Landscape Character Assessment

Yorkshire Dales National Park

Howgill Fells, from the Rawthey Valley

YORKSHIRE DALES
National Park Authority

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1 Introduction

1.1 Scope and purpose

The stunning, evocative landscapes of the Yorkshire Dales are designated as a national park in recognition of their exceptional scenic beauty. The sweeping moorland summits, carved by intimate dales and dramatic limestone features are traced with patterns of stone walls, barns, settlement and industry that reveal a legacy of land use dating back through the centuries. This is a landscape of national importance, which forms part of our collective identity.

By classifying, analysing and describing the distinctive characteristics of the different landscapes found in the national park, the landscape character assessment (LCA) can be used to inform decisions about landscape planning and management which guide positive landscape change. The LCA takes account of the key drivers for change in the Yorkshire Dales National Park (YDNP) and also provides guidance for built development, land management and recreation including specific guidelines for development capacity and constraint in the National Park's larger settlements.

The aim is to conserve and enhance the distinctive landscape character of the Yorkshire Dales landscape, counteracting forces for change that may otherwise erode local distinctiveness.

The LCA underpins the Yorkshire Dales National Park Management Plan[1] and is an important tool that can be used to deliver the vision articulated in this key policy document. It will also be used to:

- inform the development of policy in the Yorkshire Dales National Park Local Plan;
- provide evidence to steer delivery of specific National Park Management Plan objectives, for instance in relation to housing land release, woodland creation, recreation and access;
- target investment in conservation activity by identifying spatial priorities for the funding and management of programmes for restoring distinctive landscape features such as barns, walls, green lanes and hedgerows; and
- promote understanding and enjoyment of the YDNP.



[1] Yorkshire Dales National Park Management Plan 2019-2024,

1.2 Approach

The first LCA for the YDNP was prepared in 2002[2]. The detailed classification and description of landscape character set out in this report remains relevant and has been used as the basis for this updated LCA.

The methodology follows national good practice[3] with a carefully planned, phased programme of research, data collation, fieldwork and landscape classification. Key changes from the original (2002) study are that this new LCA:

- simplifies and reduces the LCA content to create a more concise, user-friendly document;
- extends the LCA to include the whole of the YDNP, including the extension areas which were added to the National Park in 2016;
- includes strategic guidance for managing positive change;
- locates and articulates many of the special qualities and features of the YDNP; and
- presents the LCA in an illustrative, accessible way - as a web-based resource as well as a report.

This principal LCA report provides the context for the study, including the geography, geology, heritage and landcover character of the YDNP. It describes the hierarchy of landscape character types at a regional scale and the classification of 19 landscape character areas that have been used to structure the landscape character assessment. A set of 19 separate reports, one for each of the YDNP's landscape character areas, accompanies the study.

The character and condition of the National Park's landscapes are influenced by external forces for change such as government policy (and availability of funding) for agriculture, renewable energy and forestry. Other pressures might come from the shifting market for built development, traffic and tourism. Section 3 in this principal report focuses on the forces for change that are considered to have the strongest influence on landscape character and provides guidance for managing these drivers for change with the aim of reinforcing variations in distinctive local landscape character across the National Park.

Four annexes provide additional analysis. Annex A presents a map to show the classification of regional landscape character types in each of the existing published landscape character assessments for the local authority areas that border the National Park. Annex B provides tables to compare the contribution made by key landscape elements and features to landscape character across the YDNP. Annex C provides an assessment of the landscape settings of the larger settlements within the National Park, together with guidance for built development which contributes positively to their distinctive sense of place. Annex D identifies key views and areas of significant sensitivity within the landscape setting of the National Park at the principal vehicular gateways.

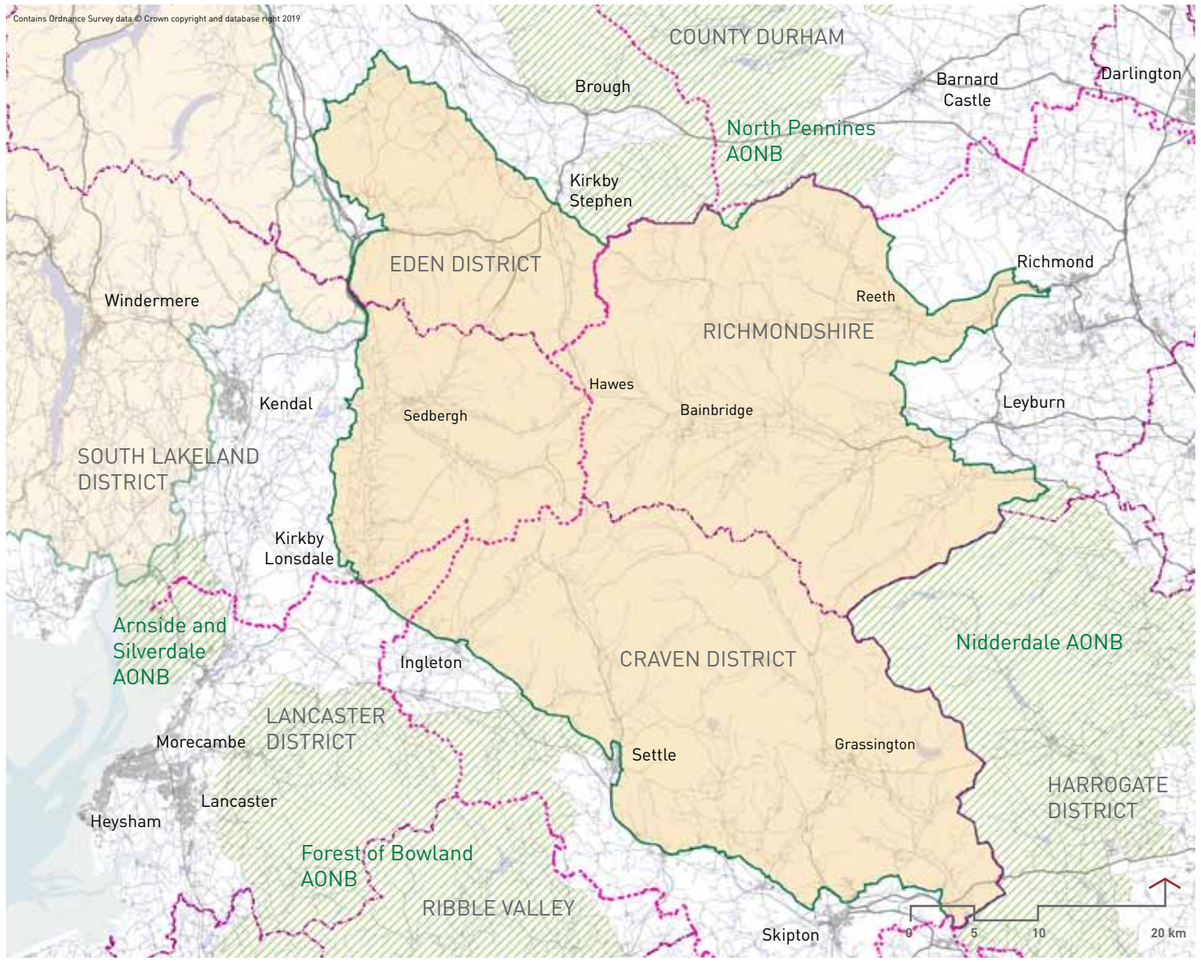
1.3 Special qualities

The landscapes of the YDNP are of national importance for their natural beauty (which includes wildlife and cultural heritage) and the opportunities they provide for open-air recreation. The statutory purposes which underpin national park legislation[4] require that national parks conserve and enhance that natural beauty and promote opportunities for the understanding and enjoyment of their special qualities by the public.

