villas.

A report reviewing West's 18th century Picturesque Viewing Stations in the Lake District National Park (Archaeo-Environment Ltd, 2009), provides a summary of the condition of these sites and management requirements to restore the views. The report summarises the management requirements in Tables 4.8 – 4.12. The condition of viewing stations can be considered to be moderate as just over half of the viewing stations do not require active management measures, whereas other sites do require works. The focus for these works is usually associated with tree thinning or removal. Figure 2.a.99 (Section 2) shows the locations of the viewing stations. Crosthwaite's viewing stations are also found on Figure 2.a.99 but only the condition and managements for West's viewing stations have reviewed.

TABLE 4.8 Management requirement of viewing stations on Derwent Water (West's 18th century Picturesque Viewing Stations in the Lake District National Park (Archaeo-Environment Ltd, 2009). See Figure 2.a.99 in Section 2 for the location of these viewing stations.

DERWENT WATER	ACCESSIBILITY	MANAGEMENT ACTIONS REQUIRED TO RESTORE VIEWS
STATION I	Public Right of Way nearby	Tree thinning, access required to top of hill
II	National Trust accessible pasture land, potential for access for all	None required
III	Public Right of Way, National Trust land	Limited pruning or lopping
IV	Public Right of Way (difficult climb)	Tree thinning
V	Private land	Negotiate access if possible?
VI	Developed	Use alternative below
VI alt	National Trust accessible land with I	None
VII	Permissive path	None
VIII	Private land, developed	None

TABLE 4.9 Management requirement of viewing stations on Windermere. See Figure 2.a.99 in Section 2 for the location of these viewing stations.

WINDERMERE	ACCESSIBILITY	MANAGEMENT ACTIONS REQUIRED TO RESTORE VIEWS
STATION Ia	Accessible with car park. Steps to tower.	Tree thinning and restoration of tower
Ib	Private land	None recommended to avoid intrusion of privacy, but see alternative below
Ib alt	National Trust land, easy access with car park adjacent	No
II & III	Private land	None recommended to avoid intrusion of privacy
IV	Lake District National Park Authority land, only accessible on footpath, no parking nearby	Some tree thinning and provision of additional seating
Va	Private, but open access land, rough terrain	Some tree thinning required on adjacent landholdings
Vb	Field in agricultural use but publicly owned, lay by adjacent	Some tree thinning around lake perimeter or use alternative below
Vb alt	National Trust picnic site and viewpoint, car park and toilets nearby	Some tree thinning around perimeter

TABLE 4.10 Management requirement of viewing stations on Bassenthwaite. See Figure 2.a.99 in Section 2 for the location of these viewing stations

BASSENTHWAITE	ACCESSIBILITY	MANAGEMENT ACTIONS REQUIRED TO RESTORE VIEWS
STATION I	Hotel grounds	None
II	Private	None recommended to avoid intrusion of privacy
II alt	Footpath, rough ground	None
III	Private	None recommended to avoid intrusion of privacy
III alt	Public Right of Way	Some tree thinning
The Rakes	Public highway	Lower hedge height
IV	Old road, view now developed	None recommended to avoid intrusion of privacy
IV alt	Car park and on Coast 2 Coast route	Tree thinning and rationalisation of road signs, some seating required

TABLE 4.11 Management requirement of viewing stations on Coniston. See Figure 2.a.99 in Section 2 for the location of these viewing stations.

CONISTON	ACCESSIBILITY	MANAGEMENT ACTIONS REQUIRED TO RESTORE VIEWS
I	Private	None recommended to avoid intrusion of privacy
II	National Trust land	Tree and scrub thinning
III	Lake foreshore with public access	None
IV	Boat access	None
V	Adjacent to Public Right of Way	Substantial woodland thinning
VI	Public Right of Way	No recommendations – but see alternative below
VI alt	National Trust land with gazebo	Some tree thinning in front of gazebo, but views still may not be as good as original station

TABLE 4.12 Management requirement of viewing stations on Ullswater. See Figure 2.a.99 in Section 2 for the location of these viewing stations.

ULLSWATER	ACCESSIBILITY	MANAGEMENT ACTIONS REQUIRED TO RESTORE VIEWS
I	Permissive path, rough track	Tree thinning, bracken control. Scheduled Ancient Monument
II	National Trust, rough track, seating	Tree thinning, see alternatives for people with mobility difficulties
II alt	National Trust picnic site and beach, layby adjacent with seat	Limited tree thinning in places
III	Private, Public Right of Way adjacent, hotel and car parking nearby	Tree thinning
IV	Private	None, possible alternative below?
IV alt	Hotel grounds	Some modest tree thinning along water's edge
Lyulph's Tower	Private Negotiate	Access if possible and carry out necessary repairs to tower
Lyulph's Tower alt	Public Right of Way accessible from National Trust car park with WC and café and access to Aira Force	Stabilise stile; sign viewpoint from path at Aira Force

The nominated Property contains nine designated Registered Parks and Gardens which include features and attributes of the designed landscape (Figure 5.5). Although not all attributes are designated and are not actively monitored, those that are Registered Parks and Gardens are monitored by Historic England. An 'at risk' register is maintained to monitor the condition of these attributes; none of the Registered Parks and Gardens are classified as being 'at risk' (Table 4.1). The National Trust owns some of the other key designed landscapes that are not designated including Allan Bank, Aira Force and Fell Foot with each of these having received or having planned financial investment, and site management plans to ensure their condition is maintained. As such the condition of the designed landscape is considered to be generally good.

TABLE 4.13 Proportion of visitors undertaking activities in the English Lake District

	2006	2009	2012
Visitors undertaking cultural activities	31%	15%	32%
Visitors undertaking adventure activities	13%	7%	11%
Visitors undertaking activities which involve experiencing the landscape and environment	41%	21%	38%

Significant literary and artistic associations with the landscape, and residences and burial places of romantic poets are in generally good condition as these are usually managed and preserved by trusts, for example the National Trust, the Wordsworth Trust, and the Brantwood Trust. Where these sites attract considerable numbers of visitors they have specific visitor management plans to ensure the attributes are being preserved. The proportion of visitors undertaking cultural activities associated with these attributes (Table 4.13) provides a proxy indication of the levels of use of cultural associations and activities in the landscape.

Villas within the nominated Property form part of the diverse built environment. Many of these villas are Listed Buildings and benefit from these protective designations. As such the indicator of Listed Buildings 'at risk' is used as a proxy to assess the condition of this attribute. Their condition is generally good as there are very few Listed Buildings 'at risk' within the nominated Property (Table 4.1).

Villas are most vulnerable to development pressures. Therefore the most significant conservation measures to for this attribute are centred on the planning system. The planning system offers protection against inappropriate development of the feature and its setting through appropriate planning policies and decision taking (see Section 5.c).

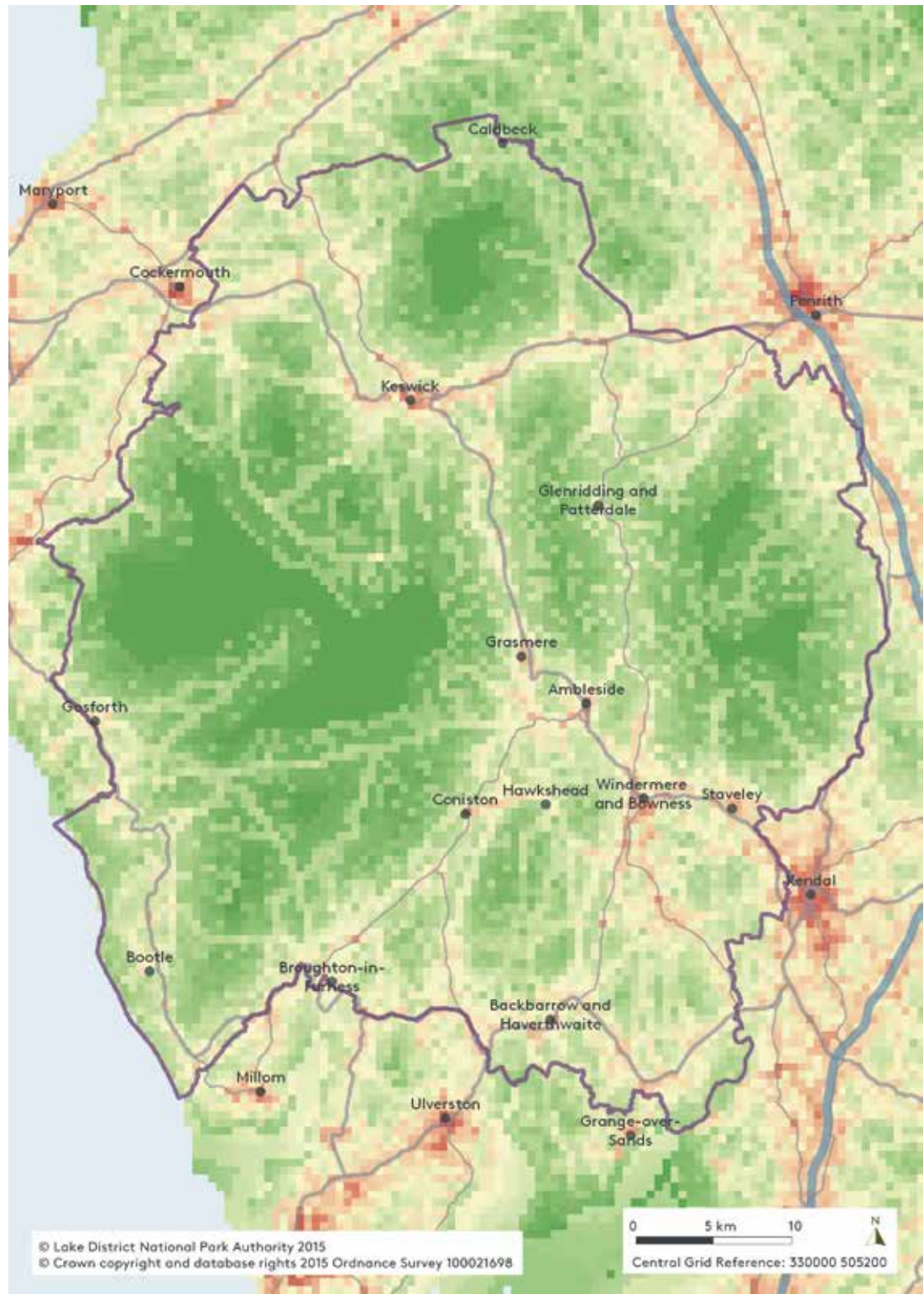
PUBLIC ENJOYMENT AND CULTURAL TOURISM

The nominated Property offers opportunities for quiet enjoyment and spiritual refreshment. The high fells, valleys, lakes and tarns offer many visitors opportunities to escape the pressures of modern day life, giving a sense of space and freedom. Data collected by the Campaign to Protect Rural England provide an indication of the extent to which the nominated Property can be deemed to offer these opportunities. Figure 4.3 demonstrates that the majority of the Lake District, away from the busier towns and villages, busier roads and the central lakes area, contains some of the most tranquil areas in the country. A range of conservation measures ensure the tranquillity of the nominated Property is protected, including planning policies guiding the determination of planning applications, for example, by preventing unnecessary lighting on buildings. This ensures inappropriate developments do not take place and harm the tranquillity of the property. The visitor management plan which forms part of the Management Plan.

