

Wild Ennerdale



Stewardship Plan Maps – 2006



Wild Ennerdale is very grateful for the funding and support of English Nature





Wild ennerdale boundary

A.Location - Cumbria

Scale 1:400000



The Ennerdale Valley is located in North West Cumbria within the Lake District National Park. The valley runs west to east with the principal access points from the west. The valley lies within the Lake District National Park Authority's "Quiet Western Valley's" designation, English Nature's "Cumbria Fells and Dales Natural Area" and the Countryside Agency's "Cumbria High Fells Character Area."



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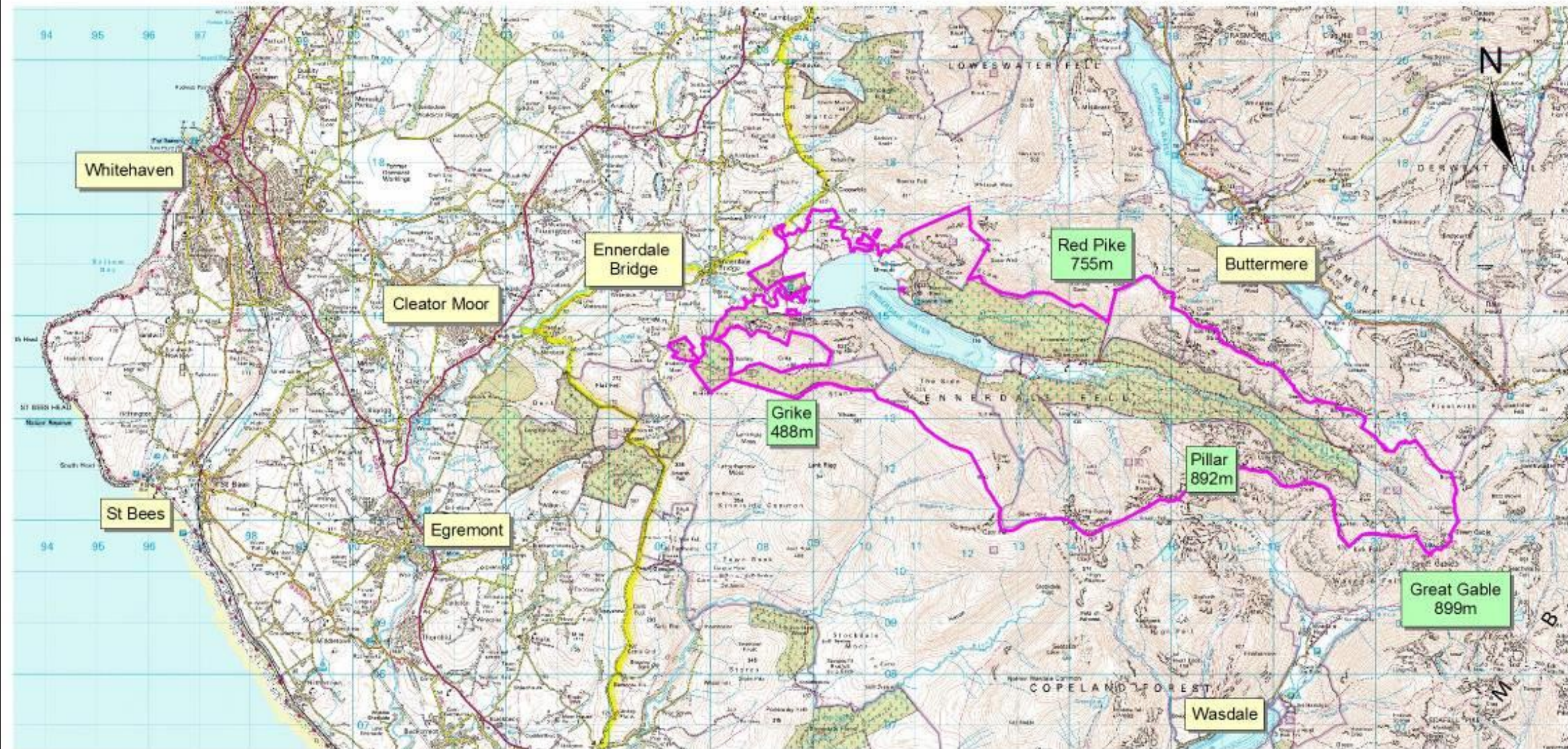
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Wild ennerdale boundary

B. Location - West Cumbria

Scale 1:75000



This map demonstrates the close proximity of Ennerdale to the larger urban coastal strip of West Cumbria. The neighbouring valleys of Buttermere and Wasdale lie to the north and south respectively. Transport links are relatively poor with most people accessing Ennerdale from the west. The Coast to Coast walking route does bring a significant number of visitors to the valley on foot from St Bees.

Wild Ennerdale



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C.Ownership

Scale 1:40000

Ownership

	Forestry Commission		Private
	National Trust		United Utilities
			Unknown

Whilst owned by the Forestry Commission, the eastern valley slopes and peaks above the forest boundary fence are leased to and managed by The National Trust and its tenants

Ennerdale is unusual in the Lake District in enjoying a simple ownership structure where three organisations with similar broad objectives own the majority of the valley.

The distribution of land ownership in the valley has been a significant contributor to the current distribution of habitats and processes operating in the valley. The boundaries between land owners have been defined by fences and walls which have often created stark contrasts between different land uses such as forestry and agriculture.

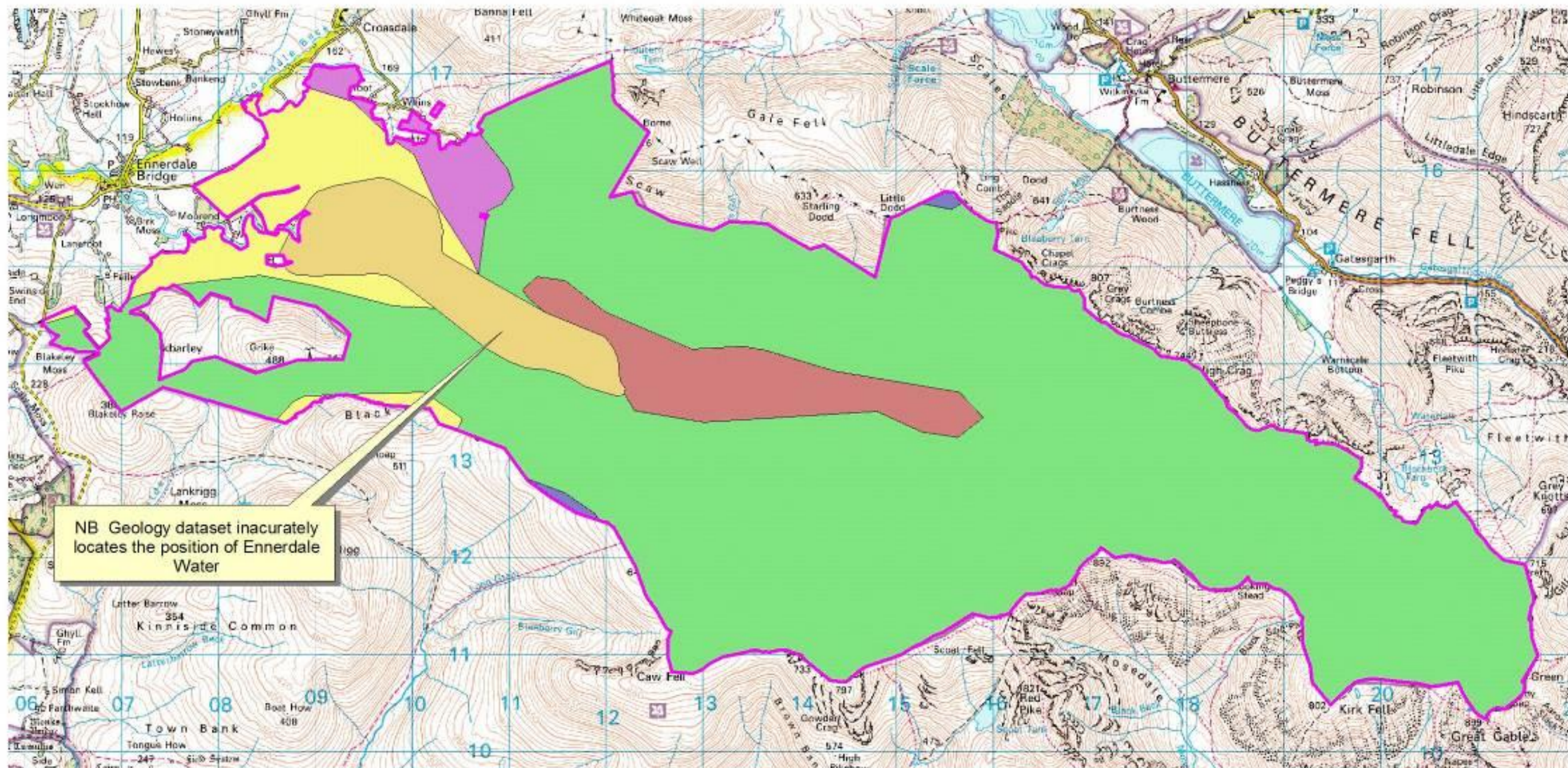


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D.Drift Geology

Scale 1:40000



Drift geology

- | | | | |
|--|--|--|-----------------|
| | Clay, silt and sand | | Peat |
| | Composite of several solid rock lithologies. | | Sand and gravel |
| | Diamicton | | Unknown |