The special qualities of the YDNP are described in the National Park Management Plan,[5] along with the vision for the National Park and the specific objectives that the partnership of local organisations that operate in the National Park intend to achieve over the next five years.

The LCA aims to describe the special qualities of the Yorkshire Dales, showing where the distinctive physical, cultural and perceptual landscape features and elements are found in each of the National Park's 19 landscape character areas. Not all of the special qualities listed in the Management Plan can be mapped, but the detailed landscape character area reports contain maps that show the distribution of selected YDNP special qualities, for which spatial data is available, for each of the landscape character areas.

Figure 1
Location - regional context



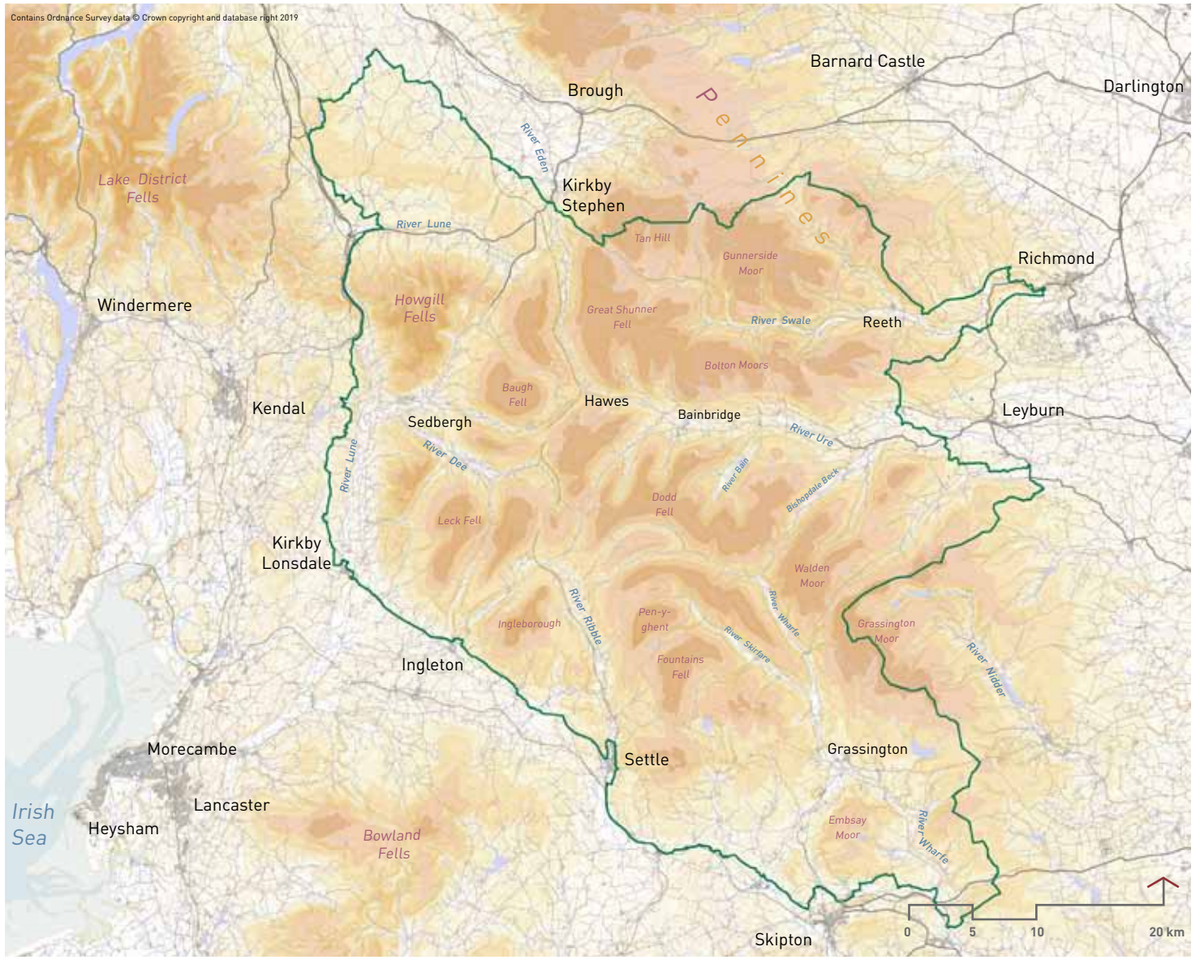
[2] Yorkshire Dales National Park Landscape Character Assessment, Estell Warren Landscape Architects, 2002

[3] An approach to landscape character assessment, Christine Tudor, Natural England, 2014