Much of the early tourist infrastructure (such as hotels, coaching inns), is still performing the same function that it did when it was first developed, helping the nominated Property retain its authenticity and integrity. The general condition of the early tourist infrastructure is therefore good. The key indicators for this early tourist infrastructure are the condition of Listed Buildings and condition of Conservation Areas in settlements.

There is a large and historic network of footpaths for visitors to enjoy and access the Lake District. Pressures associated with use of these paths vary according to popularity of routes and so does their condition. A combination of millions of pairs of walking boots, the weather and gradient means erosion is a constant problem. A team of skilled rangers and volunteers working under the project 'Fix the Fells' repair and maintain the mountain paths in the Lake District with funding from donations and partners. This path repair work reduces erosion scars and also helps protect the ecology and archaeological heritage of the landscape. The Lake District National Park Authority monitors the condition of footpaths that are easy to use, and this provides a useful indication of the ability of visitors to access the Lake District. Seventy eight per cent of the total length of footpaths and rights of way are easy for the general public to use.

FIGURE 4.3 Extent of tranquillity



□ Nominated Property boundary

Tranquillity

High

Low

Tranquillity data © Lake District National Park Authority 2006

4.a.4 A LANDSCAPE WHICH HAS BEEN THE CATALYST FOR KEY DEVELOPMENTS IN THE NATIONAL AND INTERNATIONAL PROTECTION OF LANDSCAPES

The extent of National Trust ownership is a good indicator to help demonstrate whether attributes associated with the development of the model for protecting the cultural landscape are being maintained. In 2015 the National Trust owned 44,578 hectares, excluding covenanted land (4,233 hectares), ensuring that this property and the features within it are protected for conservation purposes (see section 5.a and 5.b for purpose of National Trust covenanted land).

In addition to the National Trust's extensive land ownership a diverse range of other trusts own land within the nominated Property. As the ownership is so diverse it is not possible to identify how much land is owned by trusts. Organisations including Wildlife Trusts, the Wordsworth Trust, Brantwood Trust, Woodland Trust, Lakeland Arts Trust, and Friends of the Lake District are just some of these trusts which help to demonstrate the continuation of the conservation movement.

The Landscape Characterisation Assessment 2008 is an important step in development and evolution of the model for protecting the cultural landscape. As summarised in Table 4.5 above the Landscape Character Assessment identifies the current condition of the different landscape sub-types within the nominated Property. The new Management Plan for the property makes a commitment to undertake a review of the condition of the Landscape as part of the monitoring of the site. This will indicate whether conservation measures and other impacts have had a positive or negative impact on the baseline established in 2008.

CONSERVATION MEASURES



FIGURE 4.4 Wha House Farm, Eskdale. Owned by the National Trust.

Approaches to the conservation of individual classes of attribute have been outlined above. The nominated Property's generally good physical condition is a result of this range of conservation management practices and measures.

Not all of the practices and measures are recent – the National Trust, who through a legacy of land purchase, donation, lease or covenant now own approximately 21.9 per cent of the

nominated Property, was founded in 1895. Their upland estate (freehold and leasehold) covers about 46,000 hectares of land including 90 separate farms, 198 houses and some 22,500 hectares of common land. This makes the National Trust the main landowner in several valleys including Langdale, Wasdale and Ullswater.

Designation of the nominated Property in 1951 as a National Park was significant to ensure its conservation, as the first purpose of National Parks is to "conserve and enhance the natural beauty, wildlife and cultural heritage". The formation of Friends



FIGURE 4.5 Young volunteers undertaking footpath repairs through the MOSAIC project



FIGURE 4.6 Volunteers repairing a stone wall

of the Lake District as a registered charity in 1934 to promote and conserve the Lake District's landscape and natural beauty is also an important factor in ensuring the property's good physical condition through lobbying decision makers, research, and delivering practical events such as hedging and walling competitions, and conservation days including walling, woodland work, and Balsam bashing.

A range of conservation management practices has been and continues to be delivered through 'agri-environment' schemes providing financial awards for farmers and land managers to deliver environmental benefits which include supporting biodiversity, enhancing the landscape, and improving the quality of water, air, and soil. A new 'agri-environment' scheme called 'Countryside Stewardship' is being delivered as part of the new European Union Common Agricultural Policy environmental land management scheme and it will begin providing funding in 2015 to contribute to the conservation to conserve agro-pastoralism in the nominated Property.

The Heritage Lottery Fund has been, and continues to be, an important source of funding to support conservation management projects in the Lake District. In the past these have included 'Fix the Fells' – a footpath restoration project which has repaired 207 path sections on the fells, developing a strong volunteering programme. The 'Fell Futures' project offers a unique chance for young people to learn traditional rural heritage skills while working as apprentices in the Lake District National Park. The Windermere Reflections project aims to protect and enhance the natural heritage of the Windermere catchment and its landscape, together with a range of programmes and activities to engage people with the landscape; and redevelopment of the Windermere Steamboat Museum is a major revitalisation of the attraction.

The planning system offers significant protective measures to conserve the nominated Property (see Section 5.c). Planning policies in the Lake District Local Plan offer protection to a wide range of attributes, including the built and historic environment. Decisions on the suitability of planning applications on a case by case basis are made against these planning policies.

The Management Plan for the nominated Property provides a framework for decision making by all 25 partners of the Lake District National Park Partnership to ensure its ongoing conservation (see Section 5.e). As such, it is clear that there are adequate measures to conserve and protect the nominated Property, and retain its generally good condition.

SECTION 4.b

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Factors affecting the Property

4.b FACTORS AFFECTING THE PROPERTY

The property is a living cultural landscape and one in which measures for protection need to go hand in hand with considerations for the economic, social, cultural, physical and environmental needs of the communities. It is important to note that cultural landscapes such as the English Lake District are subject to multiple evolutionary factors that could indeed cause the disappearance of certain elements, thus changing the site's appearance. Local development plans have been devised for land use policies to control and promote development to help satisfy these needs within the requirement to protect the Outstanding Universal Value of the nominated Property, and the National Park and World Heritage Management Plan guides factors not involving development planning. Given the sheer size and diversity of this property a wide range of factors may affect it.

4.b (i) DEVELOPMENT PRESSURES

NEW DEVELOPMENT

The UK is a crowded country averaging 413 people per square kilometre. But the nominated Property has a population density of just 17.8 people per square kilometre with a resident population of 40,800. However, there is a larger population in the surrounding areas, and the Lake District receives in the region of 15.5 million visitors annually. It is unsurprising and inevitable that there is development pressure as people seek to construct, extend, and modify places. There is already significant development both within the nominated Property, and near it. For example, there are many towns and villages, tourism facilities, renewable energy schemes, flood defence schemes, reservoirs, telephone masts, quarries, and main highway routes within the property; and outside, but near it, there is a nuclear fuel reprocessing and decommissioning facility, wind turbines, and national motorways and rail lines.

New development has the potential to impact both positively and negatively on the Lake District's values. Changes in the English Lake District landscape over the last two centuries have varied in scale and impact from reservoirs and road schemes to relatively small-scale development of barns or dwellings. But even small changes in sensitive locations, such as single telecommunications masts, can easily spoil the landscape character. Poor design can introduce a suburban element that is inappropriate in a rural setting. Cumulative impacts can be equally damaging; for example excessive lighting can deny views of the night sky. The challenge is to ensure that new development maintains the character and attributes of Outstanding Universal Value. The planning system, including the planning policies prepared by the Lake District National Park Authority – the Local Planning Authority, ensures that the Outstanding Universal Value is protected and conserved.

The Lake District National Park Authority receives in the region of 1,000 planning applications every year for a variety of proposals, both large and small scale. New development is managed, and this ensures that the majority of development takes place in existing settlements as guided by planning policies prepared by the Lake District National Park Authority. The threat from new wind farm developments close to, but outside, the nominated Property has subsided a little in recent years due to changes in Government policy and the cumulative impact of further schemes. However, there are new development pressures outside the nominated Property including for a new nuclear power station adjacent to the existing one, new electricity pylons, and a new water pipeline to serve drinking water to West Cumbria. The Lake District Landscape Characterisation Assessment forms a key piece of evidence to inform decisions on these development proposals.

HOUSING PRESSURES

The provision of a sufficient range, diversity, affordability and accessibility of housing within a balanced housing market is a core component of a sustainable community. Housing in the Lake District is subject to a wide range of demands such as:

- Inward migration (from people of working age and the retired)
- Second home ownership
- Indigenous purchasers
- Holiday letting

This has resulted, in some settlements, in the percentage of properties not in permanent residential occupation exceeding 50 per cent.

Earnings in the Lake District are lower than in neighbouring urban areas, making it difficult for people reliant on local wages to compete for housing in an open market. As a consequence, it is more difficult for local people to afford houses in comparison to many other areas of the UK. In some areas the lack of affordability is having a detrimental effect on the vibrancy of local communities.

Many areas of the Lake District have a relatively limited supply of available housing. Environmental constraints and too few affordable houses in rural locations have contributed towards a relatively large affordable housing need. The stock of social housing in rural areas has been eroded by 'Right to Buy' schemes, and those houses have not been replaced by new provision. As a result, there has been an outward migration of young people and young families because they cannot access the local housing market.

The economic feasibility, requirement of higher building standards, and Government policy relating to the provision of affordable housing can affect the design and size of these development proposals. These factors may result in larger schemes being proposed where there has been limited development in the past, in order to secure their financial viability. The Lake District Local Plan undertook an extensive investigation to identify suitable sites for affordable housing development, allocating provision for in the region of 440 units. These sites are located in towns and villages where the greatest access to

services is provided and housing needs are found. The sites are presented on maps in the Local Plan (www.lakedistrict.gov.uk/planning/planningpolicies/allocations-maps).