Wild Ennerdale

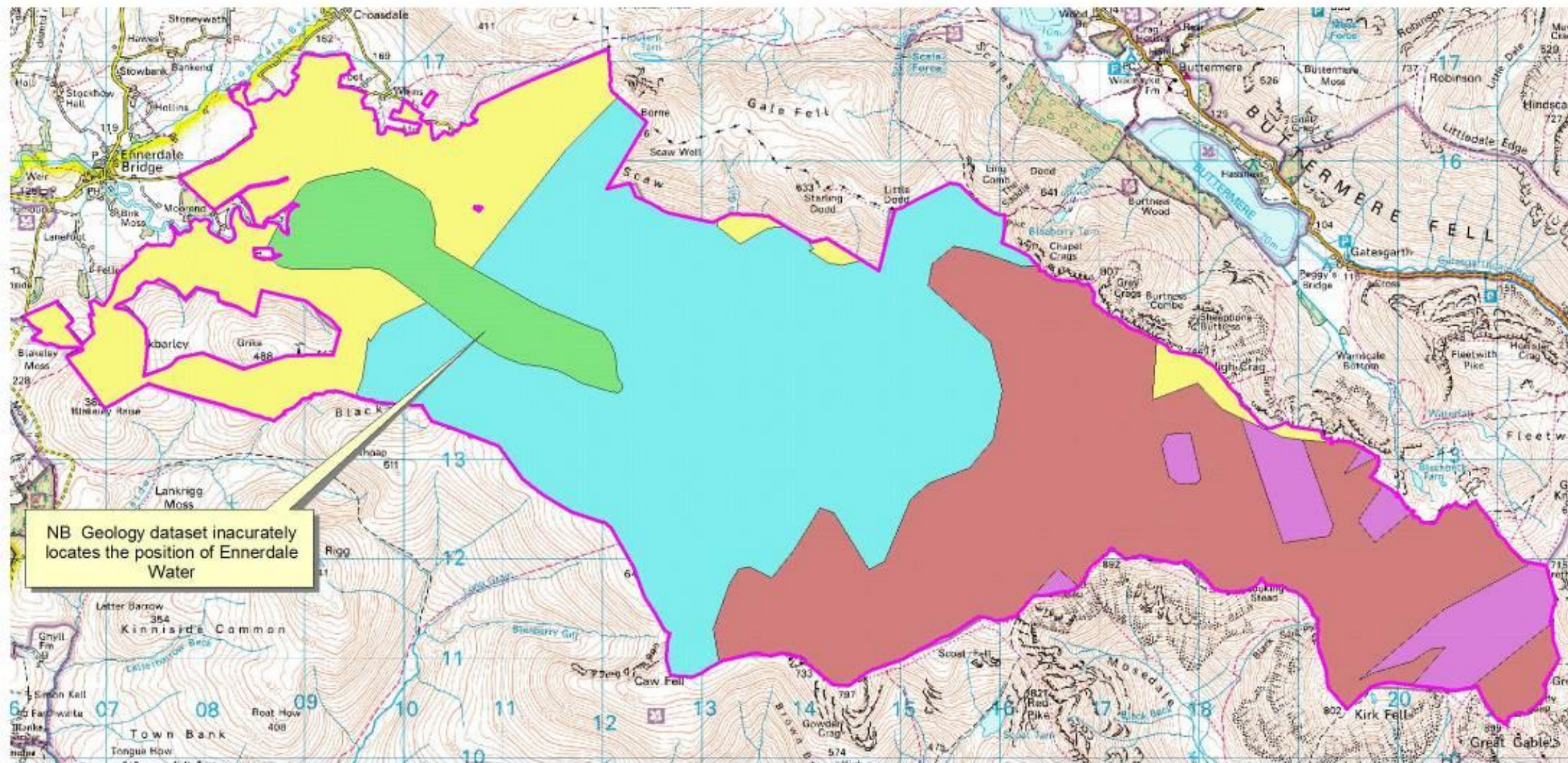


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E. Solid Geology

Scale 1:40000



Wild Ennerdale boundary

Solid Geology

Andesitic lava and tuff, undifferentiated

Granite, syenite, granophyre and allied types

Llanvirn and Arenig

Open Water

Tuff, undifferentiated, mainly andesitic

Wild Ennerdale

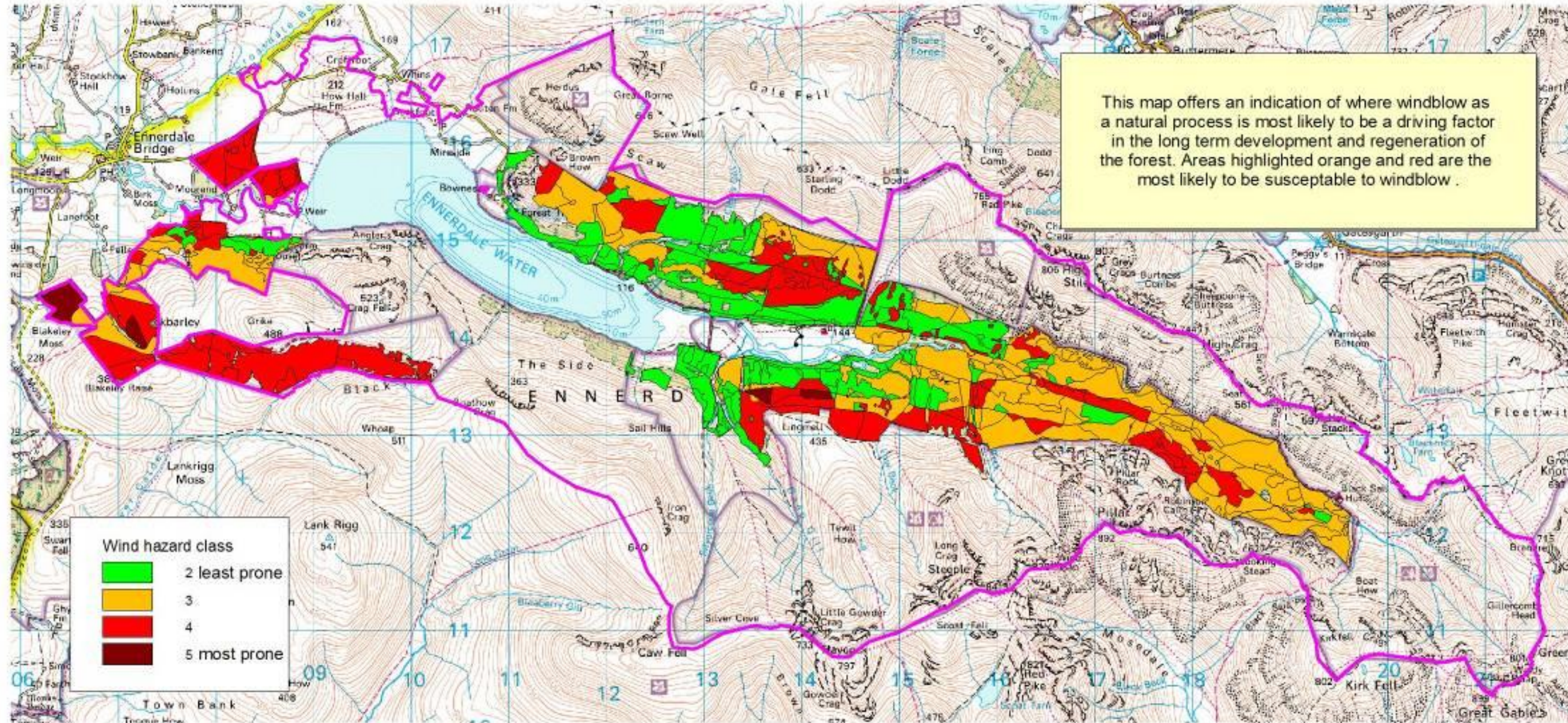


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F.Wind Hazard Class

Scale 1:40000



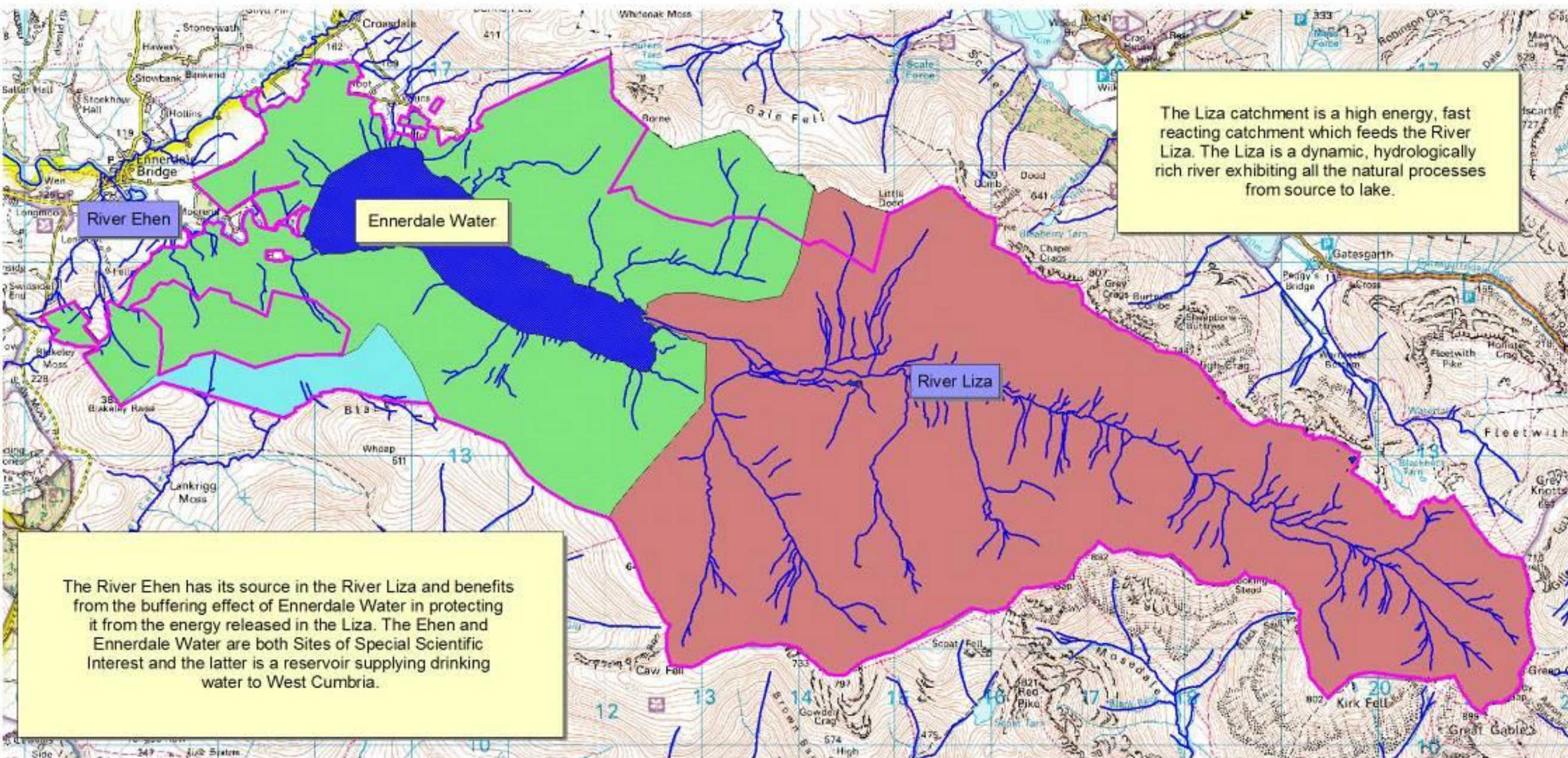
This map illustrates the predicted windfirmness of the Forestry Commission's forests using an established system known as Wind Hazard Class. In summary, the lower the wind hazard class the taller trees can grow before they become susceptible to being blown over by strong winds. The map shows a distribution pattern with the more exposed, windier poor soils of the extreme eastern and western ends of the valley having higher wind hazard class, whilst the better, more sheltered soils of the valley floor and central valley, are less prone to wind blow.



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Scale 1:40000



Wild Ennerdale



THE NATIONAL TRUST



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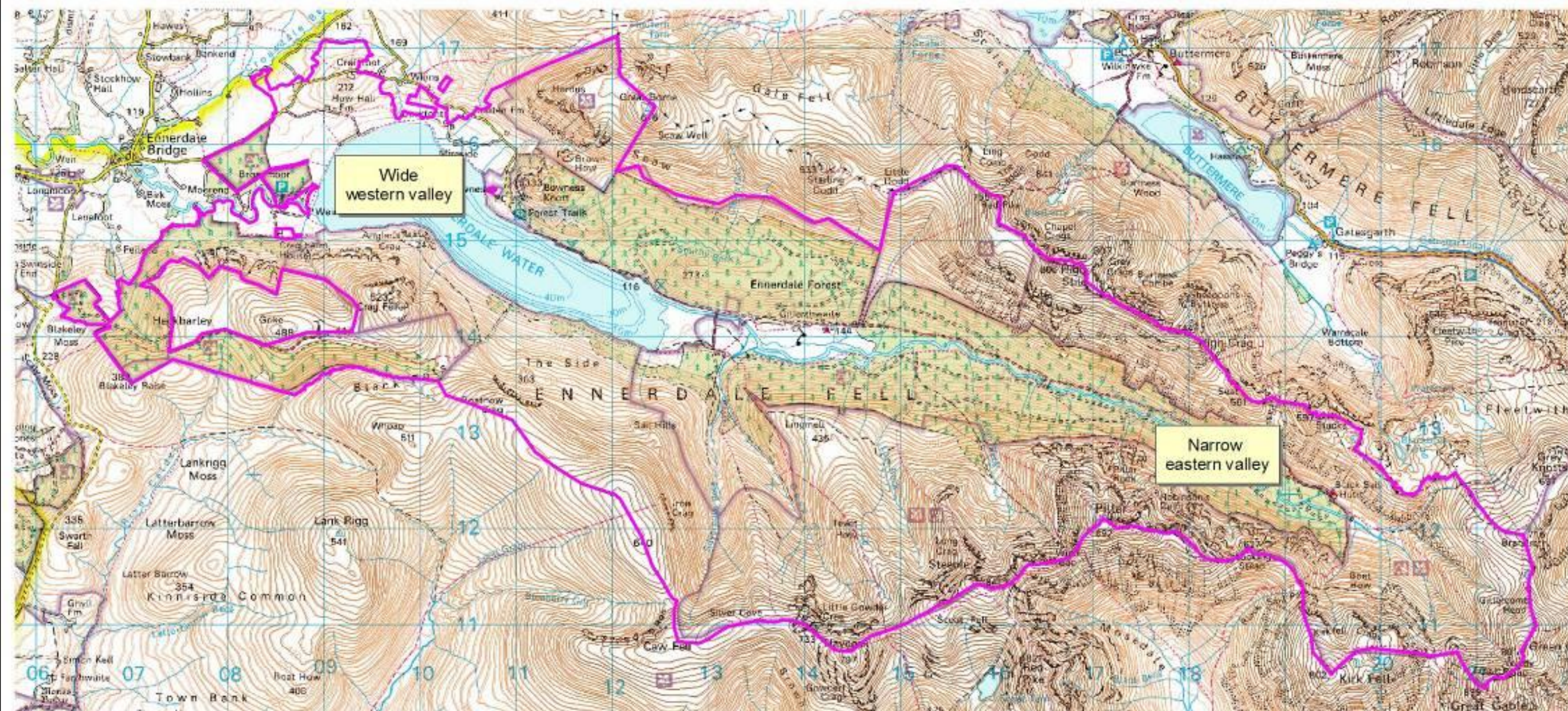
The Wild Ennerdale partners have been working closely with Environment Agency staff and will look to develop the Wild Ennerdale Stewardship Plan to meet the requirements of the European Union Water Framework Directive.

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H.Landform

Scale 1:40000



The Ennerdale Valley is a topographically rich landscape with a narrowing valley bottom and a ridge line which increases in altitude from west to east. In addition to the main valley, a number of smaller side valleys also feature. The eastern valley was shaped by a glacier which formed on the crags of Great Gable (to the east) and Kirk Fell (to the south), flowing west at least as far as Black Sail. The glacial moraines that were left have been described "as the most complete set of moraines to be found in the district" (Ward 1873) & "remarkable" (Sissons, 1980). Sissons assigned the moraines to the Younger Dryas period (circa 10,700 BC) and estimated that the glacier had an area of 1.28km².

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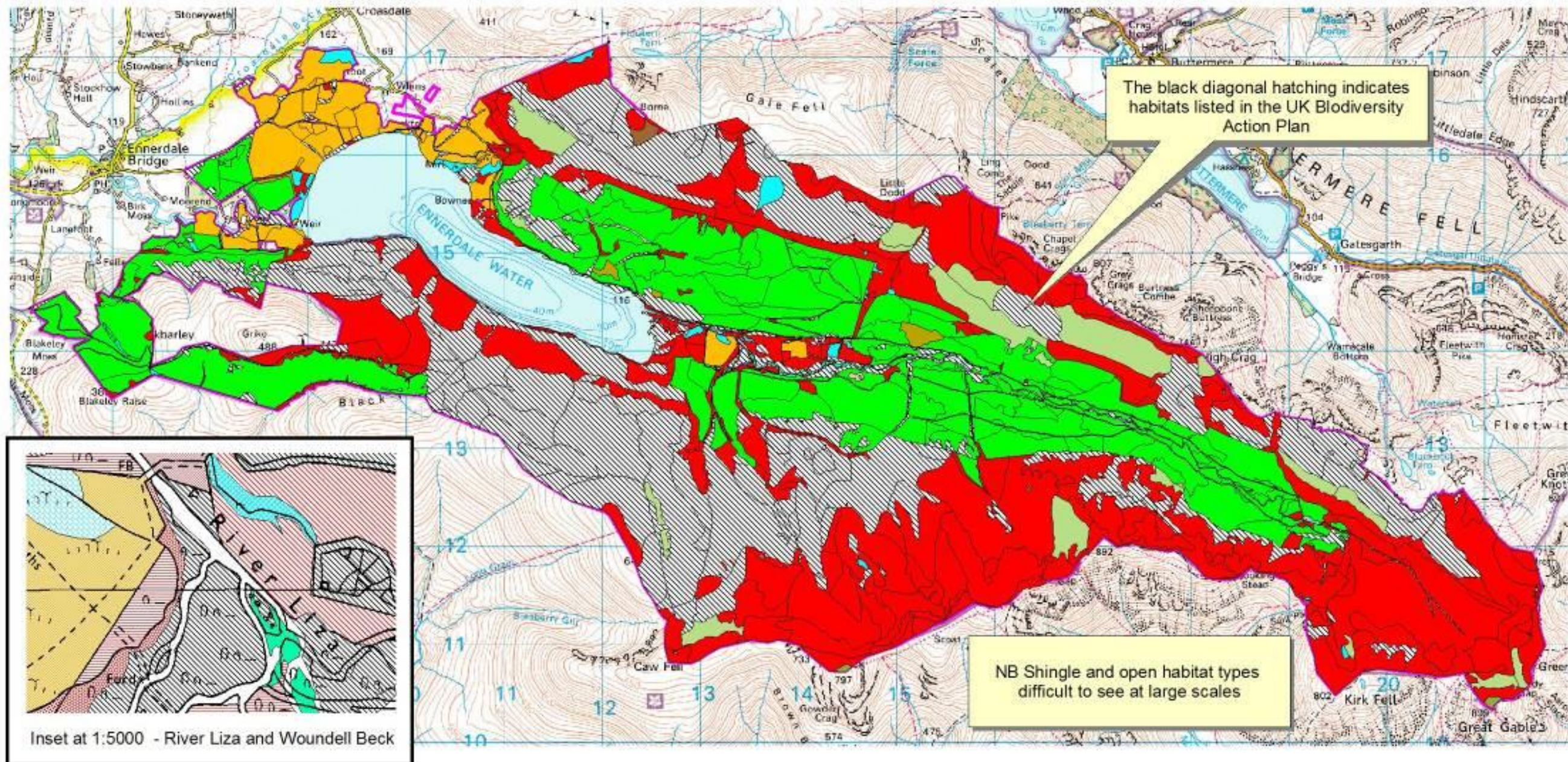


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This map is based on work carried out over three years from 2000 to 2004. The full data set describes 71 different habitats and is shown in the full valley view grouped by broad National Vegetation Classification (NVC) habitat with an inset showing the level of detail that is available. This dataset provides an important survey baseline against which future changes in the valley can be monitored.