[4] Section 61 of the Environment Act, 1995

[5] Refer to Footnote 1

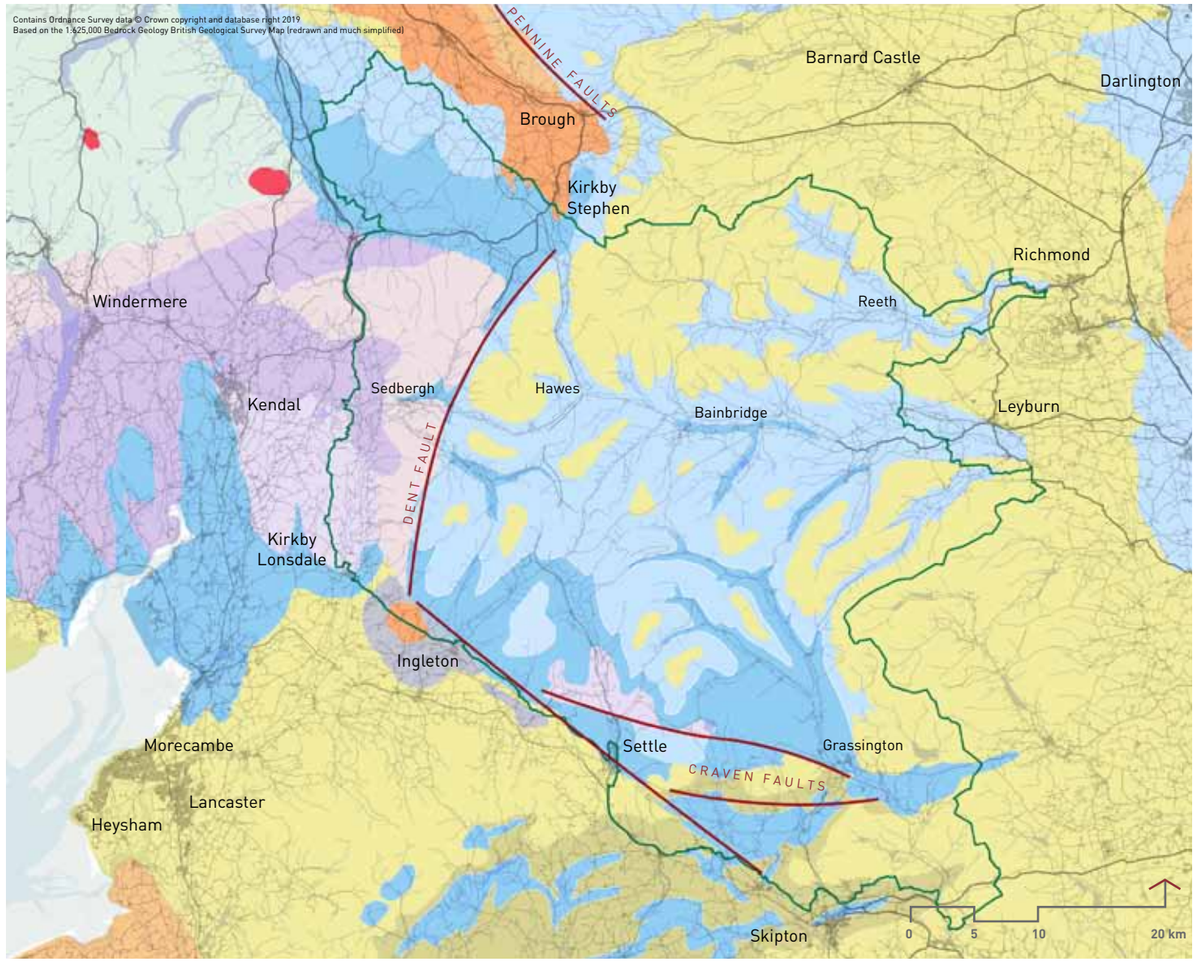
Figure 2
Topography and drainage



Yorkshire Dales National Park Boundary

Topography
- Above 500 m
- 400 - 500 m
- 300 - 400 m
- 200 - 300 m
- Below 200 m
- Lakes

Figure 3
Simplified geology



Yorkshire Dales National Park Boundary
- Lakes

Ordovician
- Ordovician Rocks

Silurian
- Sandstone and Siltstone
- Mudstone and Wacke
- Wacke
- Granites

Carboniferous
- Millstone Grit
- Craven Group (mudstone/siltstone/with limestone)
- Yoredale Rocks (mudstone/sandstone/limestone)
- Great Scar Limestone
- Coal Measures

Permian
- Sherwood Sandstone
- Appleby Group (sandstone)

- Principal faults

1.4 Geographical context

Figure 1 shows the location of the YDNP in relation to relevant local authority boundaries and the boundaries of adjacent protected landscapes - the Lake District National Park to the west, the North Pennines Area of Outstanding Natural Beauty (AONB) to the north and the Nidderdale AONB to the south-east.

Figure 2 shows patterns of topography and drainage at a regional scale. The Yorkshire Dales form part of the chain of Pennine uplands which form a 'spine' along the centre of Northern England. However, the more varied scenery of the dales stems from the underlying bedrock in which there is a transition from the gritstones of the North Pennines to the limestone uplands in the southern part of the Dales. From altitudes of over 600 metres, the land drops down towards the fertile Vales of York and Mowbray to the east, and to the low lying plains of Lancashire to the south west, dividing the Dales from the Bowland Fells. To the north west lie the older rock formations of the Lake District and surrounds.

1.5 Physical influences

The uplands of the Yorkshire Dales are broadly defined by the extent of an underlying 'basement' rock known as the Askrigg Block. This ancient slab, which forms the foundation for the overlying carboniferous rocks, is bounded by major fault lines - the Stainmore Trough faults to the north, the Craven Faults to the south and the Dent Fault to the west. The Dent Fault subdivides the carboniferous uplands from the Howgill Fells in the western part of the YDNP which are underlain by older Silurian rocks. The north-south alignment of the Lune Valley on the western fringes of the YDNP parallels the axis of the Dent Fault.

Figure 3 is a simplified geological map of the Yorkshire Dales at a regional scale. The predominant rock of the Dales is Carboniferous Limestone, formed about 300 million years ago. This is overlain by the Yoredale series of sedimentary rocks that are in turn overlain by Millstone Grit, which forms a capping to some of the highest hills.



Malham Cove - The spectacular limestone cliff at the head of Malhamdale



The Carboniferous Limestone comprises thick, strong, hard and compact beds of limestone interbedded with mudstone. The limestone is predominantly grey in colour, although it can vary from cream to dark grey and the familiar white colour of the exposed rock is due to the formation of a surface patina resulting from weathering. The prominent bedding planes of the rock can be seen in the limestone pavements in outcrops and crags in the southern dales.

The Yoredale series of rocks consist of repeating layers of alternating weak shales and hard sandstones and limestones, with thin coal seams. These give rise to the stepped topography, which is such a distinctive feature of dales such as Wensleydale, and creates the dramatic profiles of Ingleborough and Pen-y-ghent. The bands of hard rock overlying softer rocks also give rise to numerous waterfalls, often with large pools curved out in the softer rocks at their base. Further north, the sandstones are more prominent and are locally a source of flagstones.

The thick beds of hard sandstone in the Millstone Grit have resisted the forces of glaciation and form plateaux of high, exposed moorland, covered with heath and upland bog, including Grassington Moor, Barden Moor and Barden Fell in the south east and Great Shunner Fell in the north west.

An outcrop of sequences of sandstones, siltstones and mudstones of Silurian age has contributed to the unique form of the Howgill Fells in the west of the National Park. Although the geological structure is relatively complex, the rocks all possess a similar resistance to erosion, which gives rise to the smooth,





1. Stepped upper slope profile near Gordale Scar

2. Linton Falls, Mid Wharfedale

3. Limestone scars and boulders on the fringes of the Orton Fells limestone plateau



Typical Dales farmstead

Darnbrook House in the limestone uplands near Arncliffe

rounded shape, which is so characteristic of these fells. Ice scouring during the last glaciation has only acted to emphasise the evenness of the slopes.

With the predominance of limestone, there are few naturally occurring water bodies. However, where the overlying Carboniferous rocks have been eroded away, inliers of the older rocks below occur often in the valley bottoms. These are in the Silurian and Ordovician mudstones, siltstones and greywacke. They form the impermeable beds that underlie Malham Tarn and can be seen in part of Ribblesdale and Crummackdale.

All the different rocks have been eroded and smoothed by glacial activity. Wharfedale and Littondale show the classic U-shape of glacial valleys. Deposits of moraine resulted in the creation of Semer Water while elsewhere boulder clay has been deposited and shaped into drumlins by the action of glaciers. The extensive drumlin field around Ribblehead, for example, is a remarkable hummocky landscape. Glacial activity over the underlying limestone has created the distinctive features of the classic glacio-karst landscape, with outcrops, scars, gorges (some with tufa deposits, as at Gordale Scar) and erratics. Underneath, revealed only by sinkholes and potholes, are some of the most extensive cave systems in Europe.

Ore deposits, principally of lead and barite, occur in fissure veins associated with faults in Carboniferous rocks. Mineralisation occurs mainly between Settle and Grassington Moor, and along Wharfedale to Wensleydale and Upper Swaledale.

1.6 Historical and cultural influences

Change in this landscape has been slow and of limited impact and as a result evidence remains of human activities from the earliest inhabitation onwards. Recent work has revealed the area to be extremely rich in archaeological remains, many of which are clearly visible within the landscape. Among the most obvious are the parallel strip lynchets on some dale sides, which are of Anglo Saxon or Roman origin.

The names of the villages and farmsteads give an indication of their origins. In the north and west Norse tribes, who invaded the area in the 9th and 10th centuries, set up large farmsteads with winter and summer pastures often indicated by the names –sett, -thwaite and -scale. Examples include Appersett and Southerscales. Anglo- Danish names ending in –by, -thorpe, -ley, -ton, -ing, such as Grassington, tend to predominate in the south and east of the area. These settlements were commonly small villages adjacent to the open fields that all villages shared. Livestock were moved to higher ground during the summer, while the strip fields were cultivated. Evidence of this pattern can still be seen around Kettlewell and Starbotton in Wharfedale in the long, narrow, walled enclosures from the original strips.