TOURISM DEVELOPMENT PRESSURES

Changes in visitor expectations and their requirements create development pressures for new visitor facilities and alterations to existing ones. These pressures for change are reinforced by competition from other UK and international destinations. If development is not managed sensitively it can affect the landscape: the key reason for many people's visit. Visitation pressures and responsible visitation to the nominated Property are considered in greater detail in chapter 4.b (iv). The Lake District Local Plan is used to manage development proposals to ensure development for visitor facilities does not harm the nominated Property and its attributes.

CHANGING AGRICULTURAL PRACTICES

Agro-pastoralism has a key role to play now and in the future in maintaining the Lake District's landscape and its Outstanding Universal Value. The development of the present cultural landscape owes a great deal to agriculture involving mainly small farms. Forestry also plays a part in maintaining features that add variety, colour and texture to the landscape as well as providing wider economic benefits. There are a number of potential pressures on its future well-being, while developments within the farming system could have an adverse impact on the nominated Property.

MAINTENANCE OF TRADITIONAL BREEDS OF FARM ANIMALS

Defra's 'UK Country Report on Farm Animal Genetic Resources 2012', recognises that some of the UK's breeds fulfil an important social, cultural and historic role over and above their direct contribution to the UK economy. Native breeds have had a historical role in helping to shape the countryside and in defining the regions where particular breeds have strong roots. In recent years there has been increasing interest in the relationship between livestock and landscape, where livestock are seen as a component of the landscape rather than just a means to maintain or restore landscapes. This is perhaps most marked where particular breeds have cultural significance, such as Herdwick sheep in the Lake District. The Farm Animal Genetic Resources Committee identifies UK native breeds at risk, which includes the Herdwick.

It is estimated by the Herdwick Sheep Breeders Association that approximately 99 per cent of all Herdwick sheep are kept in commercial flocks in the central and western dales of the nominated Property. This means that the breed is vulnerable to outbreaks of disease in the Lake District as was demonstrated by the foot and mouth epidemic in 2001. A supplementary payment is also available under the new Countryside Stewardship scheme for breeds at risk, although it cannot be claimed on common land or shared grazing areas, which accounts for significant tracts of the nominated Property.

REDUNDANT FARM BUILDINGS

Agricultural practices within the nominated Property have evolved since the industrial revolution with new technologies and equipment changing the way farms work, for

example reducing the number of farm workers and increasing farm sizes. Traditional stone and slate barns are often incompatible with changing farming practices so are surplus to requirements, resulting in changes to the landscape. These buildings form a liability to already economically vulnerable businesses. Unless suitable alternative uses can be found, such as conversion for holiday letting or residential use, they often fall into a state of disrepair. Modern agricultural buildings which can accommodate changing practices and equipment can alter the character of farms, as they are often not constructed in traditional materials such as stone and slate due to the costs of these materials.

SOCIO-ECONOMIC PRESSURES

Economic factors related to national and international circumstances and the changing aspirations of the young rural population are putting the agro-pastoral system under increasing strain. The lack of young people entering land based industries threatens the passing on of many traditional land management and maintenance skills, including drystone walling, hedge laying, or coppicing, resulting in possible landscape change and threats to attributes associated with the landscape.

Farm diversification and funding from agri-environment schemes can support farm enterprises by helping alleviate pressures on their incomes and can help to sustain businesses in the long term. Diversification is now an important element in trying to make farming profitable, but this may change the focus of the farm business and result in neglect; for example through lack of time available to maintain or repair traditional features such as hedgerows, stone walls and stone-faced banks. An increase in diversification on farms resulting in greater activity on other enterprises could have an impact on the character of the nominated Property.

Changes in agri-environment payments from the Common Agricultural Policy have resulted in significant changes to the nominated Property. Sheep numbers in the 1980s and 1990s increased significantly as a result of payments being based on the number of stock on each farm. Since then, changes in payment systems have resulted in decreases in sheep numbers in particular. Changes being introduced by current reform of the Common Agricultural Policy are expected to result in further impacts on agro-pastoralism as payments are focussed more towards conservation and 'greening' measures linked to improving biodiversity and habitats. Livestock numbers will continue to fluctuate and change as a result of a range of factors affecting attributes. Overstocking of livestock can lead to deterioration of fell vegetation and harm to the condition of landscape types particularly on high fells. But reductions in stocking levels may lead to the spread of bracken, loss of hefting of native breeds, and changes in commons management as there are fewer active graziers.

Changing consumer demands for food and the profitability of rearing some types of livestock has also changed the market for some farmers. This has affected the type and number of livestock reared on Lake District farms and the fells. Farming in the Lake District is still characterised by sheep and beef production, and is likely to continue to do so, but recent data show that breeding sheep numbers have increased from 310,000 in 2009 to 340,000 in 2013 (but still significantly lower than sheep numbers of the 1980s and 1990s), but beef cattle numbers have fallen from 17,000 to 15,860 over the same period suggesting farming in the nominated Property is focussing even further towards

sheep. These changes may affect the nature of farming and farmland including the open nature of the fells, and could lead to overgrazing and proposals to fence off areas of fell to allow biodiversity and habitats to recover.

The economic factors and fewer young people entering agriculture are also influencing the size and tenures of farms. Current trends indicate fewer tenancy successions from one generation to the next and a polarisation in farm sizes, with the number of larger farms increasing (through amalgamations), see Table 4.3 above. This trend may reduce the number of landlord flocks as there are fewer farms. Further economic decline of the agricultural sector could have significant impacts on the ability to maintain the landscape including maintaining agricultural flood defences in valley bottoms; hedgerows; stonewalls; and traditional barns and lead to harm to the Outstanding Universal Value.

COMMUNITY CULTURE AND IDENTITY

Strongly influenced by housing pressures and changes in agricultural practices, the change in local community dynamics can result in the loss of community integrity. There is a danger that local traditions, events and dialects may be lost or weakened if community structures change considerably, resulting in the gradual erosion of those elements that make areas distinctive. For example, there may be a decline in the number of shepherds' meets and shows as there are fewer active farmers and residents left to support such events. In 2014 the Borrowdale Shepherds' Meet was only rescued after a social media campaign to save it secured the funding needed to ensure it could take place. A decline in the number of working residents, influx of people moving into the area, or an increasing proportion of retired people risks preventing local traditional skills being passed on. This change in demographics poses a risk to quality and condition of attributes of Outstanding Universal Value, especially those associated with the landscape.

MINERALS EXTRACTION

The geology which forms the bedrock of the English Lake District is of great significance. Traditionally, development within the Lake District has been able to use building materials from local sources. This is in line with principles of sustainable development. There are currently nine active building stone and slate quarries and three active crushed rock quarries in the Lake District.

The character and appearance of the Lake District's built environment is a central part of its cultural heritage and Outstanding Universal Value. Many areas of the Lake District have their own distinctive character complemented by the local building styles and settlement form. The availability of materials and locally quarried building stone and slate has played an important part in the creation of this local vernacular. These distinctive characteristics need to be protected and enhanced and to do this there needs to be a ready source of appropriate material which is currently provided by these existing quarries. The geological formations also need protection from over-exploitation and from the loss of an accessible educational and recreational resource.

NEW NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE

A new nuclear power station is proposed adjacent to the existing nuclear site, known locally as Sellafield (see Figure 4.9 Main Highway Routes), outside the nominated Property in West Cumbria. A feasibility and suitability study of the new power station site is currently being undertaken before a planning application is submitted. It is presently thought that there are unlikely to be any significant effects from this proposal, given its location adjacent to the existing nuclear site. However, infrastructure improvements are also required including replacement electricity pylons which may pass through or adjacent to the nominated Property. But National Parks confer the highest level of landscape protection in the UK and this policy position is further strengthened by planning policies of the Lake District Local Plan and strategies in the Management Plan for the nominated Property, informed by the Landscape Character Assessment. These would be major considerations in any planning decision.

During the 1990s and again during the past five years there have been plans and discussions about disposing of high level radioactive waste underground in West Cumbria, adjacent to the nominated Property. A planning application was refused in 1997 following a public inquiry into the suitability of the geology. The search for a suitable site resumed again in 2009 when the UK Government launched the search for a disposal site. In 2012 the local decision makers decided not to proceed with investigations, ending the process in West Cumbria. The Lake District National Park Authority expressed its views in relation to the siting of a disposal facility under the National Park in a response to a Government consultation about the siting process for a geological disposal facility. Its response stated:

“Given the particular importance of the Lake District National Park’s environment we would not support any proposals for Geological Disposal Facilities or intrusive investigations above or below ground within the National Park; nor would we support proposals which may affect the setting of the Park. This is due to the potential and actual harm Geological Disposal Facilities could have on the special qualities, and its potential and perceived impact on the visitor economy of Cumbria.”

Lake District National Park Authority Committee, 20 November 2013.

RENEWABLE ENERGY DEVELOPMENT PRESSURES

The nominated Property and its surrounding area offer significant potential for generating energy from renewable sources, including through wind turbines, hydro-power schemes, biomass generation, and solar panels. A study by the Lake District National Park Authority in 2014 estimated that there are 1,162 renewable energy installations in the nominated Property including 39 biomass installations, 16 heat pumps, 26 hydro schemes, 16 wind energy schemes, and an estimated 1,035 solar photovoltaic schemes. These schemes have been successfully installed without damaging the attributes of Outstanding Universal Value, but the cumulative impact of

further installations in the future will need to be carefully considered. The planning system offers a means of protection if the cumulative impact of developments begins to affect the attributes. The renewable installations installed in the nominated Property are small-scale installations to meet individual building or local community needs, and



FIGURE 4.7 A hydro-electric installation at Low Wood, Haverthwaite

avoids the need for pylons to transport the electricity generated. The Study identified that the total capacity of these schemes is approximately 13 megawatts which is equivalent to approximately five to seven large wind turbines.

The potential impacts on the nominated Property will vary according to proposals, their location, and the scale of development. Where a renewable energy development, or indeed any

development, is proposed outside the nominated Property the neighbouring public bodies and relevant authorities have a duty to take account of National Park purposes when they make their decisions, as outlined in the Environment Act 1995.

This requirement ensures unacceptable developments are unlikely to be granted planning permission, so should not affect the nominated Property or its setting.

HIGHWAY DESIGN

Much of the nominated Property's road network is characterised by narrow country lanes. However, there are highways which pass through the nominated Property that form part of the UK's Strategic Road Network. Highway design for both new and existing highways can affect the character of the nominated Property. The county-based 2005 report 'Rural roads at risk – saving the character of country roads' highlights how in recent decades the character of many rural roads has incrementally changed. Master plans for Keswick, and Windermere/Bowness have helped address this incremental change in town centres in a holistic and sympathetic manner, delivering localised traffic management issues and public realm improvement. Further proposals planned in settlements such as Ambleside and Grasmere will help to further redress this incremental change.