I. Current Vegetation

Scale 1:40000



UK Bap Habitats

UK Bap Habitat

NVC Habitat Groups

conifer forest

heath

mesotrophic grassland

mire and bog

native woodland

recomitrium talus

open habitat

open water

scree

shingle

swamp

upland grassland

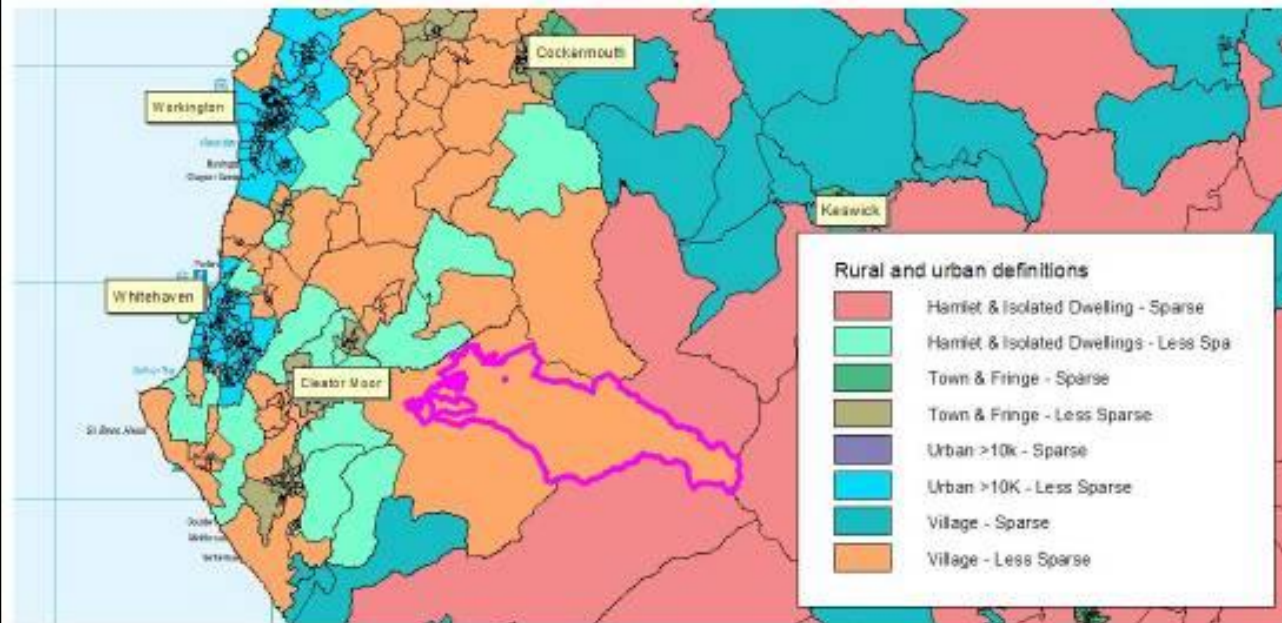
Wild Ennerdale



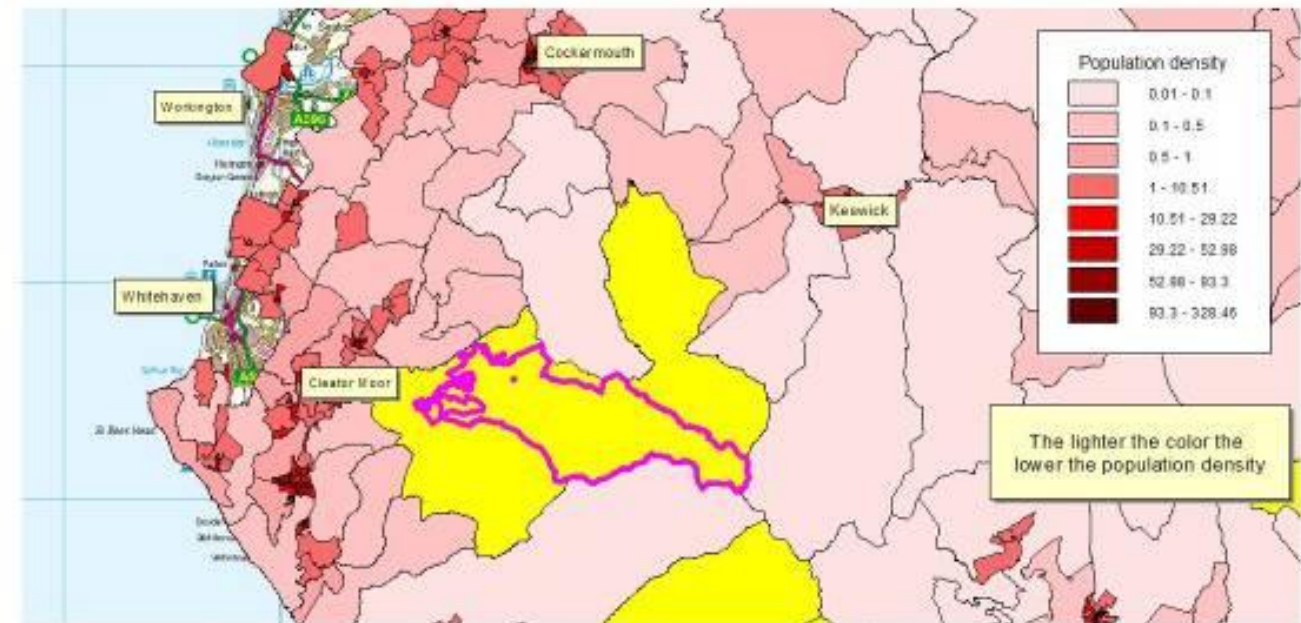
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J. Social and Economic Context

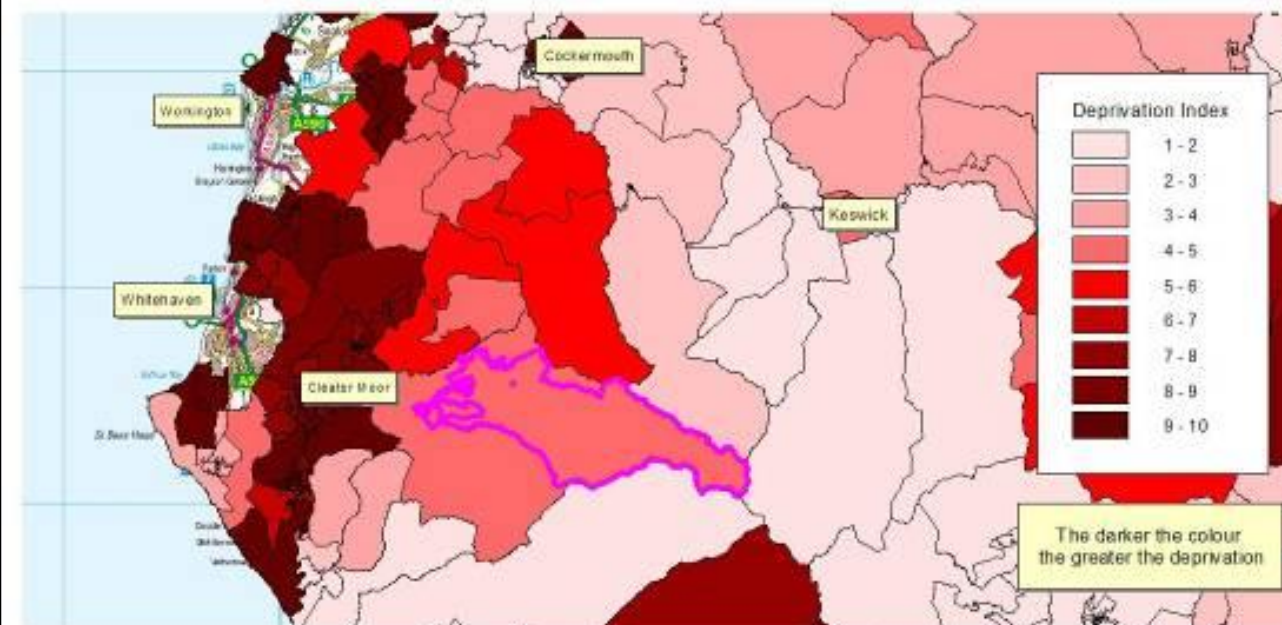
Scale 1:300000



This map shows Wild Ennerdale in the context of the definitions by ward used in the Index of Multiple Deprivation (IMD) dataset.



This map illustrates IMD data on population density (people per ha) by ward. The yellow areas identify the top ten wards with the lowest population density in North West England. This data illustrates the valleys character as a remote place offering real opportunities for peace and solitude.



This map shows the IMD data for deprivation by comparing the deprivation index of each ward against all the wards of similar definition as shown in the map above. The map shows that the local communities to the west (who mostly access and benefit from the valley) are amongst the most deprived in North West England. Those more affluent wards to the east and south do not have direct access to the valley due to the mountainous steep terrain.



This data behind the maps was produced by TEP
- The Environment Partnership, Warrington,
Tel 01925 844032.

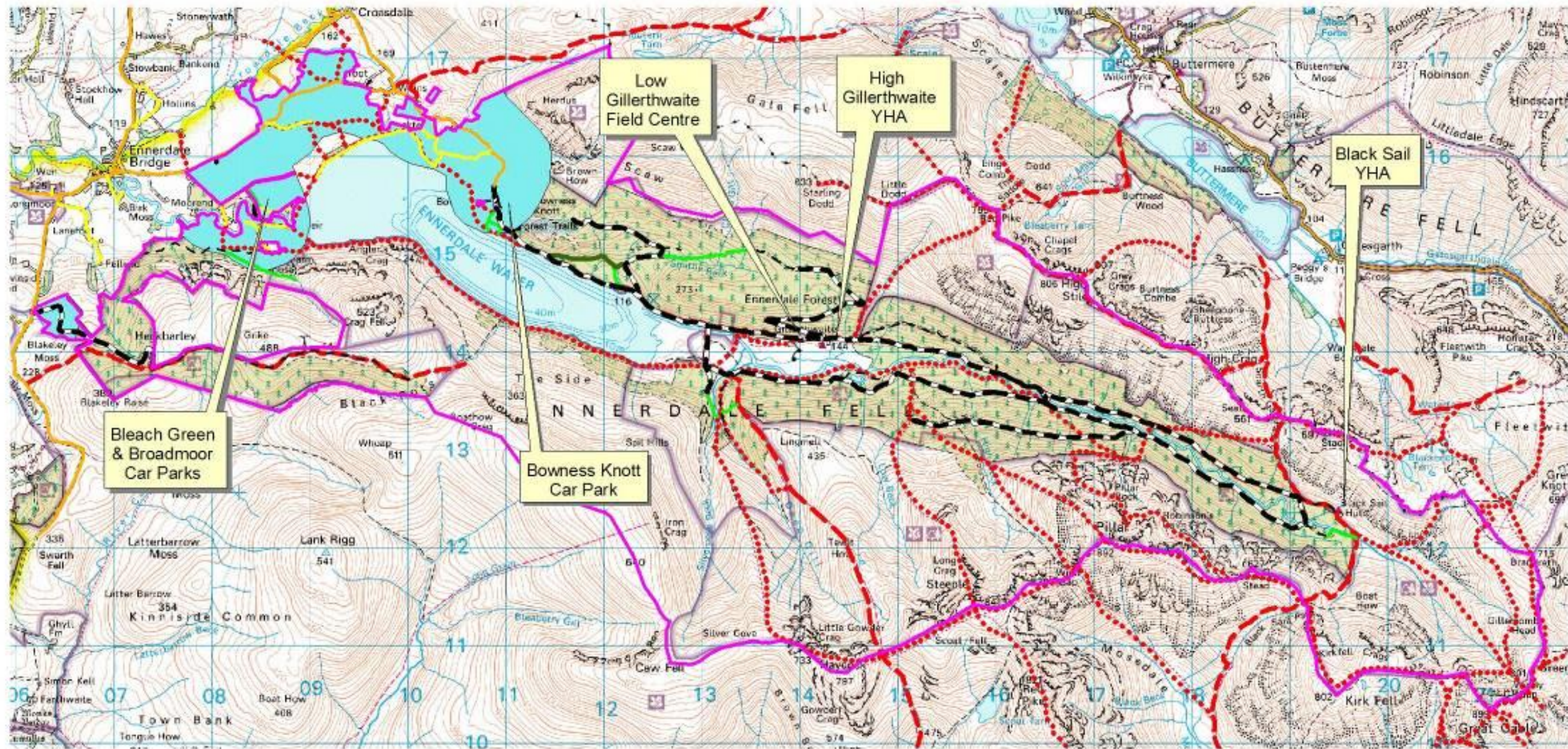
IMD Data Source : ODPM 2004



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K.Recreation & Access

Scale 1:40000



Recreational use is concentrated along the northern and western shores of Ennerdale Water, linked to pedestrian access & car parking. The route of the "Coast to Coast" national walking trail draws high usage in summer along a linear path from Ennerdale Bridge to Black Sail and over the watershed to Honister. Outside of these areas the circular route around the lakeshore is very popular. In general, visitor numbers reduce significantly the further east and south you travel. There are many areas within the valley where, even on the busiest of bank holidays, it is possible to be alone for many hours at a time.