The most obvious historic feature of the Dales is the network of walled fields that spreads across all valleys and hillsides. The fields close to the settlements are small, often irregular, and date back to the 17th century or earlier when the open field system gave way to a system in which each villager farmed a smallholding. These smallholdings consisted of a few fields in the valley bottom and on the side slopes, with a barn for the over-wintering of a small herd of cattle, resulting in the numerous scattered field barns. Walled tracks were created, leading up from the valley bottom to the fell tops, giving access to the open moorland for summer grazing. Larger enclosures resulted from the period of Parliamentary Enclosure, from the 18th century onwards, whilst the largest enclosures, defined by long, straight walls striding across the rugged hilltops, arose from later enclosure still, in the 19th century. These effectively enclosed the majority of land leaving only small fell tops as open grazing land, particularly in the north.

Activities other than farming have also influenced the landscape. Lead mining has long been an integral part of the primarily agricultural way of life in the Dales with records of mining in Roman times at Greenhow. In the 18th and 19th centuries, when the population was probably at its highest, many farmers combined working in the local mine with running a smallholding. The mining was always small scale, but evidence of it can still be seen, from the ruins of smelting mills and chimneys to bell pits and spoil heaps, notably in Swaledale and Arkengarthdale and above Grassington in Wharfedale. Small limekilns built into the hillside are also common. Thin coals in the Millstone Grit were worked locally on a small-scale, for example at Fountains Fell. Today, the primary mineral extraction is the quarrying of limestone and gritstone.

Transport also played its part and today the remaining network of stone wall lined roads and tracks are a legacy of the old routes of sheep droves, coal lanes and packhorse tracks. The Settle-Carlisle railway, opened in 1876, runs up Ribblesdale and continues northwards through the landscape, often in steep cuttings but also passing over huge viaducts, the most spectacular being the 24 arch viaduct at Ribblehead.

The Dales has long attracted artists and writers, the most famous being JM Turner, who toured and sketched here in 1816. There is also a striking painting of Gordale Scar, painted by James Ward in 1817. Adam Sedgewick (1785-1873), the geologist, was based in Dentdale and Reginald Farrer (1880-1920) a botanist who brought many exotic plants to England, was born and brought up at Ingleborough Hall, Clapham. The poet Thomas Gray visited Gordale Scar in 1769 and

the first tourist guide for the area (Aysgarth Falls) was written by Bishop Pocock as early as 1751.

1.7 Buildings and settlement

The marginal agricultural character of the Dales has ensured that the area has always been sparsely populated. During the 12th and 13th centuries, the large northern monasteries, in particular Fountains and Jervaulx Abbeys, extended their influence and established outposts in the Dales from which to manage their extensive sheep runs. But it was not until their dissolution in the 16th century and the establishment of freeholders who began to prosper, that substantial farmsteads were built. It is the vernacular domestic stone buildings of the farmsteads and small villages from this period that give the area much of its character. Always built in local stone, Millstone Grit sandstone or Carboniferous limestone, with sandstone flags for roofing; the farms, barns and villages appear to have grown organically out of their landscape. The YDNP Design Guide[6] provides more detail:

The type of stone used generally reflects the underlying geology of the area and, more than any other component, the use of local stone establishes the character of the building and its relationship to the landscape and the built environment. However, in some areas there is an occasional mix of other materials brought in historically from further afield by the railways, particularly in Wensleydale and Ribblesdale.

One of the defining characteristics of the National Park is the homogeneity of its built environment. This is due to the survival of old building traditions, the use of a limited palette of materials and the fact that modern building materials, techniques and architectural trends have made little incursion into this remote rural area.

Dales settlements are concentrated in the dales; the moorland areas are largely devoid of settlement although there are exceptions in specific areas of moorland that have been worked for minerals. The pattern of Dales settlements and the orientation of vernacular buildings is also distinctive, with buildings aligned to protect windows and doorways from the prevailing wind and weather. The layout of settlements may be influenced by natural or man-made features (eg. linear settlements), by the need for defence (eg. around a village green), or to avoid wasteful incursion into surrounding farmland.

Some farmhouses and village buildings with limewashed stone or white render stand out locally as landmark buildings. By contrast, churches tend to be unobtrusive with chapels a feature of many villages.

1.8 Landcover

Figure 4 shows variations in landcover throughout the YDNP region.

Upland areas are predominantly acid grassland and blanket bog, with smaller areas of heather grassland and some heather towards the east and south-east of the National Park. The dales and lowlands are predominantly improved grassland. The landcover map shows that broadleaf woodland cover is very limited at the scale of the National Park; the extensive conifer plantations in upper Langstrothdale are clearly shown, along with plantations on the limestone/gritstone moors between Wensleydale and the Cumbrian Dales (Garsdale and Dentdale).

The traditional system of farming, which relies upon grazing spread between the fertile valley and the upland rough grazing, has created the distinctive pattern of land cover. Flocks of sheep were grazed on the hill tops in the summer and brought down to the sheltered valley bottom in winter and for lambing in the spring. A few cattle were over-wintered in the field barns and fed with hay. Their manure is used to fertilise the hay meadows. Stock was moved out of the valley grassland onto the hills in late spring to allow crops of hay to be produced from the grassland. This system has resulted in the exceptionally beautiful, flower rich meadows in the dales combined with the rough grazing and moorland at higher altitudes.

Pressure of grazing including the practice of allowing livestock to find shelter under trees where they graze out any regenerating trees or shrubs has prevented the development of any substantial green cover. The woods that remain are remnants of the formerly more extensive ancient, broadleaved woodland now confined to steep valley sides. In such difficult conditions, tree growth is slow and the canopy tends to be very open, allowing the development of a rich ground flora.

Extensive areas of moorland, particularly to the east of Wharfedale and in the north (Swaledale), are managed for grouse shooting and are some of the prime grouse moors of England. Here the heather is carefully managed by controlled burning, creating a heather mosaic of different heights and ages. In the west where the rainfall is higher, the moors are covered by blanket bog, with the typical vegetation of heather and cotton grass.

On the limestone, pastures of close-cropped grass on thin soil support a range of flowers, including mountain pansy. Where underground water seeps out, flushes occur which give rise to a rich wetland flora.

1.9 Tranquillity and dark skies

As Figure 5 shows, the majority of the YDNP has high levels of tranquillity, reflecting its strong rural character, low population density and the relative remoteness of many dales, particularly in the most elevated parts of the Dales. The tranquillity map for the whole of England[7] shows just how tranquil the Yorkshire Dales (together with the North Pennines) region is relative to the rest of the country - even though it is close to some large urban conurbations.

The Yorkshire Dales is also one of the best places in the country to see stars, because of the low light pollution levels and clear horizons. Figure 6 shows data for 'Night Blight' across the YDNP and surrounding region[8], which has been prepared using interactive satellite maps of England's light pollution and dark skies. Figures 5 and 6 are on page 10.

The value of experiencing a true sense of tranquillity, solitude and remoteness and of opportunities to appreciate dark night skies are recognised as two of the Special Qualities of the YDNP.