Pressures for improvements to the main highway routes such A590, A591, A66, and A595 (Figure 4.9) have the potential to affect the character of the nominated Property, particularly landscape nature and tranquillity.

LACK OF MAINTENANCE AND NEGLECT OF HISTORIC FABRIC

The historic environment is a fragile resource, as demonstrated by the relatively high proportion of Scheduled Monuments classified as being 'at risk' (see Section 4.a, Table 4.1). Many historical features are visible, but others are hidden under peat, pasture, or vegetation meaning that sites both above and below ground are susceptible to loss and damage. Lack of maintenance and neglect of such structures, and vegetation growth at sites, especially those that have no economic use, means that buildings can become susceptible to the elements and decay can be rapid. It is important that maintenance of

FIGURE 4.8 Main highway routes



the historic fabric of the nominated Property has a positive impact on attributes, using traditional techniques and materials to retain the integrity of the feature. Therefore there needs to be adequate supply of material including local stone and slate, and traditional skills.

CONVERSION AND ADAPTIVE RE-USE OF HISTORIC BUILDINGS

The appropriate re-use of historic buildings can secure their long term future leading to a positive impact on retaining attributes of Outstanding Universal Value. Staveley Mill Yard, originally known as Low Mill (constructed in 1825) is an excellent example of a successful conversion. Shops and industrial units including a brewery were developed when the wood turning business became unviable in the 1990s.

However, the inappropriate conversion of historic buildings, resulting in loss of character, poses a threat to attributes of Outstanding Universal Value that needs to be balanced with the benefits of losing historic buildings altogether (through neglect). The planning system is key in protecting this aspect of the built environment. The survival of local skills, for example dry-stone walling, is often dependent on factors such as the emigration of young people that are outside the National Park's direct control. But such skills are important to the conservation of the historic environment.



FIGURE 4.9 The re-use of Staveley Mill Yard. It now provides a number of employment and retail units.

WATER SUPPLY

The nominated Property has an abundance of water, with 16 main 'lakes' located within its boundary. Lake District reservoirs supply water to England's North West region including the major city of Manchester. As a result of climate change and other factors, there are pressures for change, including for new pipelines to supply water. Other factors that may affect the nominated Property come from seeking to improve water quality, including colouration by reducing sediment through lessening erosion and slowing water

run-off. Measures to achieve these improvements include tree planting on the open fell, and fencing areas off from livestock to allow ground to recover. Both measures can change the open nature of the fells and traditional agricultural practices, such as hefting.

4.b (ii) ENVIRONMENTAL PRESSURES

CLIMATE CHANGE

Climate change is the greatest environmental challenge facing the world today. There have been serious floods in and adjacent to the nominated Property in recent years, including in 2009 when the town of Cockermouth, adjacent to the north west boundary of the nominated Property, was badly damaged by flooding. This also affected settlements in the Lake District including Keswick, resulting in new flood defences being installed to provide greater protection to buildings and people. Events like the 2009 flood demonstrate that the Outstanding Universal Value of the nominated Property might be affected as a result of a wide range of factors influenced by climate change including:

- **Sea level change** which may result in coastal erosion and storm surges, affecting coastal features and landscape, including coastal rights of way, sea defences and coastal communities generally. Shoreline Management Plans set out the management objectives and the strategic coastal defences for the management of the coastal region. The Plan that covers the 21 miles of Lake District coastline forms part of the 61 miles from St Bees Head to the Scottish Border. The long term plan for the section that covers the nominated Property's coastline between Haverigg and Seascale is to allow natural processes to continue along most of the frontage except where private landowners at Silecroft will be allowed to maintain their defences subject to private funding arrangements. The Plan identifies the expectation that the natural accretion of the dunes will provide protection to much of Haverigg. The Plan also outlines that within the environmentally designated (Site of Special Scientific Interest and Special Area of Conservation) Ravenglass estuary complex, the natural behaviour of Rivers Esk, Mite, and Irt will be allowed to continue, while Ravenglass village will continue to be protected by defences. Ravenglass Roman Fort is also protected as a result of the defences protecting the coastal railway line which passes adjacent to the site. Therefore the Shoreline Management Plan's implementation will maintain the attributes of Outstanding Universal Value found in the coastal region.
- **Extreme weather events** including storms, winds, and floods have the potential to have a significant effect on the nominated Property's attributes. There have been major incidents in recent times, including the floods which affected many areas of the nominated Property in 2009. The damage to public access such as footpaths, transport infrastructure, damage to buildings, particularly in towns and villages, causes disruption to businesses and community life. Damage is also possible to the structure and fabric of historic buildings and to archaeological sites from increased rainfall. Potential impacts on the landscape caused by extreme weather events could include landslips, gully erosion and river re-naturalisation, and loss of veteran trees. Extreme weather events may affect agricultural practices as saturated soil and flooded land result in loss of grazing land, and cause a need for longer periods

of housing livestock, supplementary feeding and associated costs of provision of livestock shelter. More rainfall increases risk of effluent entering water courses and removal of topsoil and nutrients. The recovery time needed after flooding events can cause accelerated soil erosion, and deposition of silt and gravel.

The management of extreme weather events and its effects are wide ranging. The Management Plan provides strategies for management, alongside other statutory plans such as flood risk management plans. Detailed projects such as 'Paths for the Public' and 'Fix the Fells' restore and repair paths and bridges, and increase their future resilience to events such as floods. Flood emergency plans, regular formal inspection and maintenance of listed features, and working with business sectors to raise awareness of risks and adaptive options help to reduce the impact on the historic environment, individual buildings and settlements.

- **Changes in mean temperature** can lead to warmer wetter winters leading to less accessible areas of agricultural land due to wetter ground resulting in damage to land or changing agricultural-practices, increases in pests and diseases particularly those affecting livestock including fly-strike, and infections causing lameness. Warmer, wetter winters are also likely to result in higher lake and river levels leading to flooding risks and the need for better defences of settlements and agricultural land. Greater vegetation growth such as bracken may threaten attributes of Outstanding Universal Value associated with the historic environment. Increases in average annual temperature may result in the increased length of the visitor season due to warmer weather and potentially lead to greater erosion of visitor infrastructure including footpaths. Agriculture is particularly vulnerable to periods of drought as this can affect growth rates, lower crop yields and their quality. It may also increase the stress on livestock, in particular hill breeds. This could affect the economic sustainability of agro-pastoralism within the nominated Property leading to changes of stocking levels, and resulting in the need to buy-in additional feed, impacting on market prices, and leading to the need for supplementary water supply and creation of additional shade.
- **Higher year-round average temperatures and more extreme rainfall patterns** can lead to changes in distribution and balance of flora and fauna, and to changes in habitat composition and condition. They pose risks of some species extinctions (such as montane heath and arctic alpines), peat drying out, and species immigration which may bring opportunities or risks of invasive species. This may affect landscape character and the open nature of the fells for example, as it may result in the tree line moving higher on the fells.

As well as being affected by extreme weather events, historic buildings, many of which are attributes of Outstanding Universal Value, may be affected by climate change in a number of ways. For example, increased dampness and condensation in historic buildings results in increasing damage, costs of maintenance and repair, pressure for intrusive changes risking historic character, and potential health risk for occupants. Soil erosion can increase the likelihood of subsidence, and higher temperatures may increase growth rates of vegetation threatening the fabric of historic features and requiring vegetation management at these sites. Higher temperatures may also lead to new insect pests.

POLLUTION, INCLUDING MINING WASTE POLLUTION

Pollution has the potential to affect the nominated Property in a variety of ways. Lower river flows and low lake and tarn levels will result in concentration of pollutants and, combined with higher water temperatures in summer, lead to impacts on species such as salmon, arctic charr and vendace.

One of the chemicals that impacts on the nominated Property is phosphorus which forms compounds called phosphates. Phosphates enrich the water, with the most visible result being blooms of algae, including the blue-green variety that creates a toxic scum at the edge of lakes. The major sources of phosphates come from the land and agricultural practices, and from sewerage works. Farmers put fertiliser on their fields, and some of that will wash into the lake. Humans use detergents and dishwasher tablets, and human waste too will feed into the lake. Projects such as catchment sensitive farming whereby buildings are often constructed to store manure undercover to help to prevent runoff which carries phosphates, and investments into sewerage works which strip phosphates from the water, help to reduce phosphates leaving the treatment works.

Historic mining within the nominated Property has left a risk of pollution which includes spoil heaps, wash out from ponds, and metal pollution entering watercourses. Mine waste, such as spoil heaps, is a source of sediment, and erosion makes mine waste less stable over time. Climate change could bring more intense rainfall in the future which would also increase erosion of sediment. This leads to higher sedimentation and pollution inputs into rivers and lakes affecting species.

Metal pollution entering watercourses is a point-source issue affecting some watercourses in the Lake District. Newlands Beck and Coledale in the Bassenthwaite and Borrowdale Valley, and Glenridding Beck in the Ullswater Valley are both identified in the Environment Agency's 'Assessment of Metal Mining - Contaminated River Sediments in England and Wales', 2008. The source of pollution is a result of metal mining at Force Crag (lead, zinc and barytes) in the Borrowdale and Bassenthwaite Valley and Greenside Mine (lead) in the Ullswater Valley. Measures have been put in place to deal with these point source pollution issues. For example a pioneering project at Force Crag Mine between the National Trust, Newcastle University and The Coal Authority delivers a mine water treatment scheme which feeds mine water into vertical ponds to remove the pollutants by natural means before allowing water to discharge into Newlands Beck and Coledale Beck.

INVASIVE SPECIES

Invasive non-native species spread causing damage to the environment, economy and health. As such, these threaten many attributes of Outstanding Universal Value. The Lake District's unique freshwater environment is increasingly under threat from invasive non-native species such as Floating Pennywort and Australian Swamp Stonecrop as they choke watercourses preventing recreational use. Invasive species threats are not confined to freshwater as other species can affect human health and prevent visitors using and enjoying of the landscape. For example, giant hogweed contains photosynthetic venom which when touched burns the skin. Japanese Knotweed and Himalayan Balsam can also increase the possibility of flooding. Japanese Knotweed also causes damage to

attributes associated with the built and historic environment by damaging foundations and structures. Invasive non-native species threaten the survival of rare native species such as the White Clawed Crayfish and damage sensitive ecosystems and habitats like freshwaters and wet woodlands, all of which associatively contribute to the Outstanding Universal Value of the nominated Property. A number of projects including the 'check-clean-dry' campaign, and the Bassenthwaite Reflections Heritage Lottery Fund project resulted in massive reductions in Japanese Knotweed and Himalayan Balsam, as these projects seek to remove and manage these invasive species to prevent their spread and damage to the Outstanding Universal Value of the nominated Property.