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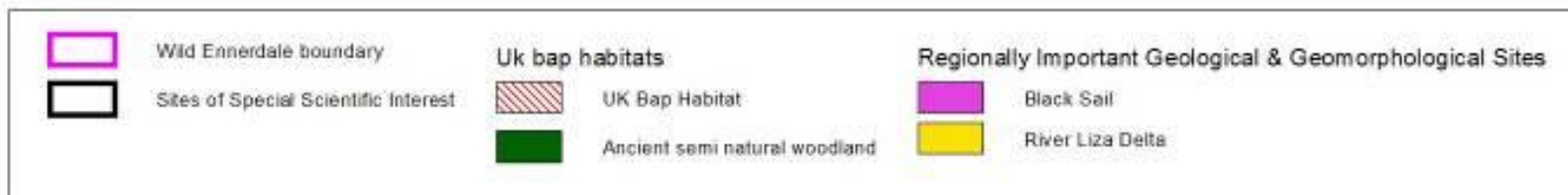
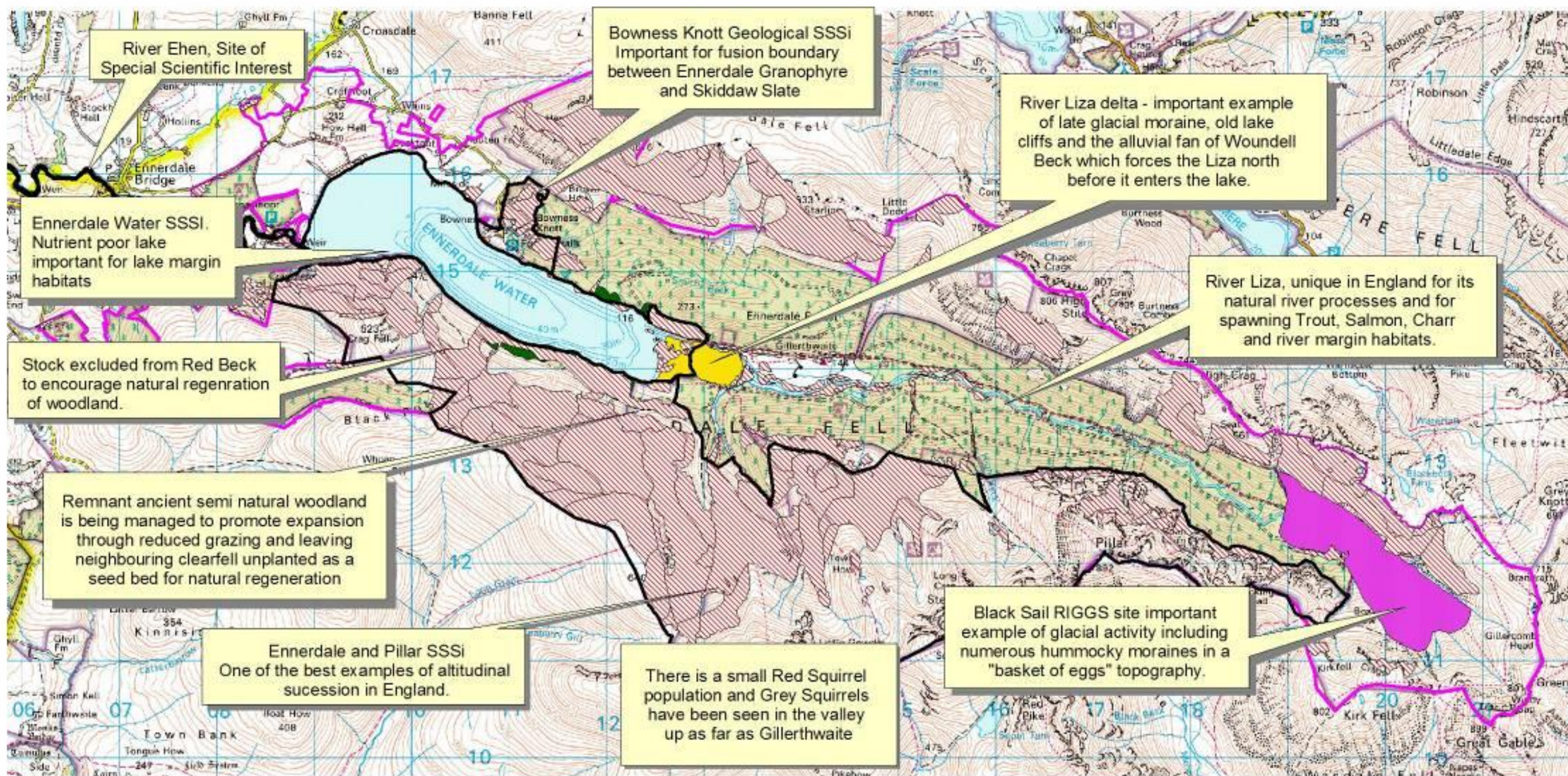
Wild Ennerdale



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L.Conservation & Natural Heritage

Scale 1:40000

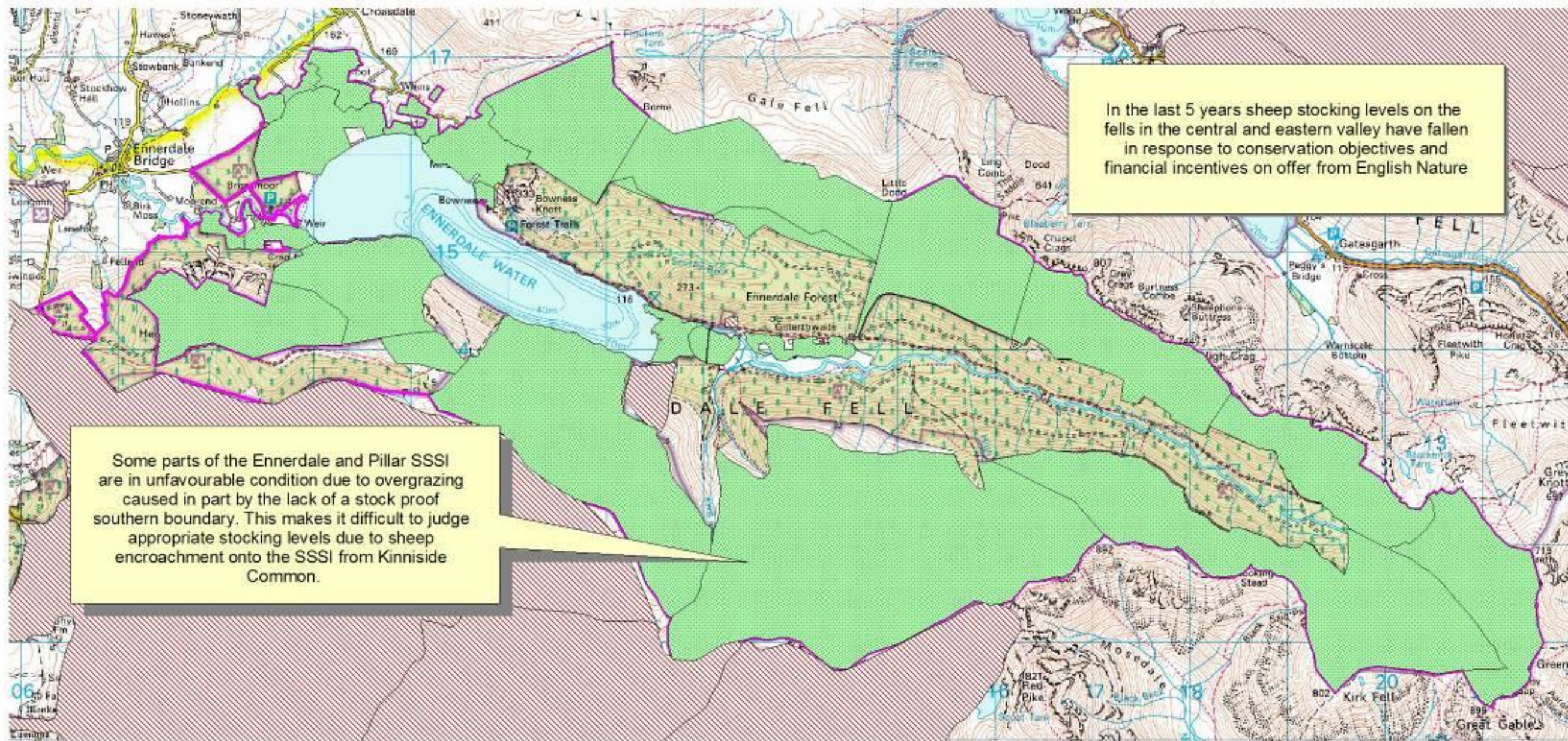


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M. Current Grazing

Scale 1:40000



This map illustrates the areas of the valley where grazing is currently managed. In the central and eastern valley grazing is restricted to higher elevations due to the establishment of the forest in the valley floor. In the western valley grazing extends down to the lakeshore. Cattle occasionally graze in the valley bottom though they are by far outnumbered by sheep. In addition to managed grazing, the valley is also home to a Roe Deer population numbering between 70 and 110 and a small (recently arrived) Red Deer population of around 10 to 15 individuals.

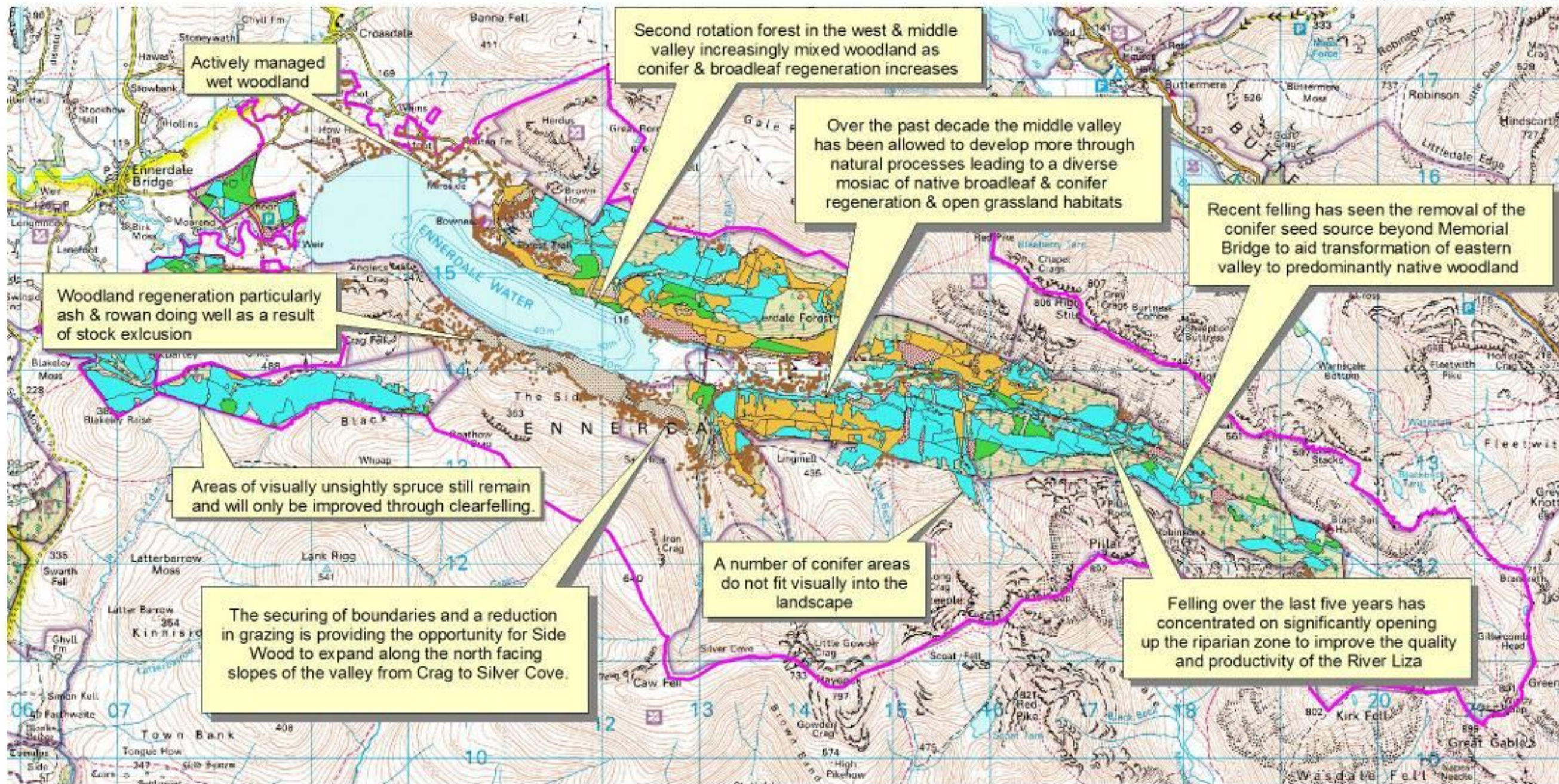


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N.Current Woodland

Scale 1:40000



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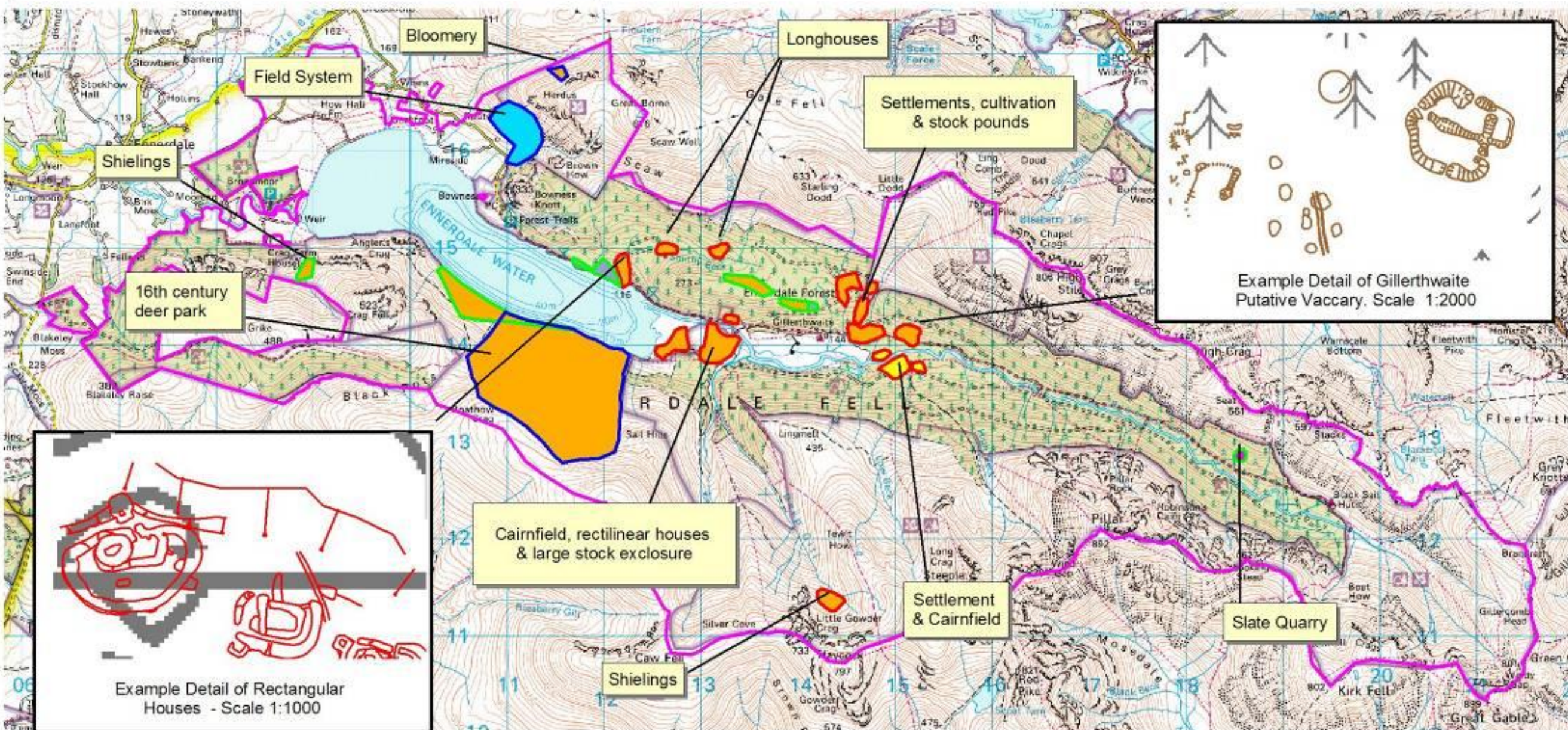


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O.Historic Landscape

Scale 1:40000



This map presents brief highlights from an Historic Landscape Survey produced by Oxford Archeology North in 2003 which brought together the previous 1995 & 1997 surveys and explored the development of the valley from 2000BC to the current day. Over 550 individual features were identified, some of which are of regional and national importance. The full report is available on the partnerships website at www.wildennerdale.co.uk. Further work to complete a survey of the western valley will be planned for a later date.