Above: Upper Wharfedale - U-shaped valley and historical stone walls

Below: Arncliffe - Village green fringed with gritstone cottages and barns

6 Yorkshire Dales Design Guide, YDNPA, 2016

7 CPRE, Tranquillity Map: England, 2007

8 CPRE, Night Blight 2016: Mapping England's Light Pollution and Dark Skies, 2016

Figure 4
Landcover

Raster Data: Centre for Ecology and Hydrology (provided to YDNPA under licence

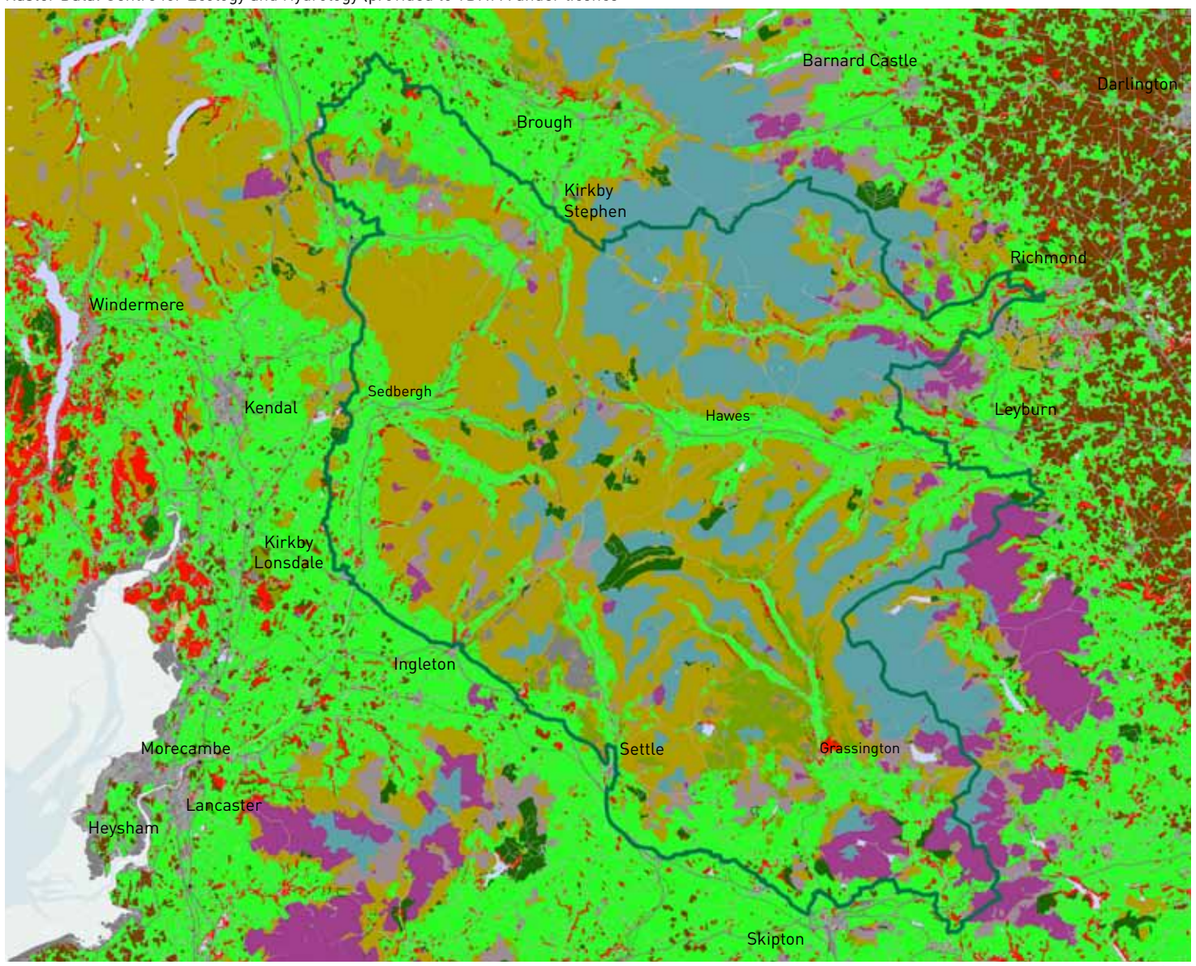
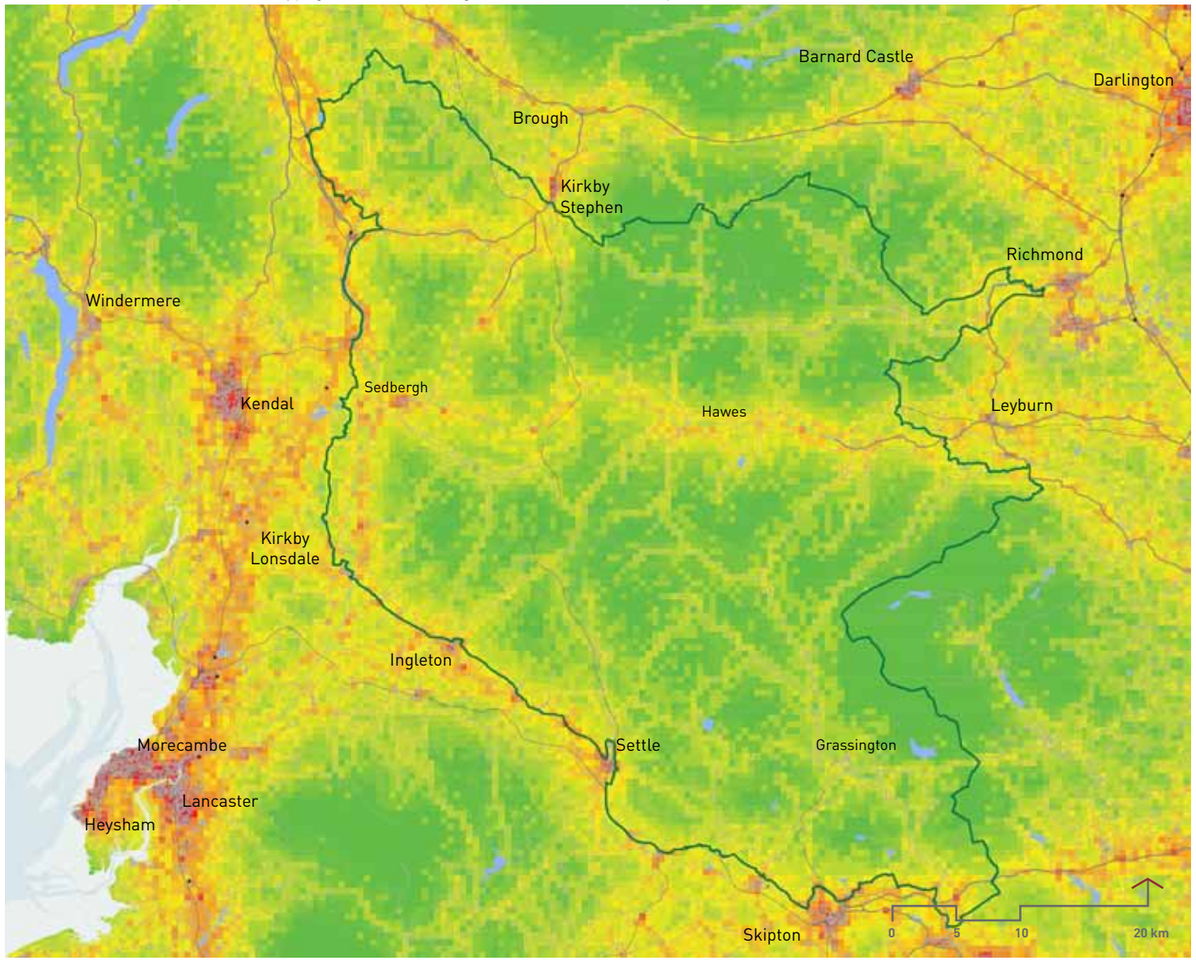


Figure 5
Tranquillity

National Tranquillity Mapping Data 2007 developed for the Campaign to Protect Rural England and Natural England by Northumbria University. © Crown Copyright and database rights 2019. Ordnance Survey licence number 100022021.