4.b (iii) NATURAL DISASTERS AND RISK PREPAREDNESS

FLOOD RISK

Water is the most identifiable element of the English Lake District. This brings with it many benefits but also risks that affect the property's attributes. Roughly 10 per cent of the area is directly affected by functional floodplains or areas at high risk of flooding. Whilst flooding cannot always be prevented, its impacts can be reduced through good planning and management, implemented through the Management Plan, and the Local Plan which covers spatial planning issues.

Development, in general and unless mitigated, reduces permeability by sealing the ground which results in increasing run-off that can lead to problems of localised flooding and water pollution. Sustainable drainage systems can provide a solution. The Local Plan ensures adequate mitigation systems are provided and inappropriate development is avoided in areas at greatest risk of flooding. Where new development is necessary in areas at risk of flooding, the aim is to make it safe without increasing flood risk elsewhere.

Flooding is also possible along the coast, as discussed in the previous section. The risk is controlled through Shoreline Management Plans but in places where natural processes are allowed to continue erosion will take place leading to the potential loss of good agricultural land, coastal paths and buildings. Defending the coast against the impact of flooding and erosion will have implications and engineered defence solutions are expensive, can be visually intrusive and may not be suitable in the long term, thereby harming attributes of Outstanding Universal value.

The historic environment, as demonstrated by the 2009 flood in Cumbria and other events elsewhere in the country, can be particularly vulnerable to flood risk as many historic buildings are found in settlements close to rivers. Historic England has undertaken research and published guidance (including 'Flooding and Historic Buildings', April 2015, and 'Assessment of Heritage at Risk from Environmental Threat', November 2013) to respond to flood events that may affect the historic environment in the future. Although historic buildings are in fact very durable and relatively resistant to flooding compared with much modern construction, they can still suffer substantial damage. Older buildings behave differently to modern ones and as a consequence need much more careful attention after flooding. They are often built with more permeable

materials like timber, lime mortars and plasters and soft bricks which will absorb water but need to be able to dry slowly. Repair works need to be considered in relation to how the building is constructed and the materials used.

Lessons learned following the 2009 flood in Cumbria highlighted the importance of inspecting historic buildings affected by flooding, and providing advice to people affected by flood damaged listed buildings in terms of necessary consents, appropriate restoration works, and gaining access to specialist support and guidance. Other protective measures include managing rainfall through the catchment sensitive farming project run by Natural England.

DISEASES AND PESTS (PLANT AND ANIMAL)

Pests and diseases affecting flora and fauna species and habitat condition pose significant risks to the nominated Property's Outstanding Universal Value. A range of factors may be responsible for increases in different pests and species including increases in wet ground and lack of prolonged cold temperatures in warmer wetter winters leading to an increase in new and existing pests and diseases for plants, trees and livestock.

A number of member organisations of the Lake District National Park Partnership have responsibilities to manage risks from diseases and pests, and they are involved in action groups to help protect flora and fauna. For example, the Forestry Commission monitor 'Phytophthora ramorum' (on larch); 'Phytophthora austrocedrae' (on juniper) and 'Chalara fraxinea' (on ash). Through the Cumbria Tree Health Group a partnership approach is agreed for the disease management of larch, juniper and ash in the Lake District.

The 'Cumbria Freshwater Invasive Non-Native Species Initiative' provides coordination and a strategic approach for its constituent groups to control and manage non-native species. The Initiative includes control and monitoring of existing established invasive species; monitoring, mapping and reporting infestations; eradicating existing invasive species where possible, and controlling the spread where eradication is not possible. The Initiative also aims to raise awareness and educate people on the risk and measures which help to reduce the risk. An example of this education and awareness raising is the 'check-clean-dry' campaign which asks users of water bodies to inspect equipment for living organisms, clean, and wash all equipment, and dry all equipment. The Lake District Local Access Forum promotes this campaign as do the various river trusts, often attending events to deliver this message by providing biosecurity cleaning.

Disease in agricultural livestock can affect the Outstanding Universal Value of the nominated Property. This was witnessed in 2001 during the Foot and Mouth disease outbreak where it is estimated approximately 25 per cent of all Herdwicks were lost to the disease and control measures. As a result of this vulnerability the breed association is improving awareness of the benefits of the breed and working with other trusts to increase the distribution of Herdwick sheep across the UK. Diseases can affect the movement of livestock and this subsequently affects agricultural practices and their profitability. Government bodies monitor and collect data from disease surveillance and research, and specific national protocols are in place for active diseases. These include restricting animal movements and swiftly examining and testing stock,

slaughter and safe disposal of infected animals, work to identify the source of the disease, and establishing surveillance zones to look for further disease. Legislation also requires farmers to inform Government bodies of notifiable diseases.

WILDFIRES ON FELLS

Closely linked to effects of climate change, there is an increased likelihood of the frequency of wildfires on the fells during prolonged dry periods. This may affect the productivity of the fell, threaten livestock and therefore affect farm businesses, thus threatening attributes of Outstanding Universal Value, depending on the scale and location of wildfires. The last period of wildfires was in 2011 when fires were triggered on fells nearby Keswick, Ambleside and Staveley. Wildfires may result in ecological effects as some species will be lost from that particular environment, and wildfire also has the potential to result in erosion. Research undertaken by Durham University following a wildfire on Barrow Fell in the Lake District in 2003 considered the hydrological and geomorphological consequences of the event and concluded that soil erosion rates following the burn are elevated, but that large scale severe erosion did not occur and the area recovered well without intervention of active management.

The Cumbria Wildfire Group coordinates measures to reduce the threat of wildfires by assisting others to create fire plans for certain vulnerable sites, procuring firefighting equipment and training partner staff to deal with fires. The Lake District National Park Authority has the ability to impose access restrictions under the Countryside and Rights of Way Act 2000. During the 2011 wildfire period the Lake District National Park Authority having assessed the risk of Lake District sites determined that no access restrictions were necessary. Access restrictions could be required in future if weather conditions lead to prolonged periods of high temperatures and dry weather.

MAN-MADE DISASTERS

The terrorist events of September 11th 2001 and more recent threats have caused all agencies to review emergency planning arrangements. Cumbria Local Resilience Forum consists of all organisations and agencies involved with emergency response in our communities. The Forum have a register of risks which guides, if an emergency occurs, information they publish about what is happening, how the incident is being dealt with and by whom, and how you can help to protect yourself.

There are no major high-risk industrial operations within the nominated Property. However, a nuclear site, Sellafield, is located approximately two kilometres from its boundary, and there is an increasing likelihood of a new nuclear power station adjacent to this site. Sellafield Ltd maintains a robust and multi-faceted emergency response programme to ensure risk preparedness. Therefore, while the likelihood of any disaster is considered to be extremely low, the potential impacts are potentially catastrophic to the Outstanding Universal Value. Furthermore, nuclear disaster could be of a severity that would directly impact upon the population of the Lake District, the region, nation, or even wider.

The Lake District has experienced the effects of nuclear incidents in the past, in October 1957 and May 1986. The 1957 incident was the worst nuclear accident in Great Britain's history, ranked in severity at level five on the seven-point International Nuclear Event

Scale. It took place at the Windscales facility (now known as Sellafield) where there was a release of radioactive contamination that spread across the UK and Europe. This incident was managed by the appropriate managing and regulatory bodies implementing appropriate measures; no one was evacuated from the surrounding area, but there was concern that milk might be dangerously contaminated. In response to this risk, milk from about 500 square kilometres of nearby countryside was destroyed for a month.

The 1986 incident took place at Chernobyl but a combination of weather events means that radionuclides, in particular caesium-137, iodine-131, and strontium-90 dispersed from Chernobyl fell in rain water over the Lake District during an intense downpour. It is estimated that one per cent of the radiation released from the reactor fell on the UK. In an effort to prevent these radionuclides entering the food chain once they had settled on the upland soil, the then Ministry of Agriculture, Fisheries and Food, ordered an immediate restriction on the movement and sale of sheep within the most affected areas – particularly north Wales, south west Scotland, Northern Ireland and the Lake District – where the landscape is predominantly suited to grazing sheep. In total this affected in the region of 9,800 farms across the UK. Livestock had to be monitored to check for levels of radiation before they could enter the food chain, and it was only in 2012 when the final eight farms in the nominated Property had their restrictions lifted.

The UK Government departments and the managing and regulatory bodies of the nuclear industry are able to manage risks from the nuclear industry, and nationally and internationally the nuclear industry is stringently regulated. It is impossible to predict the precise impact of a nuclear disaster specifically upon the Lake District's World Heritage attributes, but in such a scenario it is possible that the impacts would be more severe than issues confined to World Heritage property status.

4.b (iv) RESPONSIBLE VISITATION

CURRENT VISITOR STATUS

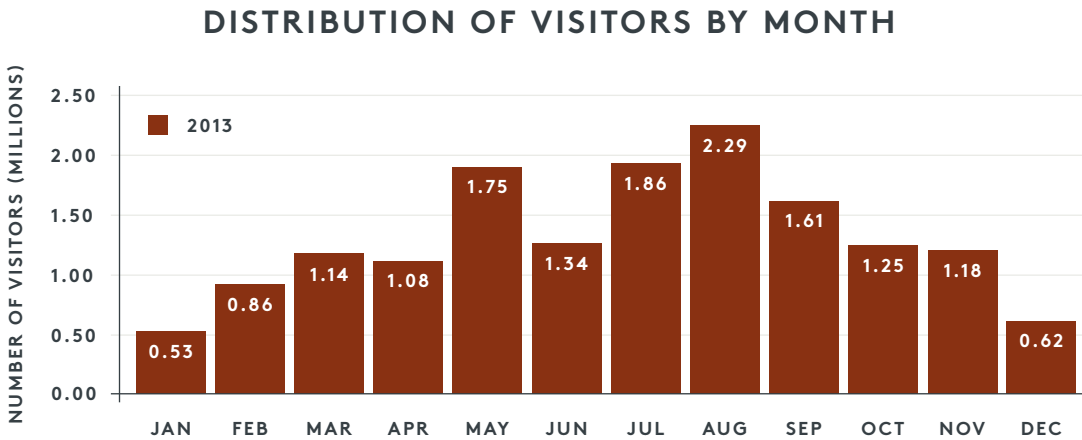
The English Lake District is a popular tourist destination. In 2014 (the last year for which we have complete figures) approximately 15.5 million people visited the nominated Property accounting for 22.65 million visitor days. The number of visitors has been relatively consistent for the past five years (Table 4.14).

The nominated Property's popularity primarily comes from the landscape, so it is unsurprising that the area has traditionally had higher visitor numbers and increased tourism revenue from May to September (see Table 4.15). Visitor numbers also reflect school holiday periods as more families visit during these breaks. Winter is a quieter season but this is changing with the tourism season extending as people are increasingly taking short breaks at any time.