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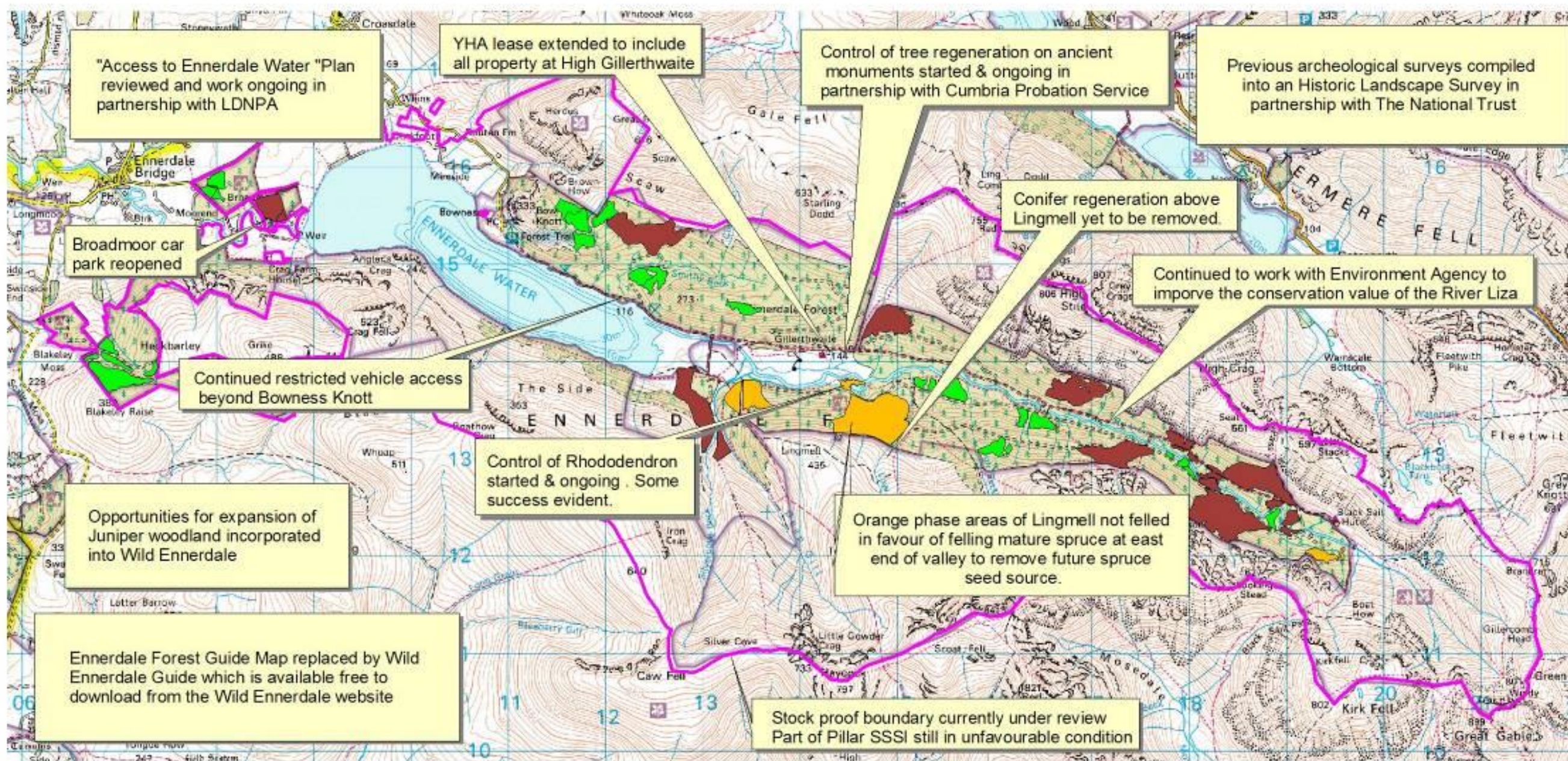


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- | | | | |
|---|-----------------------------|--|----------------------------|
|  | Wild Ennerdale boundary.shp |  | Restocking Completed |
|  | Areas not felled |  | Areas felled not restocked |

P.Review of Achievements (FC Only)

Scale 1:40000



This map illustrates some of the key achievements over the last 5 years in comparison to the objectives set out in the Forestry Commission's Ennerdale Forest Design plan approved in 2000 and which this plan replaces. Achievements for Broadmoor, Heckbarley and Crag Forest Design Plans are covered in the separate reviews of these plans completed in the last few years.

When the Wild Ennerdale plan is first reviewed in 5 years time a new map of achievements will be produced for the whole valley.



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Q. Natural Processes

Scale 1:40000



Habitat regeneration and change occurs across the valley in response to a range of disturbance factors including animal grazing and timber harvesting. However the scale of the latter is a significant detracting feature.

The River Liza and its tributaries exhibit many natural processes including erosion, gravel movement and shingle bed building, habitat creation and destruction and provides fish spawning.

The Wild Ennerdale partnership believes that past human interaction with the landscape has tended to dominate and suppress natural processes. By adjusting the scale and type of intervention, it is hoped future interaction with the landscape can become more complimentary with natural processes.

Grazing animals including sheep and deer modify vegetation in the valley but their range has been limited by fencing and traditional boundaries between farming and forestry. In addition ecological evidence suggests the need to introduce larger herbivores such as cattle to create greater and more varied disturbance patterns

Freeze / thaw action and weathering continues to erode the hard geology of the valley causing regular rock fall and scree building.

Natural processes are seen to be a key factor in allowing the valley to develop as a wilder place. Releasing natural processes to shape the future look and feel of the valley is therefore one of the principal aims of the Wild Ennerdale. This map illustrates some of the key natural processes although there are many others operating at a range of scales within the valley.



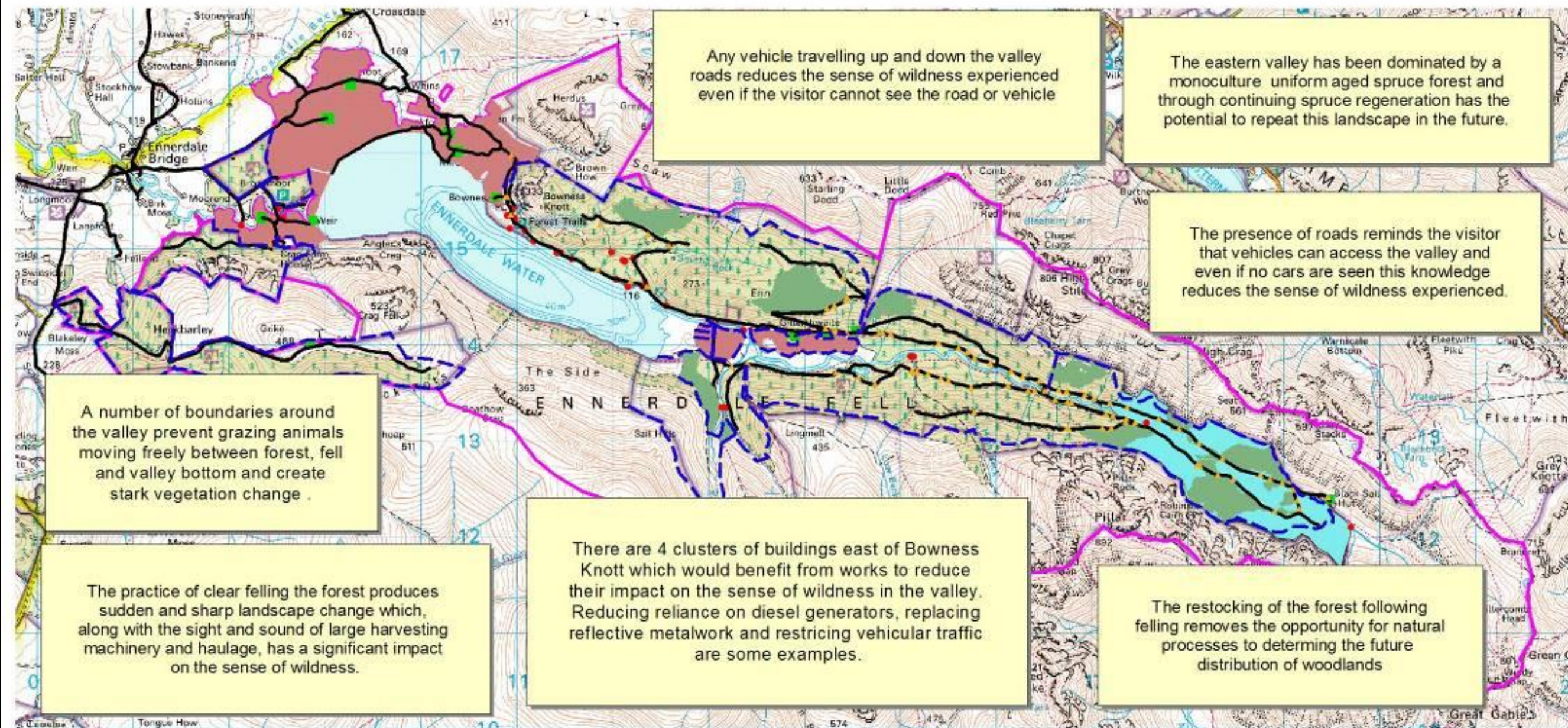
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- | | | |
|--|--|---|
|  Boundary features |  Road features (culverts etc) |  Improved grassland |
|  Roads |  Recreation furniture |  Eastern spruce forest |
|  Buildings |  Clearfells | |

R.Current Detracting Features

Scale 1:40000



This map identifies some features of the valley which detract from the sense of wildness experienced. Whilst it is the Partnership's aim to reduce the impact of detracting features it recognises the importance of the valley as a place for people and as such is not proposing the removal of any of the buildings shown (for example). This map shows that detracting features are at their lowest at the eastern and southern ends of the valley and that this is where there is the greatest opportunity to increase the sense of wildness through for example preventing spruce dominating in the future.

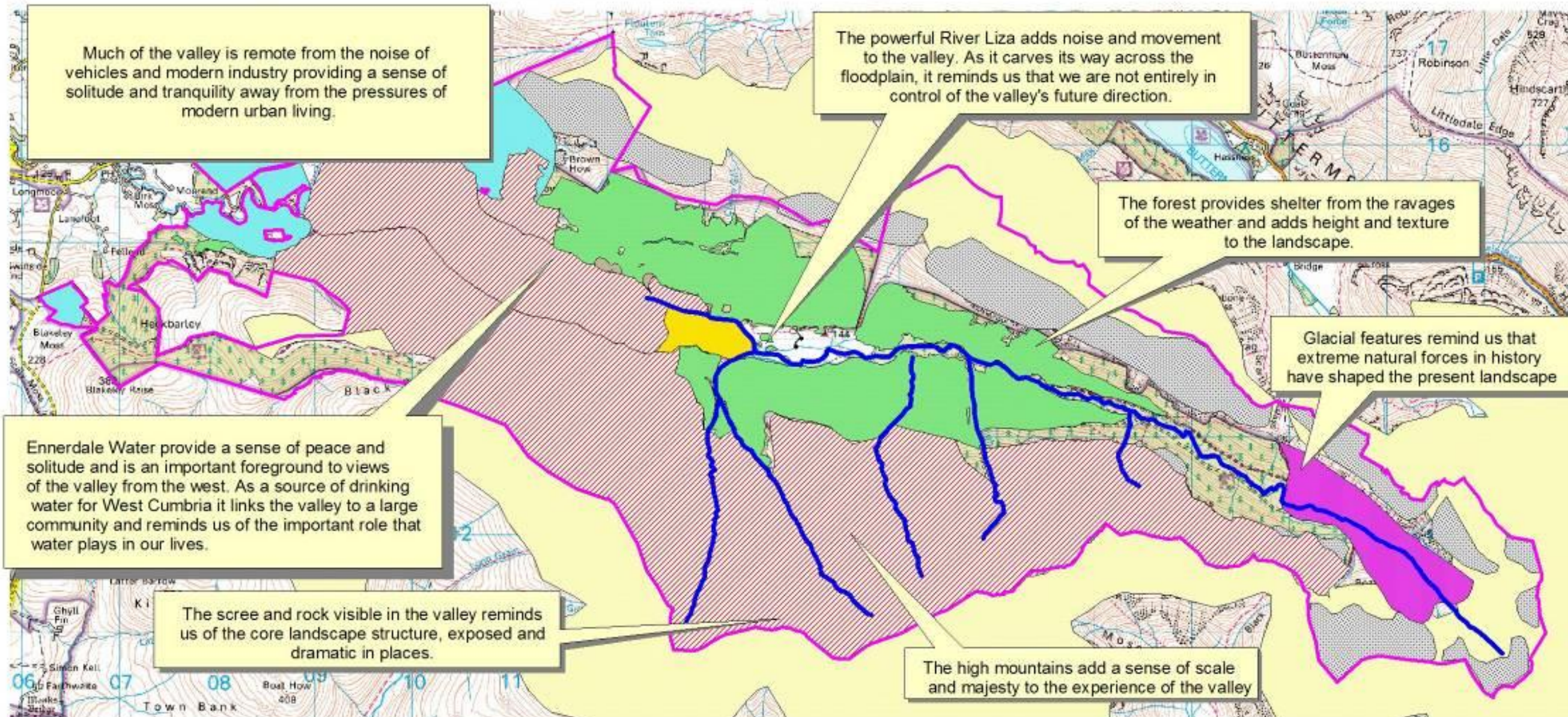
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S.Current Wild Features