Yorkshire Dales National Park Boundary

Tranquillity

Most Tranquil

Least Tranquil

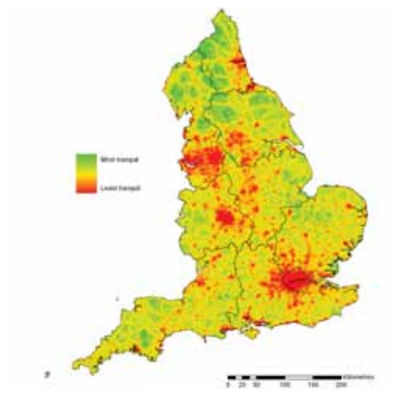
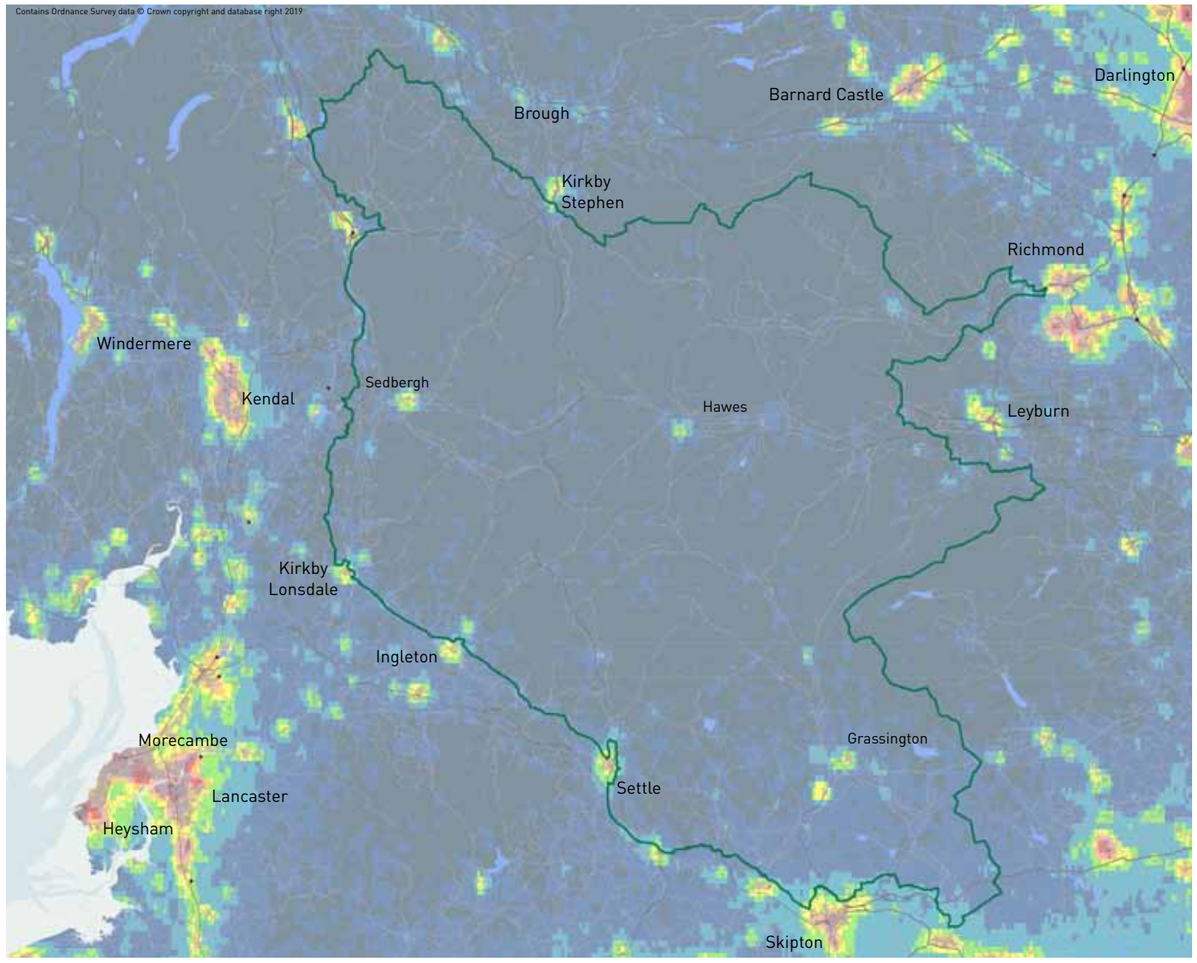


Figure 6
Dark skies

Raster Data: Council for the Protection of Rural England (provided to YDNPA under licence



Yorkshire Dales National Park Boundary

Dark Skies (Nano Watts/cm²/sr)

- >32 (brightest)
- 16-32
- 8-16
- 4-8
- 0.5-1
- 0.25-0.5
- <0.25 (darkest)

2 Landscape character

2.1 The Yorkshire Dales landscape

The unique character of the area stems from the characteristic pattern of underlying geology and a distinctive pattern of pastoral farming, which has shaped the landscape for centuries. The relatively high altitude, short growing season and high rainfall has meant that the area has always had limited possibilities for agriculture, which is restricted to the rearing of livestock. A self-contained farming system, of small holdings based upon a flock of sheep and a few cattle, providing its own winter feed needs and using all grades of pasture, rough grazing and moorland to the fullest extent, has created the landscape and is an integral part of its character.

The close relationships between rock types, landform, climate and the resulting history of man's activities can be clearly seen in this landscape. Change has been slow and relatively limited in its effects and, as a result, evidence of man's activities has survived, from the earliest periods onwards, creating an overwhelming sense of continuity with the past.

The landscape is characterised by contrasts, especially between the dales below and the moors above. In the dales the environment is more sheltered and there are intricate patterns of walled fields, containing meadow grasses and wild flowers.

Small villages and farmstead, built of local stone, are tucked into sheltered corners, often with clumps of trees protecting them from the worst of the elements. On the dale sides the network of walls continues with scattered stone field barns often appearing as distinctive features. The steepest slopes are frequently marked by the presence of sparse woodlands or sometimes open rock scree. Fast-flowing streams tumble down the slopes forming dramatic waterfalls where the harder rock is rougher and coarser. On the fell tops the grassland gives way to sweeps of heather moorland and cotton grass bog. Everywhere there are dramatic views of characteristic combinations of hillside, valley walls and barns, punctuated by outcrops of rock, streams and trees, and enlivened by the colours and textures of wildflowers. This is the essence of the Dales landscape.

The area has a physical and cultural unity, and yet displays significant variation within its landscape. The



The floodplain of the Upper River Eden and Wild Boar Fell, Mallerstang

glaciated karst landscape of the Great Scar Limestone dominates the landscape in the south and west notably around the Ingleborough area. The Craven faults are responsible for dramatic parallel scars in the south, giving rise to well known features such as Giggleswick Scar and Malham Cove. The rocks of the Yoredale series overlie the Carboniferous Limestone and form the moorland hills and plateaux, which are divided by the intervening limestone dales.