TABLE 4.14 Visitor numbers to the English Lake District (Global Tourism Solutions (UK) Ltd, 2013)

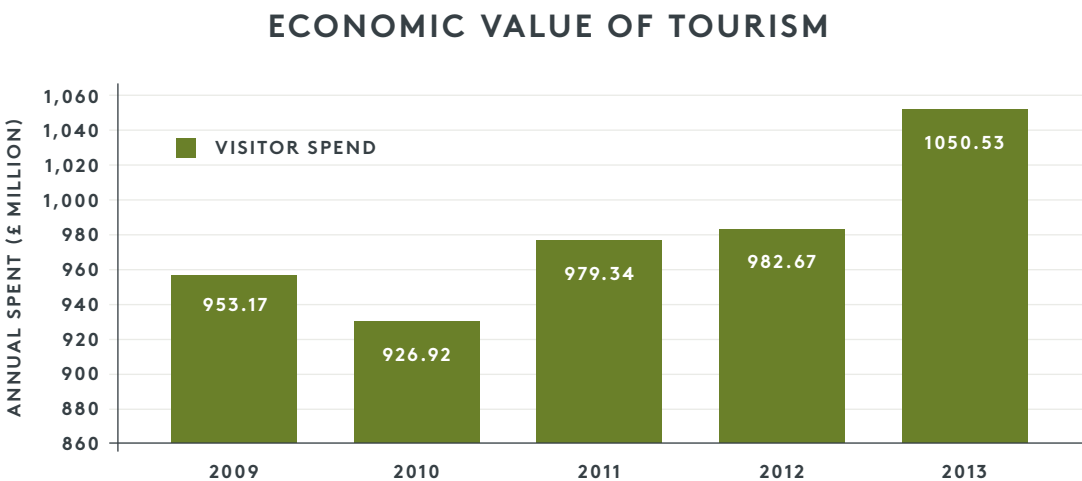
	2009	2010	2011	2012	2013
Visitor numbers (millions)	15.80	15.22	15.59	14.84	15.50

TABLE 4.15 Distribution of visitors to the English Lake District by month (Global Tourism Solutions (UK) Ltd, 2013)



As a result of these significant numbers of visitors, tourism makes a significant contribution to the Lake District economy. The value to the nominated Property's visitor economy passed £1 billion pounds for the first time in 2013 (see Table 4.16). As well as the economic value of the visitor economy, the tourist industry supports in the region of 15,500 full time equivalent jobs.

TABLE 4.16 The economic value of tourism in the English Lake District (Global Tourism Solutions (UK) Ltd, 2013)



There is a good understanding of headline tourist data within the nominated Property, with data being collected annually using a consistent methodology to enable comparisons to be made over time.

There is good knowledge of the distribution of visitors to different areas of the nominated Property, although the data extends beyond its boundary to the entire administrative boundaries of each Local Authority area (Figure 4.10). This means the tourism revenue data do not correspond to data in Table 4.17. Clearly, the data in Table 4.19 below demonstrate that the concentration of tourist activity is focused in the South Lakeland area which includes the Windermere Valley, Coniston Valley, Langdale Valley, and Grasmere, Rydal and Ambleside Valley.

Data is collected annually through a survey of tourist attractions to establish the number of visitors at attractions within and around the nominated Property (Table 4.20 and Figure 4.11).

TABLE 4.17 Visitor expenditure by sector of the visitor economy (Global Tourism Solutions (UK) Ltd, 2013)

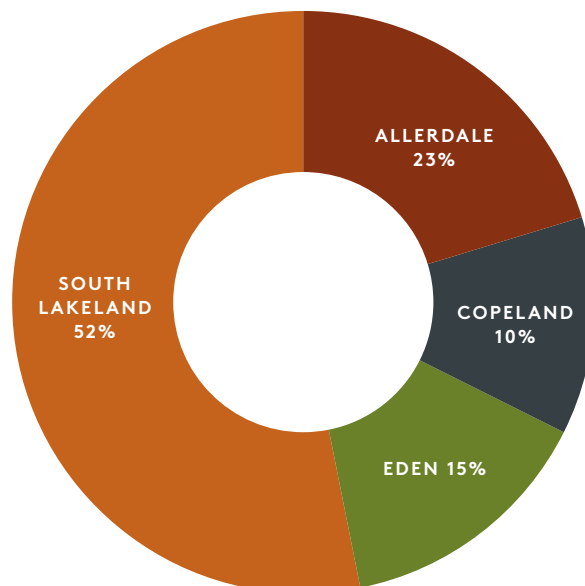
SECTOR/YEAR	2009	2010	2011	2012	2013
Accommodation	180.62	166.49	168.90	192.81	208.38
Food and Drink	202.74	195.16	203.70	192.09	203.28
Recreation	53.37	51.56	53.72	56.85	63.04
Shopping	73.06	69.55	72.22	71.14	76.48
Transport	110.23	107.03	111.71	99.05	102.73
Direct Revenue from sectors	620.02	589.79	610.25	611.93	653.91
VAT	93.00	103.21	122.05	122.39	130.78
Direct Expenditure	713.03	693.01	732.30	734.32	784.69
Indirect Expenditure	240.14	233.91	247.04	248.35	265.84
Total (£ Million)	953.17	926.92	979.34	982.67	1,050.53

TABLE 4.18 Concentrations of activity by District Authority areas (Global Tourism Solutions (UK) Ltd, 2013)

	ALLERDALE	COPELAND	EDEN	SOUTH LAKELAND
Tourist days (£ million)	9.4	4.06	6.49	21.37
Tourist numbers (£ million)	6.64	3.09	4.26	15.63
Tourism revenue (£ million)	380.2	149.1	251.8	1008.0

TABLE 4.19 Share of the market of tourist days between District Authority areas (Global Tourism Solutions (UK) Ltd, 2013)

NUMBER OF TOURIST DAYS SPENT IN EACH DISTRICT AUTHORITY AREA



Whilst not every attraction provides data to this survey, it provides a good proxy for the patterns of use and concentration of activity within the nominated Property. There are no data for the number of visitors on the streets of the main settlements, for occupancy levels or for accommodation capacity. Thus the visitor attractions' information and the information by District Authority area currently form the best available dataset for analyzing activity concentrations.

TABLE 4.20 The most visited attractions in the English Lake District in 2013 (Cumbria Tourism, 2013)

ATTRACTION	NUMBER OF VISITORS IN 2013	NUMBER OF VISITORS IN 2014
Windermere Lake Cruises	1,411,995	1,469,189
Rheged*	399,318	409,660
Ullswater Steamers	337,667	361,410
Brockhole Visitor Centre	223,768	230,676
Ravenglass and Eskdale Railway	190,714	200,169
Whinlatter Forest and Visitor Centre	159,732	184,222
World of Beatrix Potter	147,991	152,214
Grizedale Forest Park	145,406	179,147
Theatre by the Lake	126,056	113,045
Honister Slate Mine	118,365	125,566
Hilltop Farm (home of Beatrix Potter)	103,314	95,073
Sizergh Castle*	84,065	102,860
Wray Castle	71,982	78,922
Lakeland Motor Museum	71,642	79,469
Muncaster Castle	65,109 (2012 figure)	78,684
Dove Cottage (Wordsworth's)	50,028 (2012 figure)	50,145
Beatrix Potter Gallery	37,572	33,356
Blackwell Arts and Crafts	30,053	37,610
Allen Bank	26,745	31,870
Lowther Castle and Gardens	22,435	52,911

*Denotes attractions that are close to but outside the nominated Property's boundary

Not all visitors come to the nominated Property to visit specific attractions, as demonstrated in the 2012 Cumbria Visitor Survey which gives an indication as to the reasons why people visit the nominated Property. Although this survey covers a larger area, it does provide a useful proxy to understand patterns of use. Table 4.22 outlines the most popular reasons.

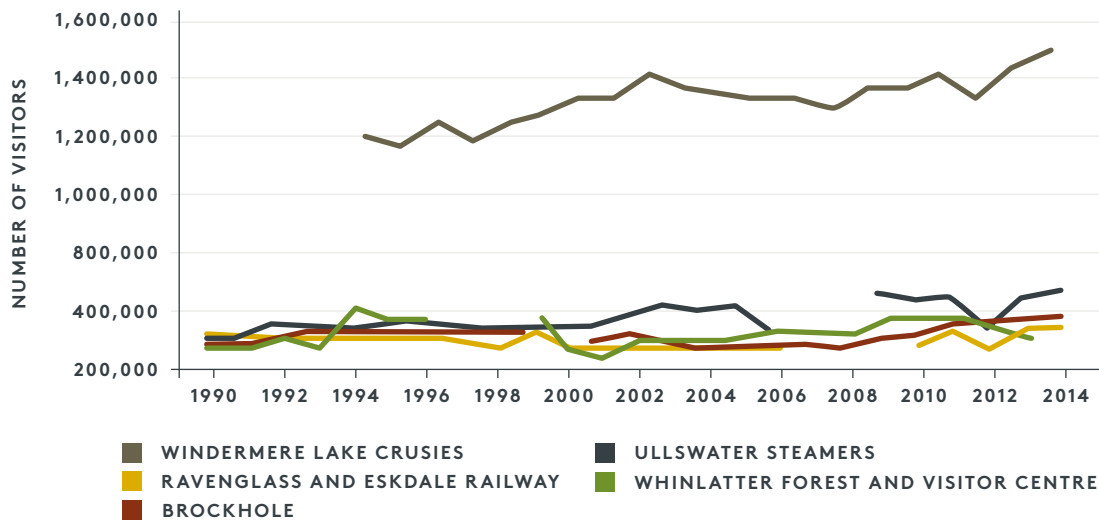
The 2012 Cumbria Visitor Survey also explored the activities undertaken by visitors during their visit, as outlined in Table 4.23. Clearly the number of visitors accessing the countryside and undertaking walks affects the condition of the historic network of footpaths. Erosion is a constant problem. Skilled rangers and volunteers delivering the 'Fix the Fells' footpath repair project ensure the remedial works reduce erosion scars. The project also helps protect the ecology and archaeological heritage of the landscape.