Scale 1:40000



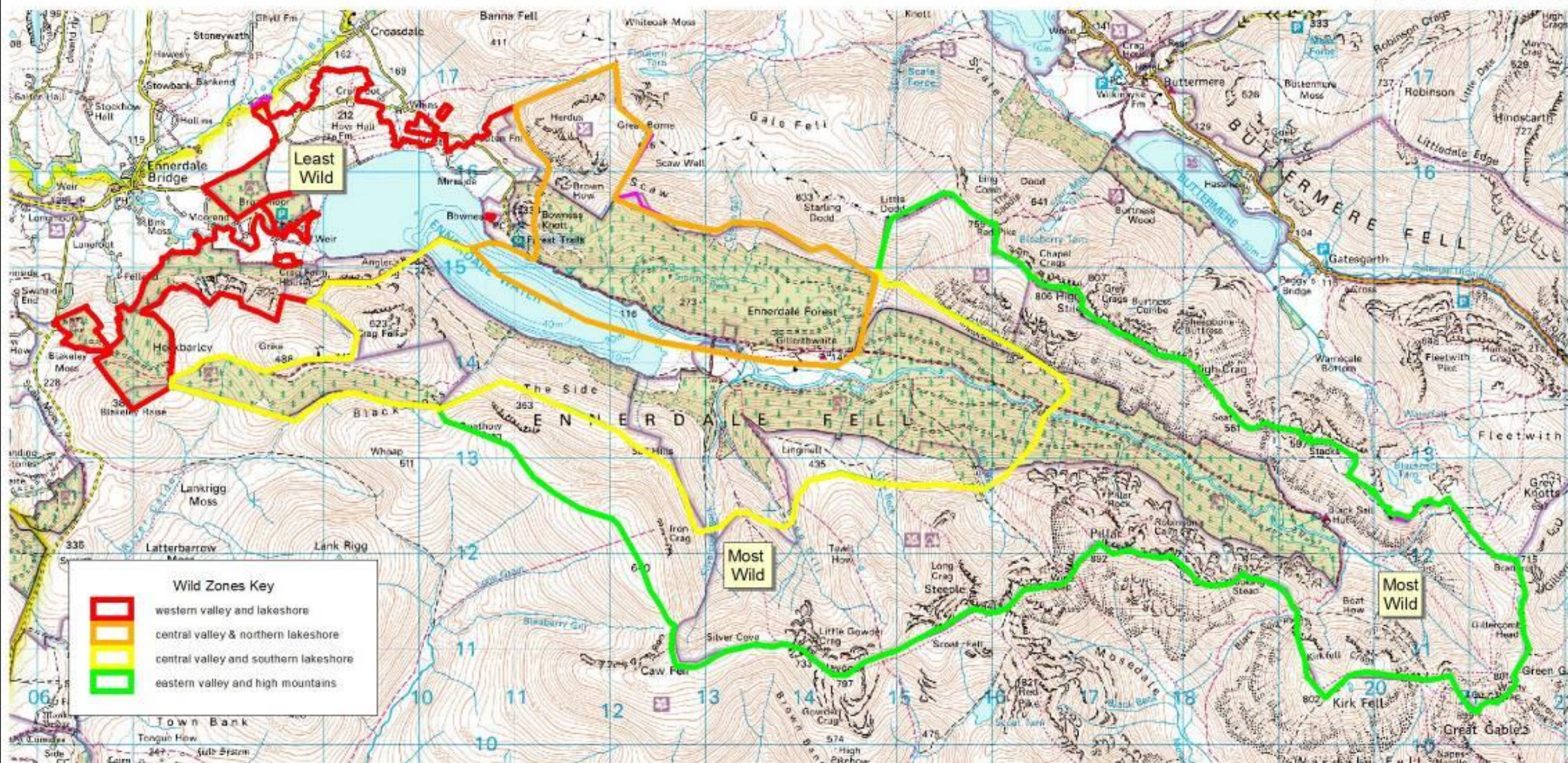
From literature research and talking to people who visit the valley it would appear that the key attributes in people experiencing a sense of wildness is an ability to view and experience a combination of the high mountains, River Liza, big open trees and Ennerdale Lake. Whilst it is not critical to see these all at once, it is important that regular views are added to the image built up of the landscape by anyone visiting the valley.



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T.Wild Zones

Scale 1:40000



This map aims to bring together all the survey information to create a zoned map of the valley based on identifying areas with increasing current and potential wildness values. Zones are deliberately kept to a minimum as the aim of Wild Ennerdale is to manage at the landscape scale. On the following maps each zone is described separately and proposals to allow the valley to develop are illustrated with examples of actions taken from the Stewardship Plan statements.

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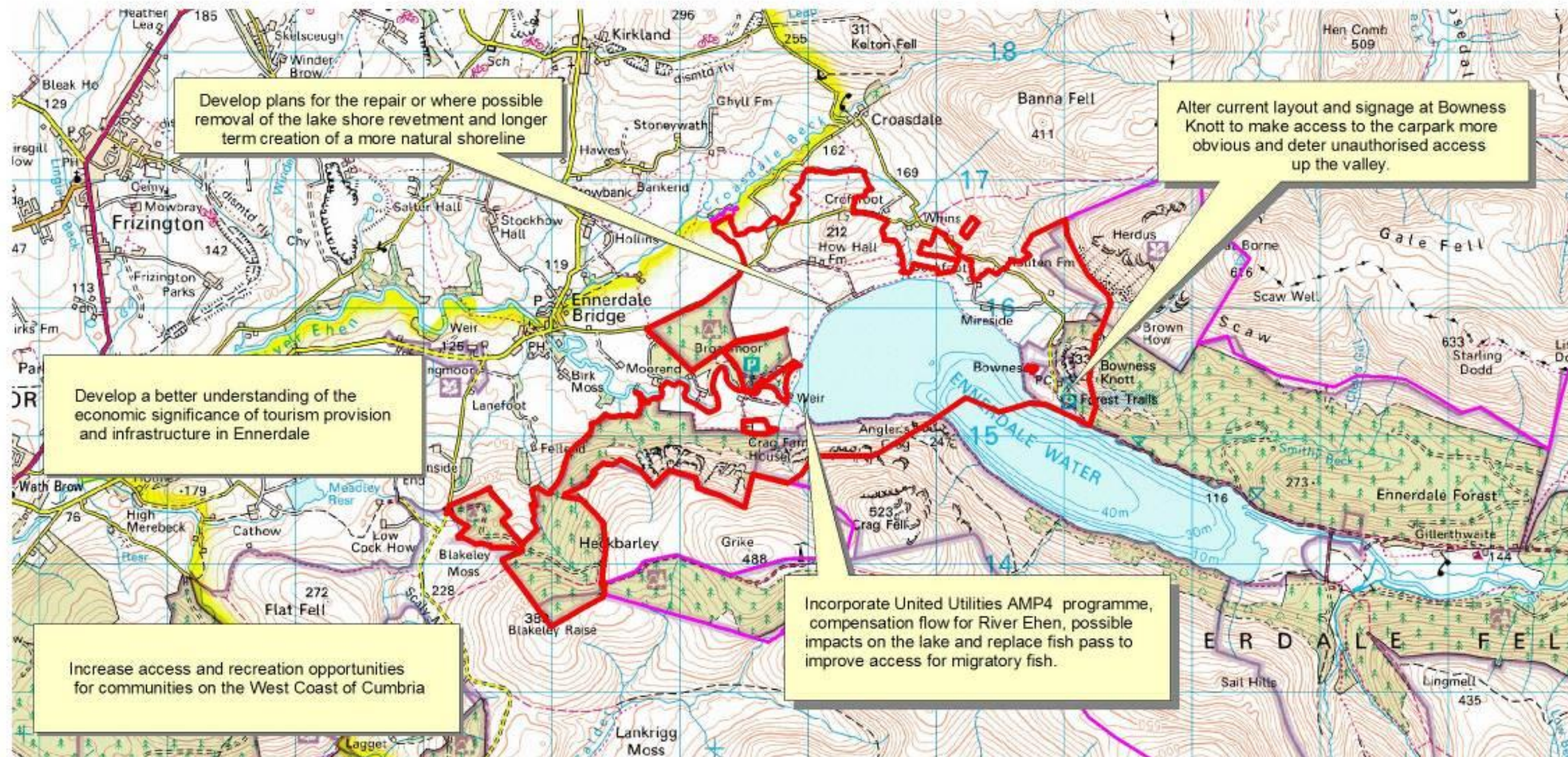


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Ti. Western Valley & Lakeshore Wild Zone

Attributes and Sample Proposed Actions

Scale 1:30000



This map describes the main attributes of the Western and Lakeshore Wild Zone and illustrates some of the proposed actions taken from the text statements

Attributes: Least remote, most populated and visited, lowest sense of wildness, northern lakeshore agricultural in character, southern half more upland in character, outfall of Ennerdale Water into River Ehen, difficult to access forest below & east of Grike which recently suffered heavy windblow

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Wild Ennerdale

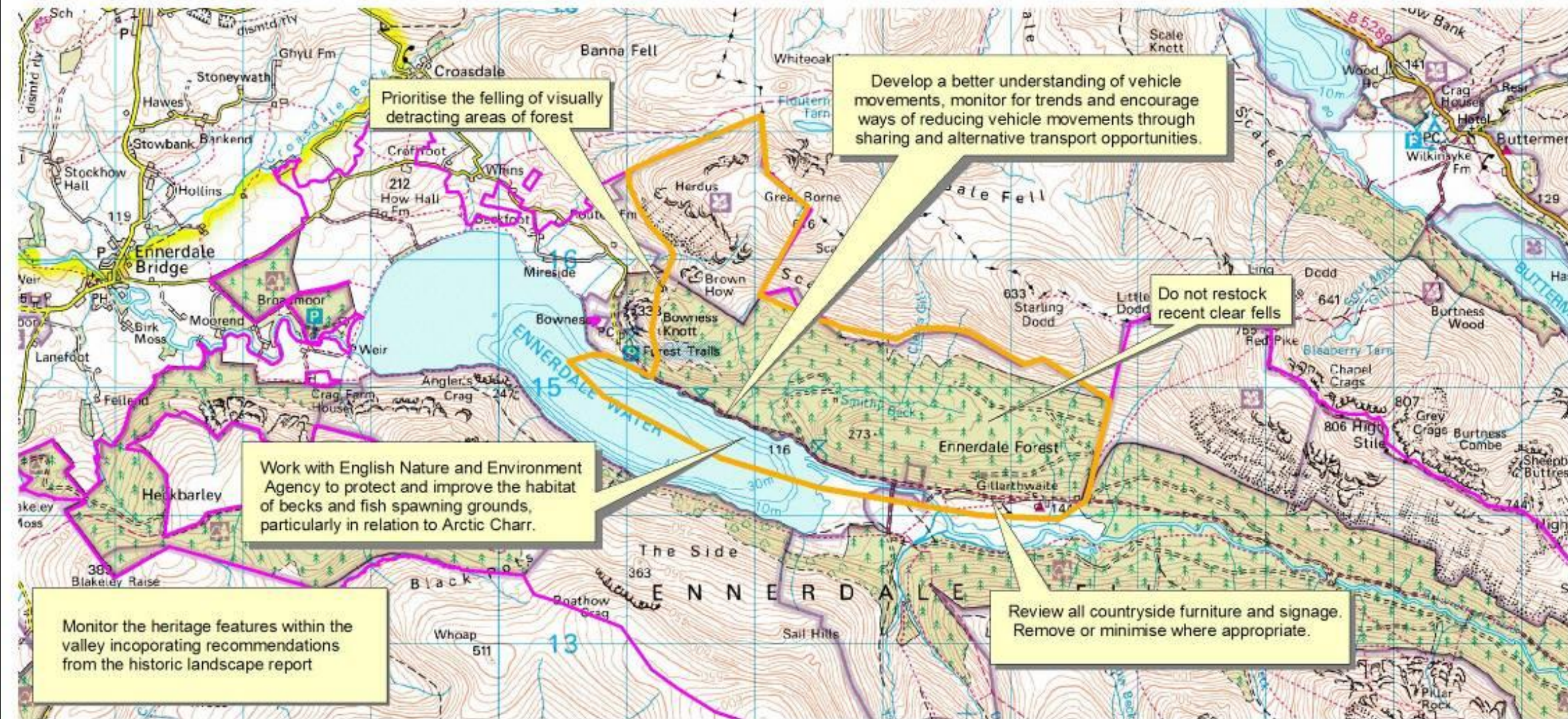


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Tii.Central Valley & Northern Lakeshore Wild Zone

Attributes and Sample Proposed Actions

Scale 1:30000



This map describes the main attributes of the Central Valley & Northern Lakeshore Wild Zone and illustrates some of the proposed actions taken from the text statements

Attributes: Easily accessible from Bownes Knott, popular lakeshore can become busy, no public vehicular access but forest road well used for access to rest of valley, by people who work and live in the valley and visitors staying overnight at Gillerthwaite. Forest characterised by increasingly mixed species. Herdus stands as gateway to the valley. Transition zone between less wild west and wilder eastern and southern zones. Char spawning grounds. Includes YHA and Field Centre.

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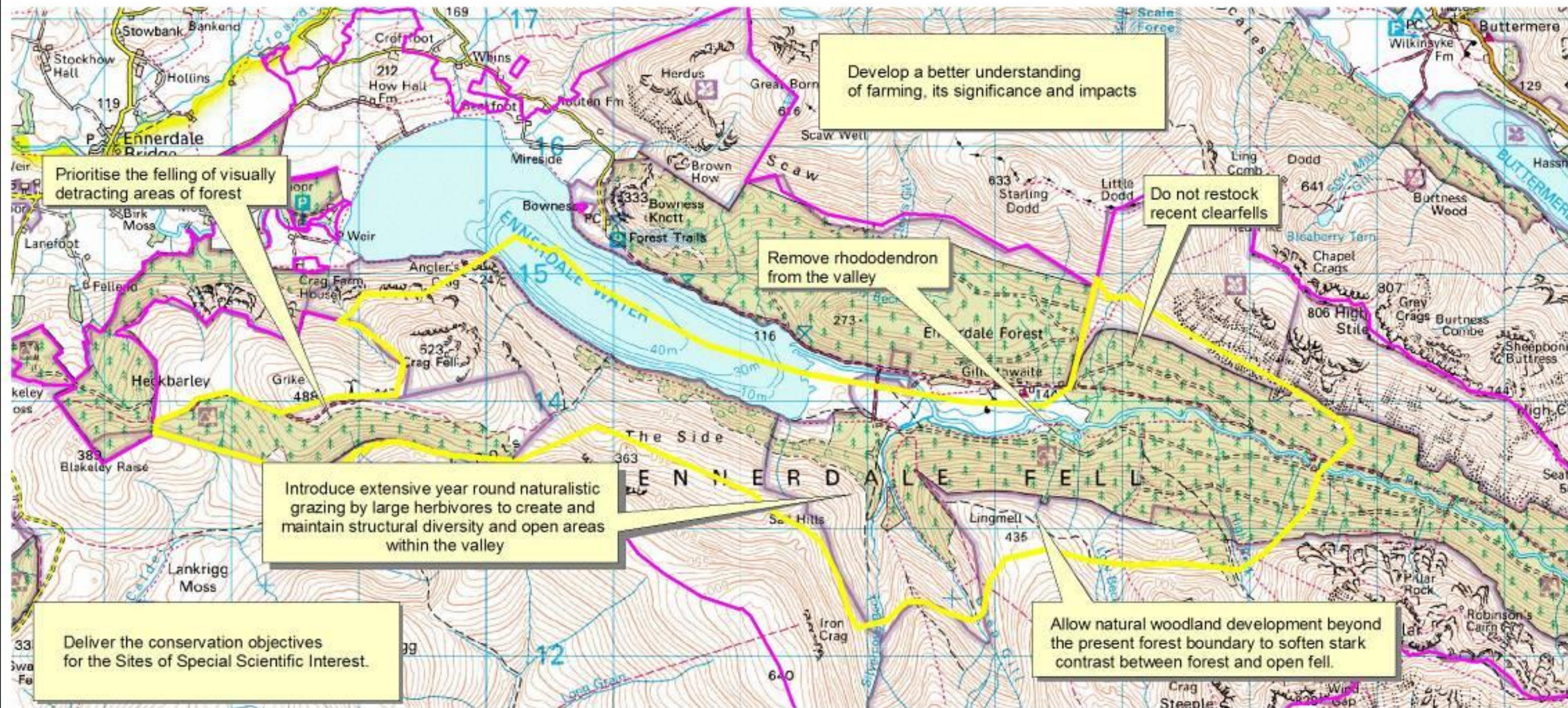


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Tiii. Central Valley & Southern Lakeshore Wild Zone

Attributes and Sample Proposed Actions

Scale 1:30000



This map describes the main attributes of the Central Valley & Southern Lakeshore Wild Zone and illustrates some of the proposed actions taken from the text statements

Attributes: increasing remoteness and sense of wildness with increasing southerly and easterly direction. Some harsh boundaries between forest and fell, especially above Lingmell and at Heckbarley. Intensively managed inbye in valley bottom leading to some poor boundaries between ungrazed and grazed vegetation. Low vehicle numbers beyond Gillerthwaite accommodation. Heavily braided and dynamic lower reaches of River Liza with extensive mobile shingle beds. Lower altitudes of Ennerdale & Pillar SSSI, Side Wood (ancient semi natural upland oak woodland.)

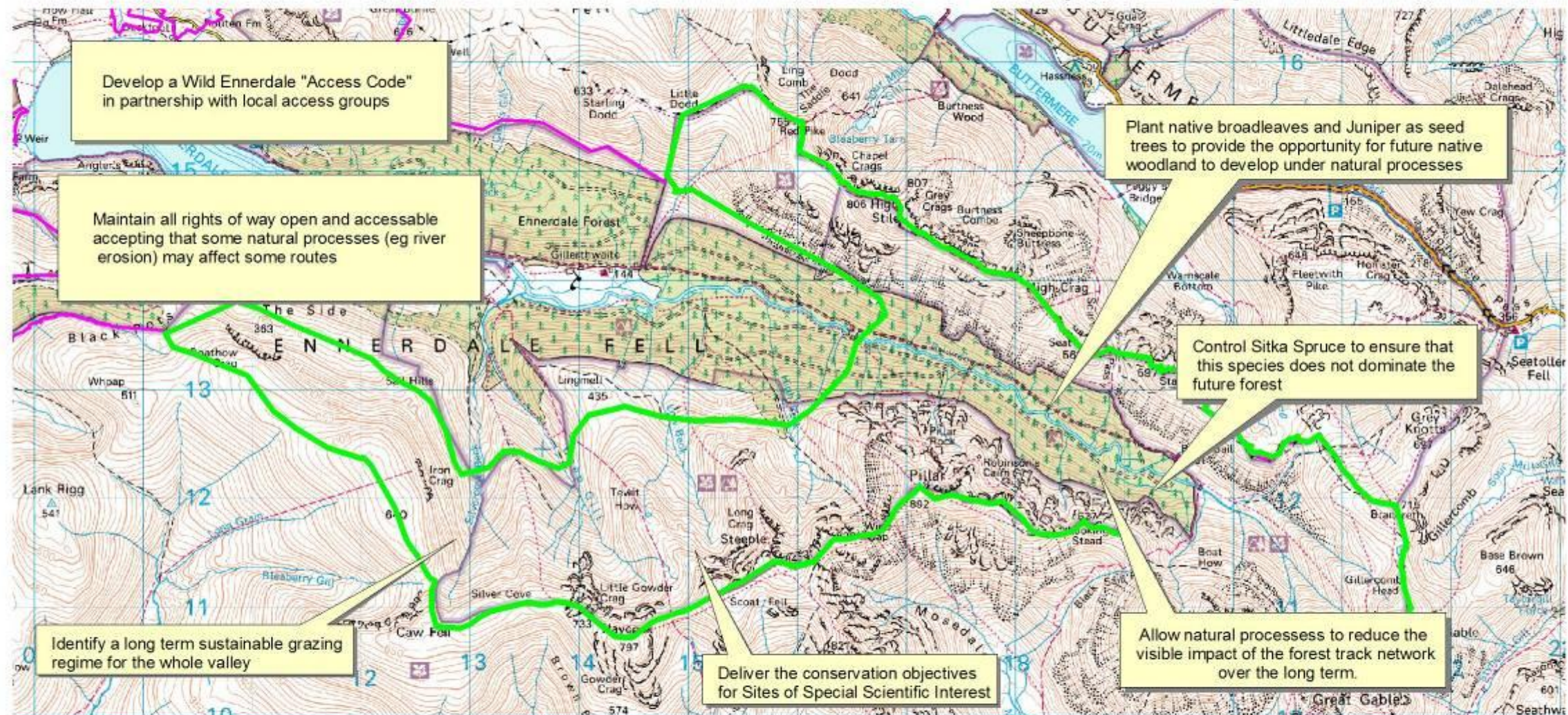
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Tiv. Eastern Valley & High Mountains Wild Zone Attributes and Sample Proposed Actions

Scale 1:35000



This map describes the main attributes of the Eastern Valley & High Mountains Wild Zone and illustrates some of the proposed actions taken from the text statements

Attributes: Most remote and greatest opportunity for increased sense of wildness. High rugged majestic mountains. Narrow valley bottom. Dynamic powerful River Liza. Large areas of recently felled conifer are a short term major detracting feature but opportunity to allow more native woodland and open habitats to develop. Higher altitudes of Ennerdale & Pillar SSSI. Glacial features at Black Sail. Extensive but managed sheep grazing. Black Sail YHA.

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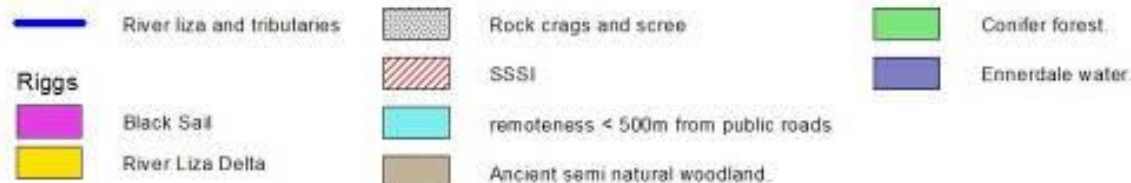
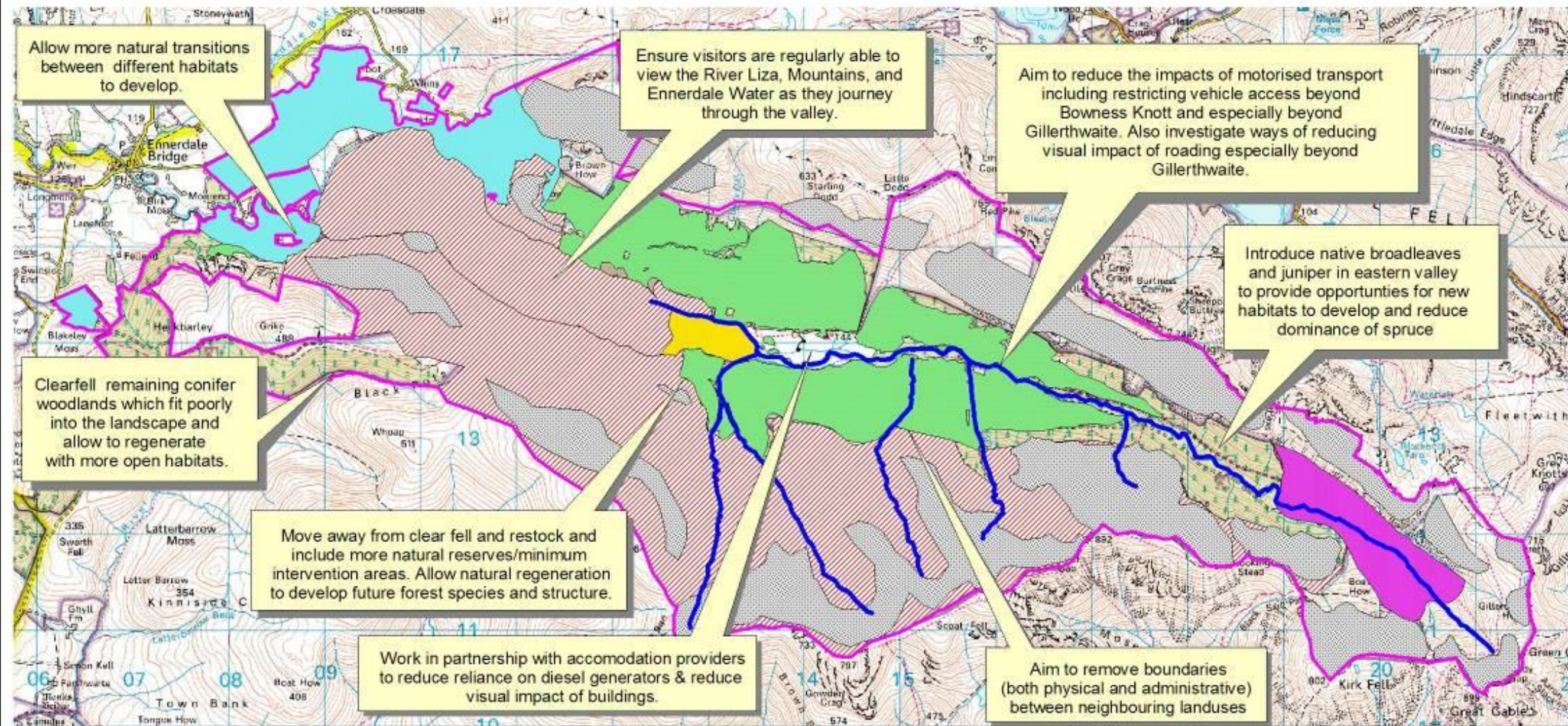


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The vision for Ennerdale is to allow the valley to develop as a Wild Valley. This map illustrates the key ways in which the partnership proposes to enhance the sense of wildness across the valley.

U. Enhancing Wildness

Scale 1:40000



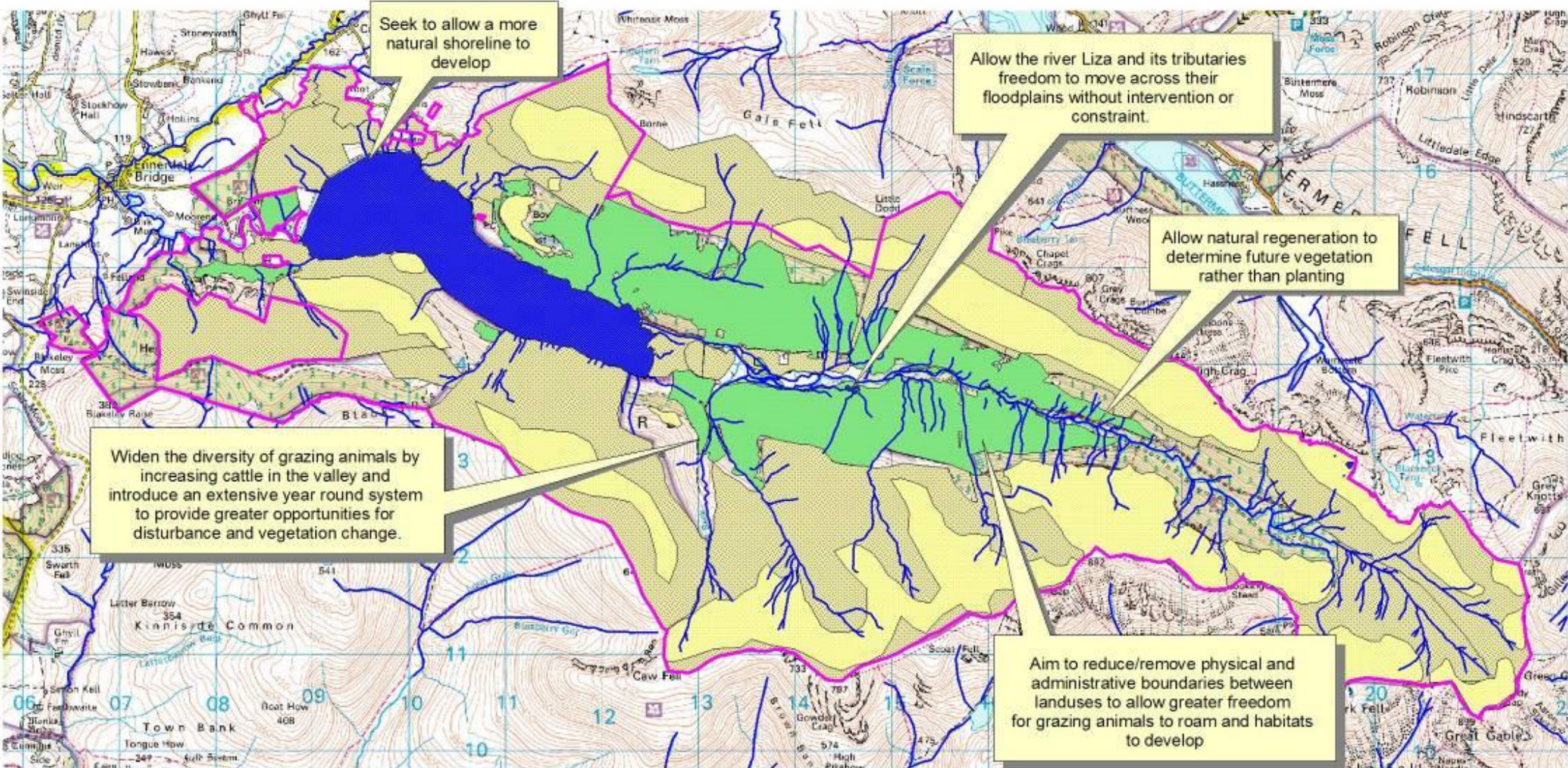
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V.Enhancing Natural Processes