FIGURE 4.10 District boundaries of neighbouring Local Authorities



□ Nominated Property boundary

□ District boundary

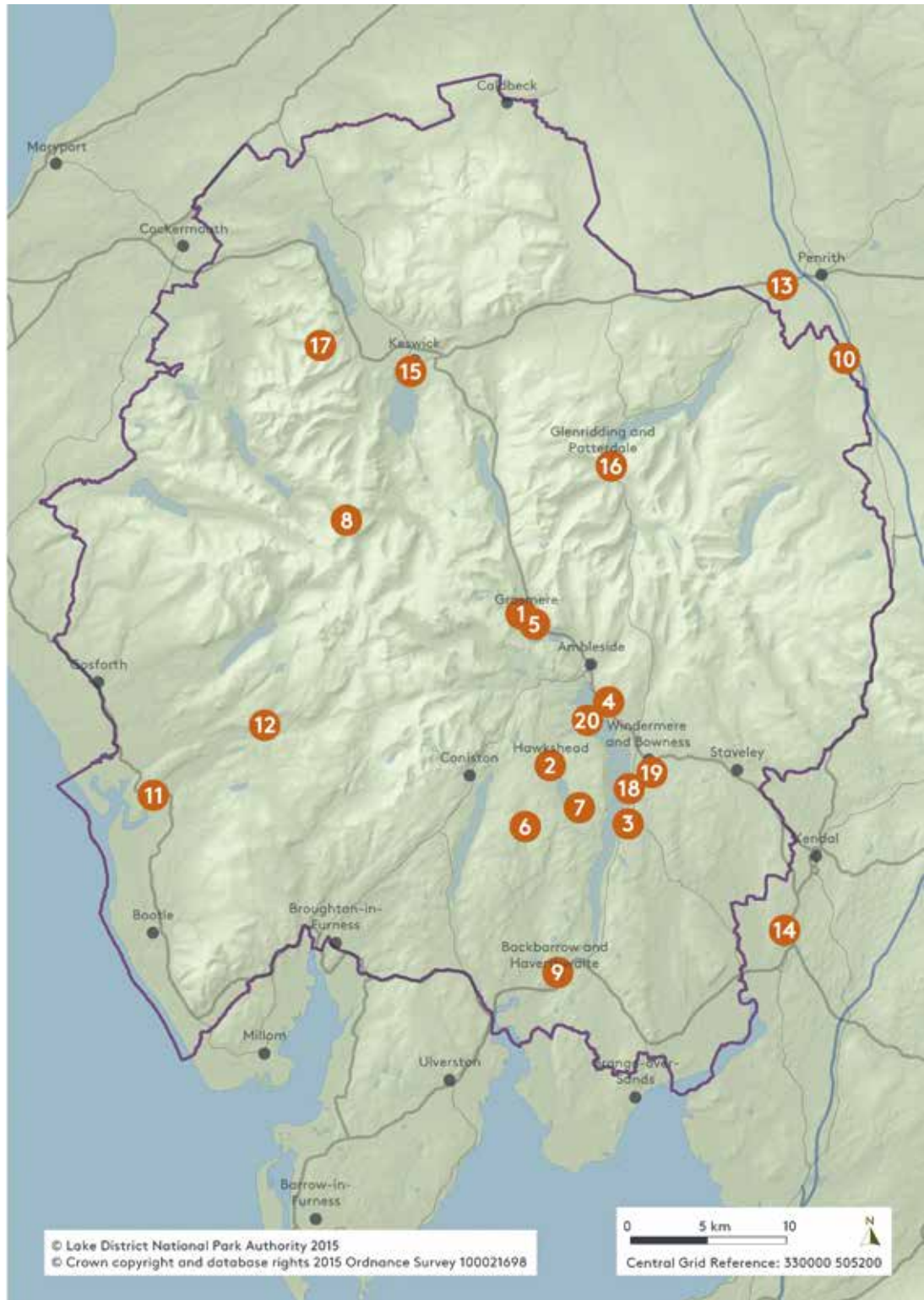
TABLE 4.21 Trends of the number of visits to the five currently most visited attractions in the English Lake District (Cumbria Tourism, 2013)**TOP FIVE VISITOR ATTRACTIONS IN THE ENGLISH LAKE DISTRICT****TABLE 4.22** Top reasons given for visiting Cumbria (QA Research, 2012)
(This survey question allowed for multiples responses to be given)

REASON FOR VISITING CUMBRIA	2009	2012	UK VISITOR	OVERSEAS VISITOR
Because of the physical scenery and landscape of the area	47%	69%	69%	74%
Because of the atmospheric characteristics/ reasons of the area – peaceful, relaxing, beautiful etc	23%	54%	54%	51%
Because we have been before	n/a	44%	46%	21%
To undertake a specific activity	16%	33%	34%	27%
To visit specific places	9%	14%	13%	25%
Visit friends, relatives, second home, free accommodation	14%	12%	11%	21%
Because of a specific event or show	6%	8%	9%	1%

TABLE 4.23 Top activities undertaken by visitors to Cumbria (QA Research, 2012)
(This survey question allowed for multiples responses to be given)

ACTIVITY UNDERTAKEN	2009	2012	UK VISITOR	OVERSEAS VISITOR
Visiting the countryside	46%	68%	66%	84%
Visiting towns / villages	50%	68%	67%	74%
Short walks – up to 2 miles	35%	53%	54%	40%
Shopping	32%	48%	49%	41%
Visiting restaurants	32%	44%	43%	48%
Visiting heritage attractions	28%	42%	40%	63%
Visiting pubs	31%	41%	41%	41%
Long walks – more than 2 miles	29%	36%	36%	34%

FIGURE 4.11 Location of top 20 visitor attractions in the Lake District.



□ Nominated Property boundary

● Visitor Attraction (listed below in alphabetical order)

1 Allan Bank 2 Beatrix Potter Gallery 3 Blackwell Arts and Crafts 4 Brockhole Visitor Centre
5 Dove Cottage (home of Wordsworth) 6 Grizedale Forest Park 7 Hill Top (home of Beatrix Potter)
8 Honister Slate Mine 9 Lakeland Motor Museum 10 Lowther Castle and Gardens 11 Muncaster Castle
12 Ravenglass and Eskdale Railway 13 Rheged 14 Sizergh Castle 15 Theatre by the Lake 16 Ullswater Steamers
17 Whinlatter Forest and Visitor Centre 18 Windermere Lake Cruises 19 World of Beatrix Potter 20 Wray Castle
Visitor Attraction attributes © Cumbria Tourism 2015

PROJECTED VISITOR LEVELS AND CARRYING CAPACITY

The projected levels of visitation resulting from inscription are not expected to increase significantly. The trend data in Table 4.15 highlight that annual visitor numbers have not changed significantly in the past five years, averaging approximately 15.5 million visitors annually. A wide range of factors influence whether visitors come to the Lake District or not, including the level of marketing undertaken, the weather, and major events taking place elsewhere – for example the London Olympics had an impact on visitor numbers in 2012.

Research undertaken for the Department for Media Sport and Culture by Pricewaterhouse Cooper LLP in 2007 suggested that World Heritage status provides “a promotional advantage and a ‘branding effect’ which encourages additional visitors. The evidence indicates that this is likely to have a marginal effect (c. 0-3 per cent) and this will be stronger for less ‘famous’ sites.” (“The Costs and Benefits of World Heritage Site Status in the UK”, Pricewaterhouse Cooper LLP, December 2007). Table 4.24 considers the potential scenarios of the various percentage increases which might happen if the site is inscribed.

TABLE 4.24: Scenarios for projected levels of visitation resulting from World Heritage inscription

Note: Annual visitor numbers at the nominated Property have been at a similar level as the three per cent increase scenario within the last five years, demonstrating that inscription of the English Lake District will not exceed the carrying capacity of the site.

NO GROWTH (0%)	1% INCREASE	2% INCREASE	3% INCREASE
15.40 million	15.55 million	15.71 million	15.86 million

Research undertaken by Rebanks Consulting Ltd in 2009, (“Is there opportunity for economic gain?”) reviewed existing research including the Pricewaterhouse Coopers LLP (“The Costs and Benefits of World Heritage Site Status in the UK”) to determine if becoming a World Heritage Site would result in economic gains.

The research supports Pricewaterhouse Cooper research, which highlighted the fact that the size, fame and location of the site pre-inscription makes a significant difference to its World Heritage Site impact. However, Rebanks noted a “key aspiration amongst potential World Heritage Sites, particularly those that are established tourism destinations is to use World Heritage Status to attract not more visitors but ‘higher value’ visitors. Tourism destinations with millions of visitors pre-World Heritage Site may see little or no additional footfall, but might focus their World Heritage Site efforts on changing visitor profile to achieve small but economically valuable changes to the visitor profile” (35-36). He goes on to say:

“In summary World Heritage Status is, as PwC state, an opportunity to use the process and brand as a catalyst for implementing change. Our research from across the world also strongly supports another finding of the Pricewaterhouse Cooper study, that the motivations for World Heritage Site status are critical”. As such, an established tourism destination like the Lake District might expect a negligible impact on overall visitor numbers as a result of inscription on the World Heritage List, but the shift in type of visitors attracted to the property resulting from World Heritage inscription may lead to economic benefits.

It is impossible to identify accurately the carrying capacity of the nominated Property because of its size. The distribution of visitors is not even across the whole area – more tourists visit the central lakes than the areas in the west, nor is the distribution of visitor infrastructure and facilities.

Carrying capacity also assumes that all the social, economic, and ecological systems within a site are stable and predictable. This is clearly not the case within the nominated Property; it is a dynamic and complex place with many interdependencies. Carrying capacity also assumes a level of control of entries into a destination, which again is not possible or practical for the nominated Property. Given these factors, and critique of the concept by many practitioners it is not appropriate to establish a carrying capacity for the property. Monitoring, in its widest sense, through the indicators established in Section 6(a) will determine if the impact of visitation is harming attributes of Outstanding Universal Value, but this will need to take account also of the many interdependencies of the Lake District.

DESIRED CONDITIONS FOR FUTURE VISITATION

Key trends illustrated by the figures show that total visitor numbers have remained relatively even for the past five years averaging between 15 and 15.5 million. The proportion of overnight visitors is increasing relative to the total number of visitors, and these overnight visitors contribute more to the total visitor spend than day visitors. Relative to the rest of the UK there has not been a significant increase in international visitors, but there is evidence of a growth in out-of-season markets, including short breaks and activity based holidays. In this context it is considered that World Heritage status might assist the promotion of sustainable out-of-season visiting particularly by special interest tourists, including international visitors, which helps to sustain local employment opportunities throughout the year – in line with policies of the Management Plan.

Chapter 5(i) outlines the techniques of the key partner organisations to promote the Outstanding Universal Value of the nominated Property to visitors. This includes media campaigns and publications, exhibitions such as 'Herdwick: A portrait of Lakeland' and special events such as the traditional shows and shepherds meets. Chapter 5(h) also describes the vast range of types of visitor amenities available within the nominated Property to enable visitors to access to appreciate and understand its Outstanding Universal Value. Strategy VE1 of the Management Plan essentially describes the vision for the visitor experience for the nominated Property "**Ensure that every visitor has the best experience that we can offer**".

The Management Plan recognises that there are established pressures on the nominated Property particularly from visitors given the annual numbers visiting each year. These pressures can be wide ranging, falling into a number of categories:

VISITOR PRESSURE ON LOCAL COMMUNITIES

Large numbers of visitors bring many benefits to local communities, including local service provision and infrastructure, but they can also have adverse implications which need to be actively managed. Demand on services and infrastructure can cause

congestion and prevent local communities being able to access services. There can also be tensions in the type of goods and services available as in some settlements these are often aimed at a visitor audience at the expense of everyday needs for local communities. Local communities experience pressures relating to the availability of housing as described in section 4.b(i) – Development Pressures, due to high numbers of holiday homes and second homes in some settlements. These visitor pressures can affect local culture and reinforce the decline of rural communities and rural isolation.

PHYSICAL VISITOR IMPACTS ON THE LANDSCAPE

Visitor pressure is apparent in erosion of some sensitive landscapes including upland paths and lakeshores. There are well-developed partnerships which seek to manage these impacts as previously mentioned including the 'Fix the Fells' project. The 'Lake District National Park Landscape Character Assessment and Guidelines', 2008, provides a useful framework for making decisions.

TRAFFIC AND TRANSPORT

Traffic and transport is a major issue in the nominated Property. The majority of visitors to Cumbria have historically arrived and moved around by private vehicle such as cars or motorbikes and continue to do so, as shown by Tables 4.25 and 4.26. These data serve as a useful proxy for traffic and travel within the nominated Property.

The large numbers of visitors travelling to and around the Lake District by car, and the popularity of car-based sightseeing, particularly during the summer season, creates difficulties for local communities travelling around the nominated Property which adds to rural isolation.

TABLE 4.25 Main mode of transport to get to Cumbria (QA Research, 2012)
(This survey question allowed for multiples responses to be given)

	1996	2002	2006	2009	2012
Car, van, motorbike, motor home	90%	83%	85%	84%	82%
Bus, coach service	5%	4%	3%	3%	5%
Coach tour	-	-	1%	3%	2%
Bicycle	-	-	0%	0%	1%
Train	5%	6%	5%	4%	5%
Walked	-	-	1%	0%	0%
Aeroplane	-	-	3%	4%	3%
Boat, ferry	-	-	0%	1%	1%
Other	-	3%	1%	0%	2%

Public transport services for local communities are limited due to the size of the local resident population and rural nature of the nominated Property. Where public transport services do exist, they tend to be focussed towards visitor needs (given the larger number of visitors in comparison to local residents). For example, lake-based transport provides a crucial link in the sustainable transport network for visitors and but is also a means of travel to work and for transport of goods.

There is a significant amount of road-based freight transport both within and on the boundaries of the nominated Property, which has the potential to lead to adverse impacts and could compromise some of the Lake District's attributes of Outstanding Universal Value.

TABLE 4.26 Main mode of transport to get around Cumbria (QA Research, 2012)
(This survey question allowed for multiples responses to be given)

	1996	2002	2006	2009	2012
Car, van, motorbike, motor home	86%	77%	80%	77%	73%
Bus, coach service	4%	5%	4%	4%	6%
Coach tour	2%	4%	1%	2%	2%
Bicycle	2%	1%	2%	1%	2%
Train	6%	1%	2%	1%	1%
Walked	24%	11%	11%	13%	15%
Boat, ferry	2%	1%	0%	0%	0%
Other	1%	3%	0%	0%	1%

CAR PARKING

Parking provision in the nominated Property is a mix of pay-and-display, honesty box and free parking space, owned and operated by public and private bodies. There are over 100 car parks across the site, some with provision for larger vehicles such as camper vans and coaches and facilities including toilets. There is also on-street parking, and road-side parking, formal or otherwise, both in and out of settlements.

This mix means there is a fragmented approach to parking across the nominated Property, for example in parking charges and enforcement, and significant differences in the quality of parking provision and ancillary facilities. The influx of tourists, especially in school holidays, means that demand for parking sometimes outstrips supply. The geography of the Lake District also means that, at peak periods, some areas experience levels of road-side parking that can disrupt the day-to-day lives of residents and local businesses.

The availability of parking influences people's choices about destinations and is, therefore, an essential tool in traffic management. Parking provision also provides a sense of arrival at a destination.

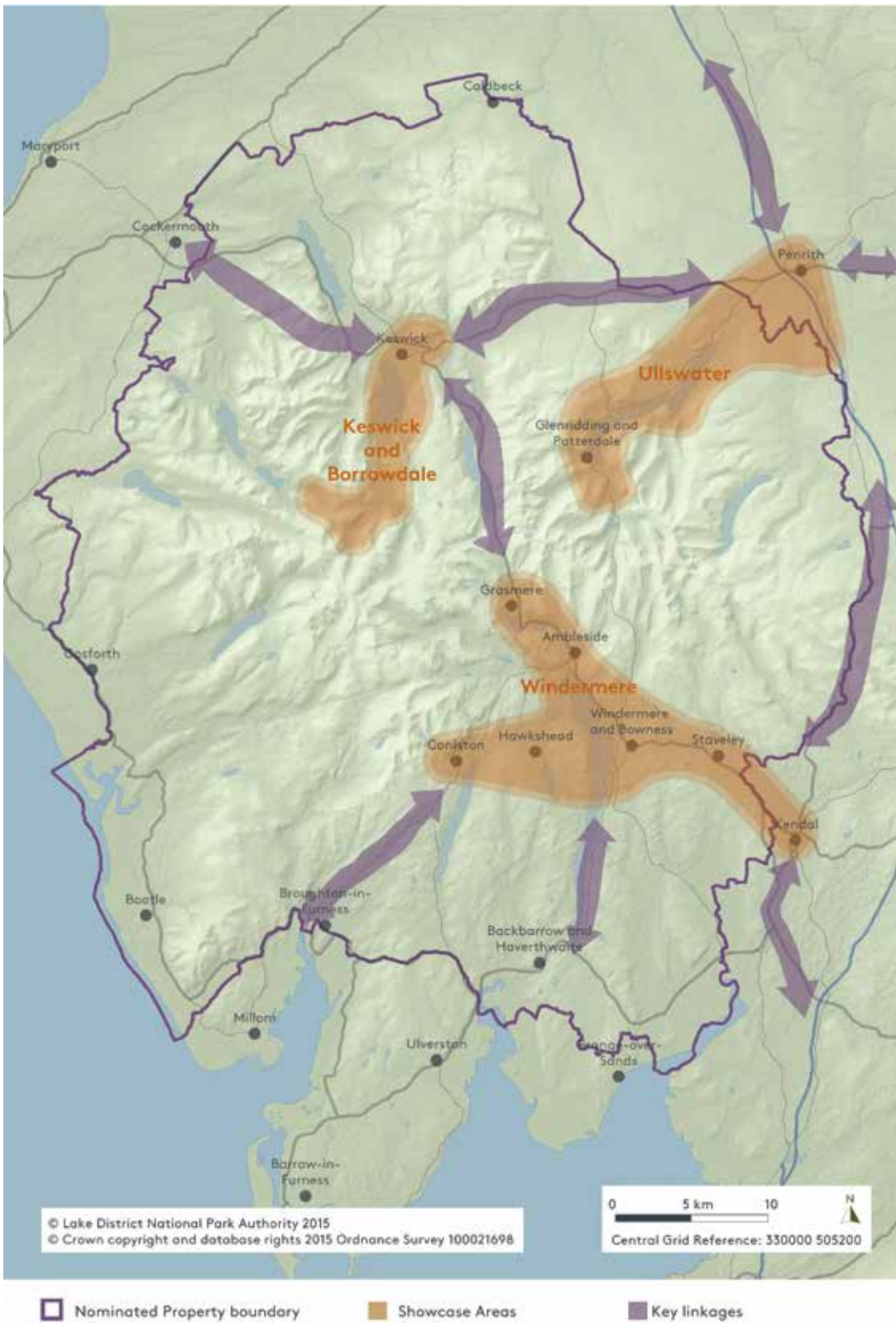
VISITOR PRESSURE ON WILDLIFE AND HABITATS

The effects of tourism and recreation on wildlife are many and varied. In general, recreational impacts on wildlife can consist of: trampling, which causes floristic changes, vegetation loss, soil compaction and erosion; eutrophication, which leads to localised proliferation of weeds and alters the soil; and disturbance, which causes animal 'fight or flight' behaviours, worrying, and site abandonment.

VISITOR MANAGEMENT PLAN

The approach to the management of visitors and visitor pressures within the nominated Property forms part of the Management Plan (Volume 4 of this Nomination), and this is

FIGURE 4.12 English Lake District 'Showcase Areas'



supported by planning policies of the Lake District Local Plan. The Management Plan does not seek to increase the number of visitors, but it does seek to change the visitor profile by encouraging more overnight stays so visitors stay longer, and to encourage visitors throughout the year. The Management Plan seeks to influence visitor behaviour by encouraging responsible visiting to ensure their visit is not causing harm to the environment or local community.

The Management Plan also identifies three 'Showcase Areas' that have had particular regard to the implications of high visitor numbers in some areas (Figure 4.12). The three 'Showcase Areas' offer particular opportunities not only to see and experience the Special Qualities of the Lake District, but they also offer the greatest opportunities to make it easy and attractive for visitors to move through these areas without being reliant upon having their own car.

These 'Showcase Areas' offer a range of accommodation types – key to the strategy of increasing the average length of visitor stays. Whilst the three areas are amongst the easiest areas of the Lake District to access from elsewhere in the UK, including its international airports, the Plan is confident that in addition to enhancing movement within these areas, travel to, from and between them is capable of significant improvements.

By focusing on these areas in this way the Plan provides a cohesive and holistic approach to managing visitor demands, expectations and pressures in ways that will sustain and enhance the Outstanding Universal Value of the Lake District. It is important to remember that visitors have also shaped the cultural landscape over time, and the Plan seeks to renew their commitment to stewardship of this important landscape. The 'Responsible visiting' strategy can achieve this. It is widely recognised that operators and businesses must work within environmental and social limits of the present to ensure ongoing economic benefits now and in the future.

A full discussion of the policies relating to tourism and visitation is contained in Section 5.i of this nomination dossier.

4.b(v) NUMBER OF INHABITANTS WITHIN THE PROPERTY AND THE BUFFER ZONE

Estimated population located within:

The area of the Nominated Property 40,800

Buffer Zone Not applicable

Total 40,800

Year 2011 (national census)