Scale 1:40000



Allowing natural processes greater freedom to develop the landscape is seen by the partnership as a key to future management of Ennerdale. This map illustrates some of the methods by which this will be allowed to happen

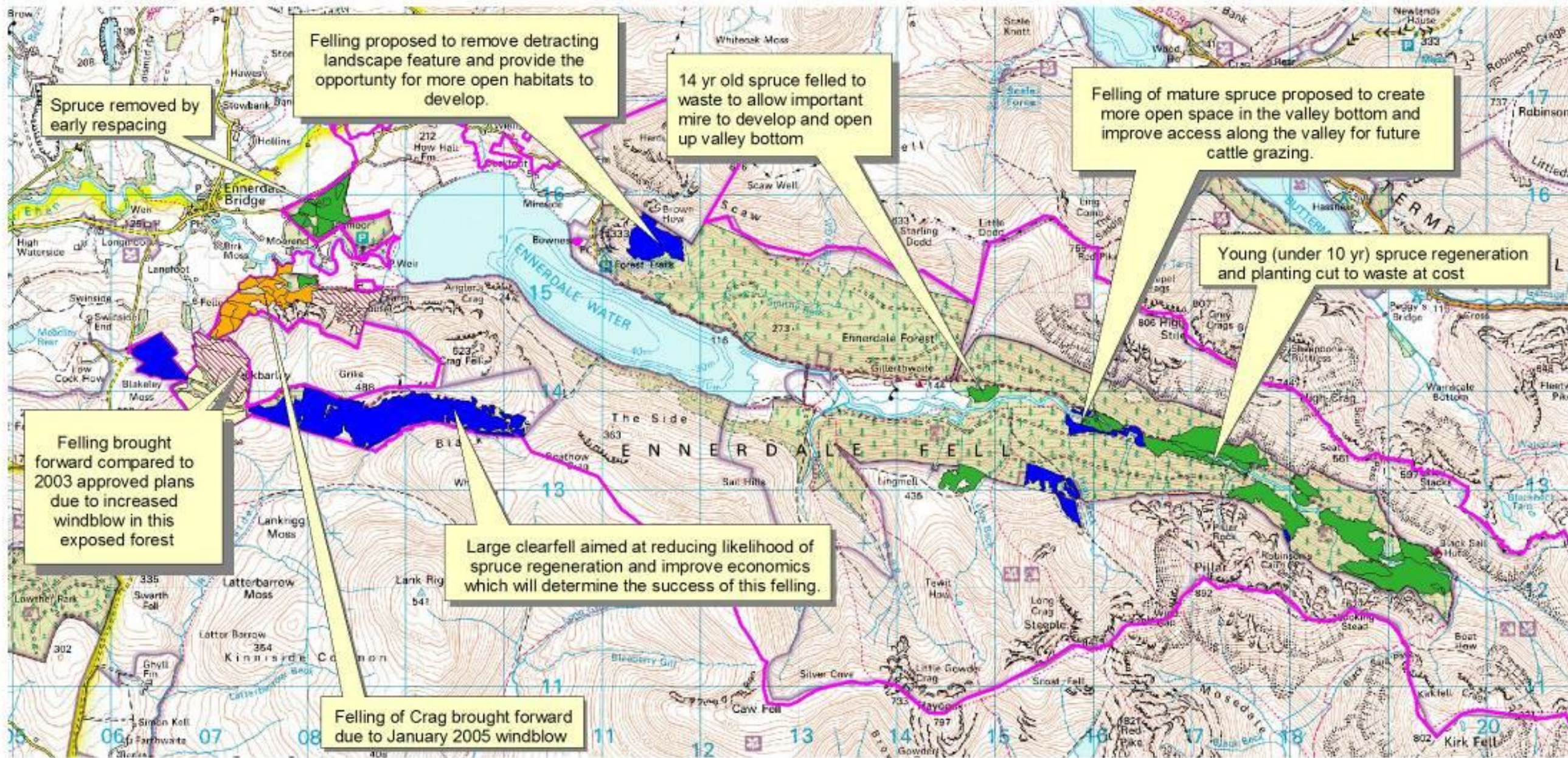


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W.Future Felling

Scale 1:40000



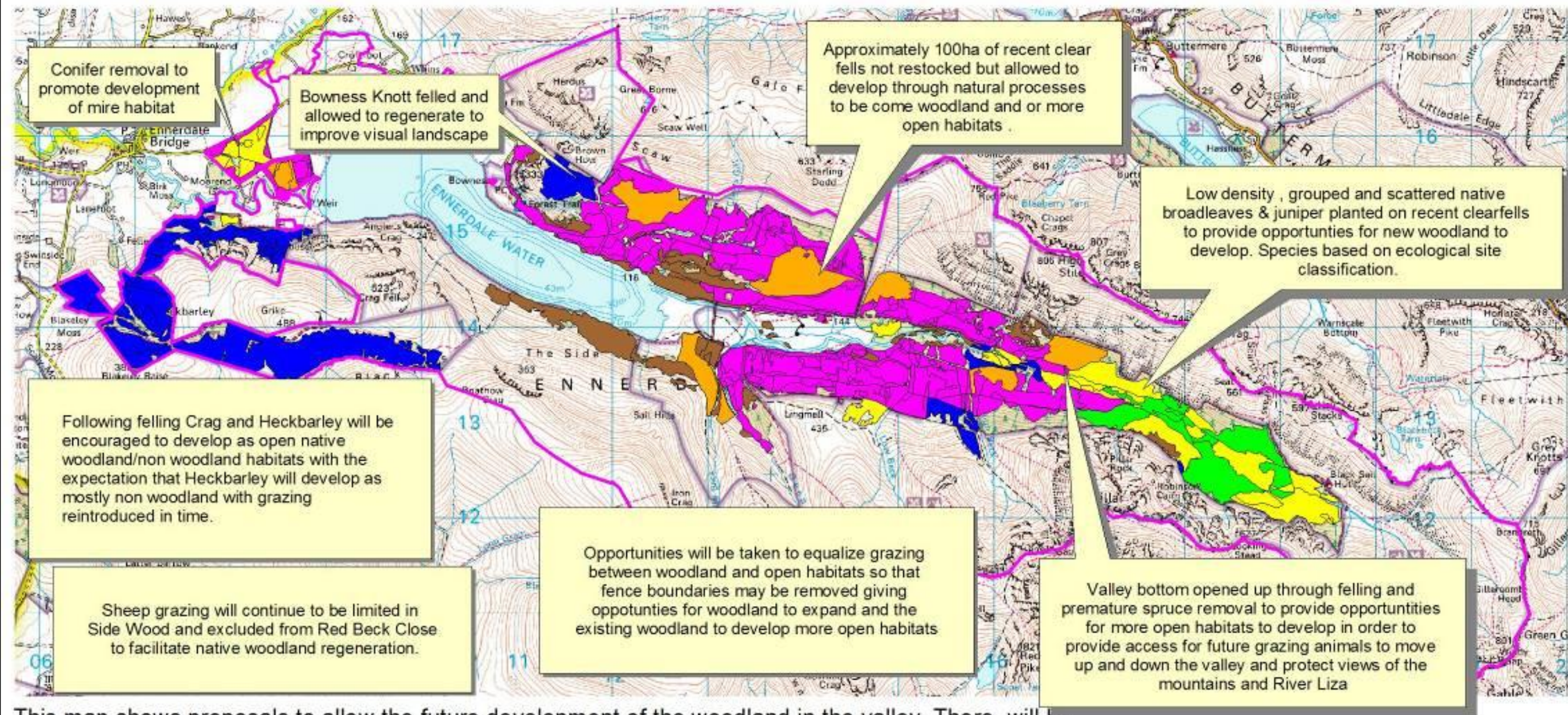
This map shows the planned phasing and shapes of the remaining areas of forest proposed for clear felling. Also shown are areas of more recent spruce planting and regeneration proposed to be felled to waste to open up the valley bottom, release planted mire and ensure spruce does not dominate the eastern valley.



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X.Future Woodland

Scale 1:40000



This map shows proposals to allow the future development of the woodland in the valley. There will be continued intervention over the next 5, to 20 years aimed at removing detracting features through clearfelling & the clearance of young planted and regenerating spruce. The remaining forest will be allowed to develop through continuous cover (regular thinning) to encourage a more open woodland structure to develop relying on natural regeneration. Over time, intervention will continue to decrease as natural processes become more dominant. Public rights of way will however continue to be maintained with access, healthy & safety as key priorities.

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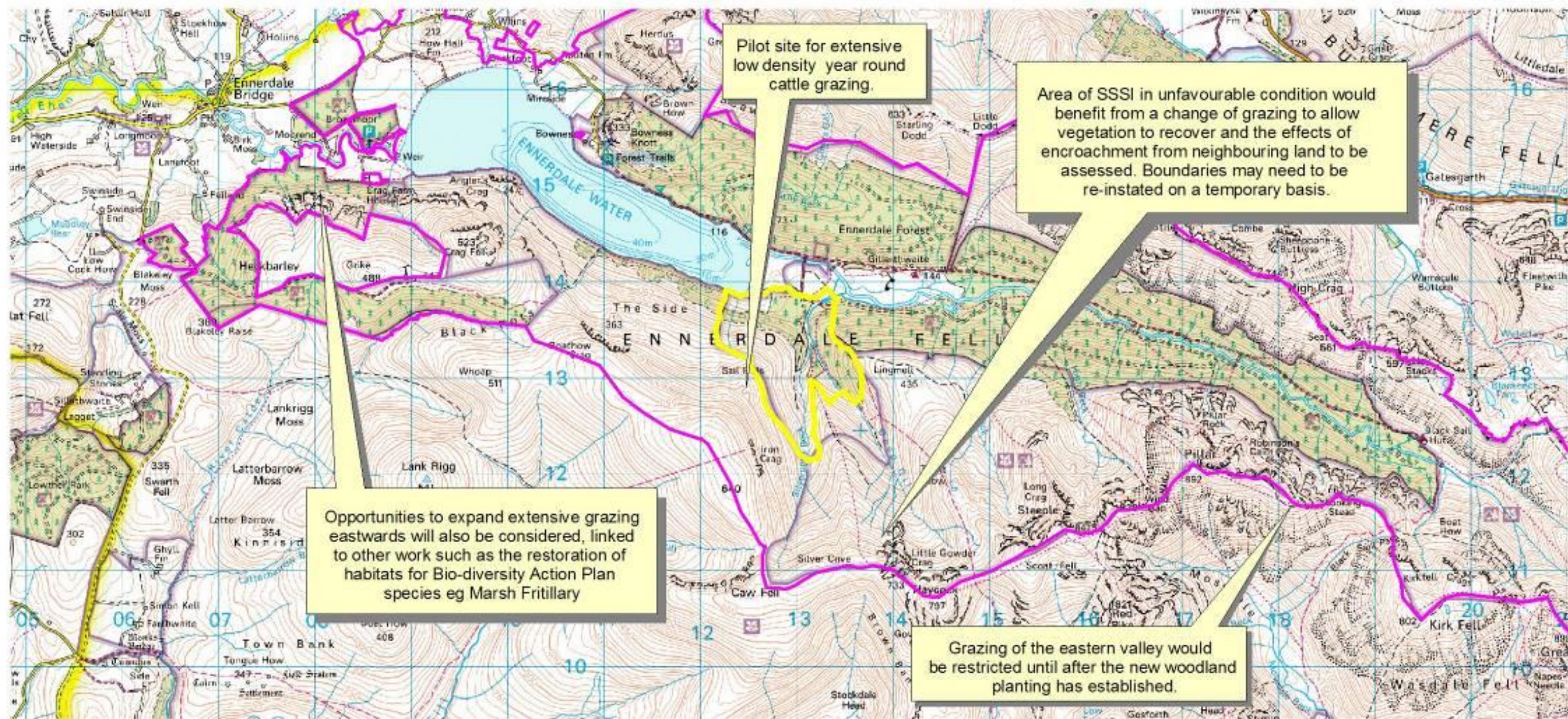


Stewardship Plan - 2006

Red deer will be allowed to establish in the valley. Evidence suggests that having this large herbivore in addition to Roe deer and cattle will assist in developing natural processes of disturbance and vegetation change. However as deer have no natural wild predator, deer management will continue with cull figures for both species agreed annually based on feedback from vegetation monitoring and expert advice. Stocking levels of sheep & cattle will continue to be reviewed in line with woodland regeneration & SSSI conditions

Y.Future Grazing

Scale 1:40000



The partnership aspires to develop a more extensive grazing system by removing boundaries to the movement of grazing animals across the valley giving them greater freedom to determine where they graze. In addition, the partnership wants to maximise the opportunity for agricultural tenants to benefit from agri-environment support. The management of grazing will be a key factor in the restoration of the Pillar and Ennerdale SSSI to favourable condition by 2010. The extensive grazing scheme will start with the introduction of around 12 cattle into Silver Cove (highlighted red on the map) during 2006 followed by a phased expansion into neighbouring areas over the next 10 years.

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Z.Monitoring

Scale 1:40000

The aerial photography shown on this map is from the year 2000. Agreements are in place to update these images approximately every five years. Once the location of fixed point photos and other survey work has been completed they will be added to this map.



Old Anglers site inset shows level of detail at a scale of 1:2500

Monitoring is aimed at recording how the valley develops over time. The methodologies used and scale of monitoring will depend on the process being monitored eg, farming, tourism. It is important that a sustainable monitoring regime is established to capture change over the long term to inform future generations. Fixed point photography, aerial photography, sample plots, questionnaires and vehicle counters are just some of the methods that are already in place or planned. All records will be available on the partnership website.

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