The moors are high and wild, with extensive areas of rough grazing and very large, often hardly visible, walled enclosures. These high summits dominate the skyline above the dales, providing extensive views out over the enclosed land below and dividing one dale from another. There are extensive areas of heather moorland, especially in the north (Swaledale) and in the south (Barden Moor). Here the Millstone Grit outcrops, notably at Simons Seat. The gritstone also influences the character of stone walls, barns and other buildings, distinguishing them from some of the westerly moorland areas.

In the north west of the National Park, the Howgill Fells comprise an unusual and dramatic group of steep sided, rounded hills, sharply incised by a number narrow rocky of gills to which small woodlands cling. Reaching heights of over 600m, by their remarkable form they stand out noticeably from the surrounding land. A large part of the Fells consist of relatively high and exposed open moorland that provides uninterrupted views. In places the gently sloping ridge tops are covered by poorly drained moorland with blanket bogs underlain by deep peat. Some of the steeper slopes are covered with loose scree and small streams cascade down the gills, occasionally forming dramatic waterfalls, notably Cautley Spout. On the better drained side slopes rough grassland, bracken and small patches of heather are heavily grazed by sheep and cattle. The fells are unenclosed, but drystone walls separate the open common land from the rough pastures on the lower slopes. Isolated farmsteads occur on the lower slopes or in the valley bottoms, sheltered by clumps of trees.

Each of the dales has its own distinctive character. In the north, Swaledale is perhaps the typical dale valley, with its sweeps of heather moorland on the fell tops, its pattern of walls and field barns, flower-rich meadows and small tight knit villages. Wensleydale is wider, with a more varied landform which creates some very enclosed areas, Bishopdale is broad, with lines of trees and small plantations cutting across the dale, while Widdale has a rather bleak and forbidding



Barden Bridge, Wharfedale



Pen-y-Ghent from near the Winskill Stones, above Ribblesdale



Former lead mine shaft, Grassington



Striking networks of drystone walls in upper Malhamdale

Key characteristics of the Yorkshire Dales landscape

- Large-scale upland landscape of high exposed moorland dissected by dales that are often deep.
- Striking contrasts between wild, remote moors and sheltered dales, each with its own character.
- Marginal agriculture arising from relatively high altitude and poor climate, creating a landscape of little or slow change.
- Visible evidence of historical land use arising from conservation of features from all periods.
- Millstone Grit plateaux of high moorland in the east contrasting with the Yoredale Series of alternating limestone, sandstone and shales in the north and west. The latter form typically stepped profiles to dale sides.
- Great Scar Limestone in the south and west, giving rise to classic glacio-karst landscape with cave systems, outcrops, scars, grills, gorges and pavements.
- Variation is provided by the distinctive steep sided smooth and rounded hills of the Howgill Fells, a wild and remote area, which has formed from an outcrop of sequences of sandstones, siltstones and mudstones of Silurian age.
- Pattern of bleak sweeping moorlands of heather or extensive blanket bog on plateaux, with rough grazing on upper slopes, permanent pastures on dale sides and fields cut for hay or silage on more fertile land in the bottom of the dales.
- Very strong patterns and drystone walls, with very large rectilinear enclosures on most fell tops, much smaller enclosures in dales, and often older, irregular patterns around settlements.
- Numerous small stone field barns in all the dales but most notable in Swaledale, Akengarthdale, Littondale and upper Wharfedale.
- Vernacular character of gritstone and limestone buildings including also scattered farmsteads, particularly in the north and west, and small nuclear villages on valley floors, related to river crossing points and transport routes.
- Very limited tree cover, confined to villages, sycamore clumps around farmsteads, stream sides and steep slopes.
- Sparse, ancient broadleaved woodlands on steep gill and dale sides.
- Widespread remains of historic mineral working especially lead mining.


Hebden, Wharfedale


Village green, Burnsall


River Rawthey near Millthrop

character with rough grazing predominating and a number of rather incongruous conifer plantations. Wharfedale and Littondale demonstrate the typical Dales character of strong patterns of walls and field barns on the valley floors, with woodlands, surviving on valley sides, and compact villages of stone tucked into the hillsides next to winding rivers. Coverdale is quiet, dominated by rough grazing, with many small streams cutting down the hillsides while Dentdale, in the north west, shows the influence of wetter, milder conditions, with small fields bounded by hedges, rather than drystone walls, contributing to a sheltered, softer, more domestic landscape.

Dales in the south and west reflect the influence of the underlying limestone. They are wide and open, with rugged outcrops of light coloured rock and pale green pastures, creating a distinctive combination of light and colour. Ribblesdale is affected by large quarries on the dale sides, while Chapel-le-Dale reveals the underlying rock dramatically, with broad shelves of limestone on both sides. The hillsides, walls, and isolated buildings all have a unity of colour that creates a sense of openness and light.

2.2 Landscape classification

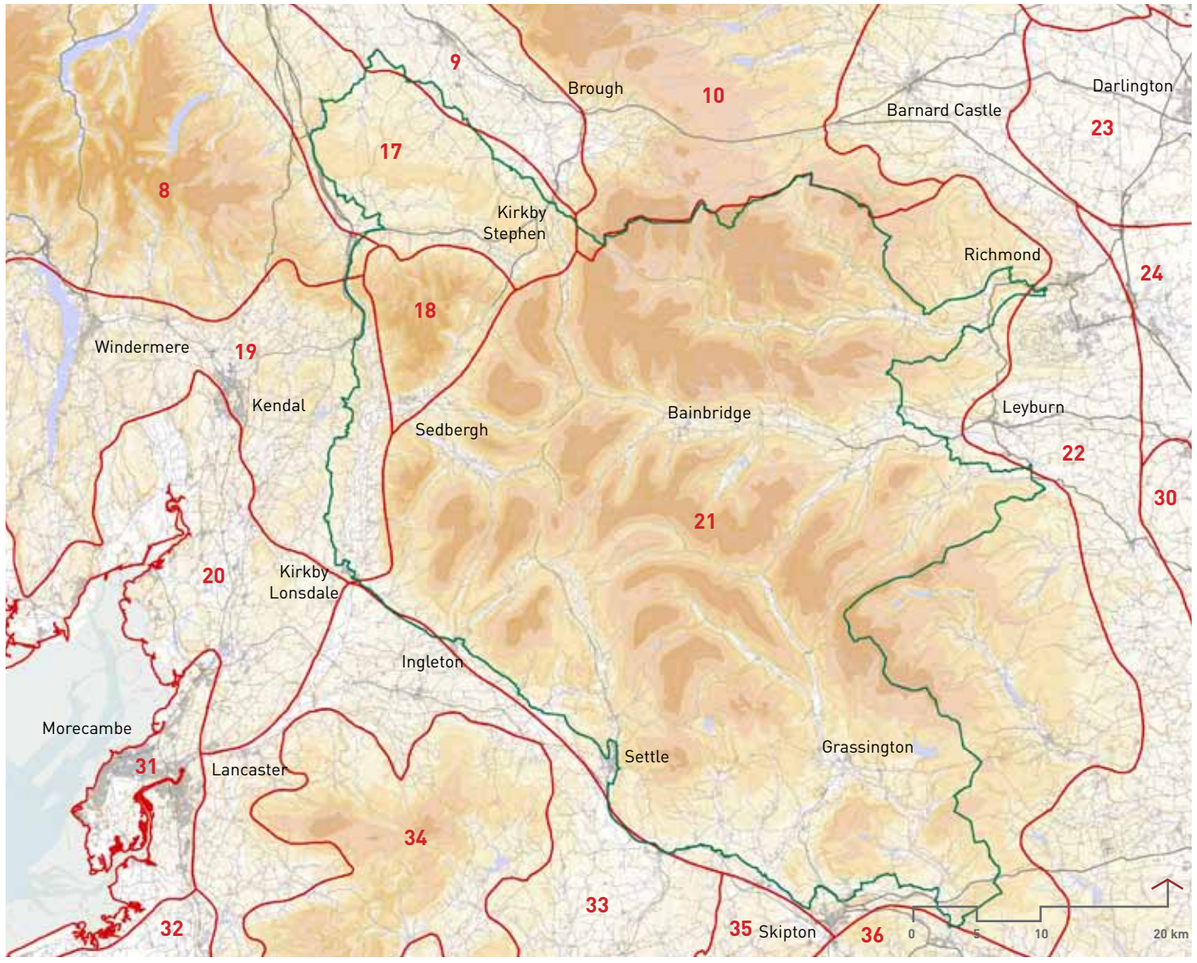
The process of landscape character assessment involves identifying:

- **generic landscape character types**, which share broadly similar combinations and patterns of geology, topography, vegetation and settlement and can be found in different areas that share such physical characteristics; and
- geographically unique **landscape character areas** with their own particular identity.

LCAs can be undertaken at any scale. It is useful to consider the hierarchy of landscape character types and areas that are described at a national/regional scale, as National Character Areas (NCA) and within the existing LCAs that have been adopted by neighbouring local authorities so that the YDNP LCA fits logically within this overall framework and the boundaries of landscape character types and areas are consistent with those that have already been defined.

Figure 7 shows the NCAs at a regional scale. Natural

Figure 7
National Character Areas



Yorkshire Dales National Park Boundary

National Character Areas

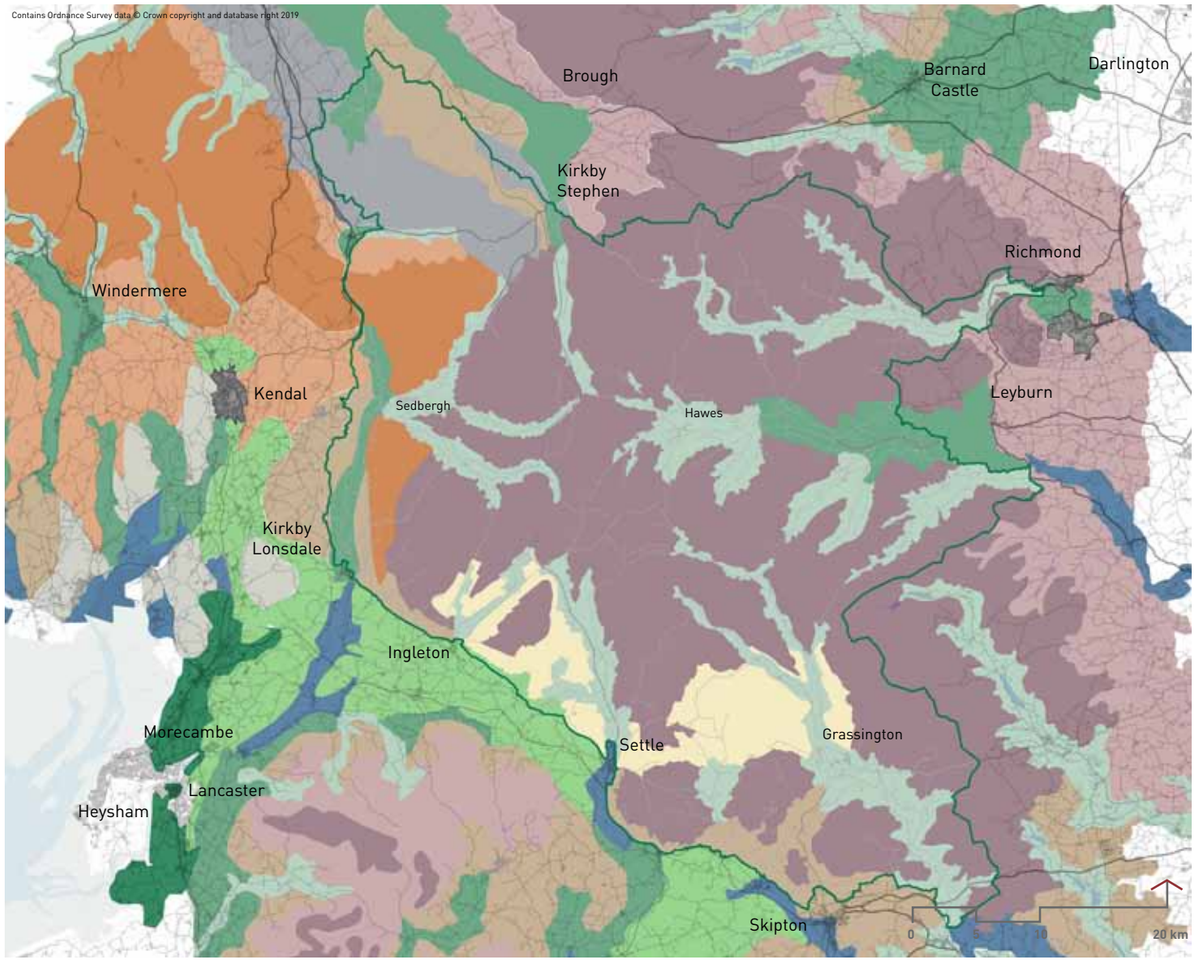
Topography

- Above 500 m
- 400 - 500 m
- 300 - 400 m
- 200 - 300 m
- Below 200 m
- Lakes

National Character Areas

8	Cumbria High Fells
9	Eden Valley
10	North Pennines
17	Orton Fells
18	Howgill Fells
19	South Cumbria Low Fells
20	Morecambe Bay Limestones
21	Yorkshire Dales
22	Pennine Dales Fringe
23	Tees Lowlands
24	Vale of Mowbray
30	South Magnesian Limestone
31	Morecambe Coast and Lune Estuary
32	Lancashire and Amounderness Plain
33	Bowland Fringe and Pendle Hill
32	Bowland Fells
35	Lancashire Valleys
36	Southern Pennines

Figure 8
Landscape character types across the YDNP and surrounding areas



England has prepared a profile for each NCA[9], which describes landscape character, identifies key drivers for change and provides broad analysis of each area's characteristics and ecosystem services.

There are existing LCAs for all the local authority areas that border the YDNP. The relevant publications are:

- County Durham Landscape Character Assessment, 2008
- Cumbria Landscape Character Guidance and Toolkit, 2011
- A Landscape Strategy for Lancashire, 2000 (includes Craven District)
- North Yorkshire and York Landscape Character Assessment, 2008
- Lake District National Park Landscape Character Assessment and Guidelines, 2008
- Landscape Character SPD, City of Bradford, 2008

Each of the above LCAs classifies its landscape into landscape character types and landscape character areas, generally with landscape character types providing an overall larger scale framework for more local landscape character areas. The existing LCAs have been prepared at a variety of scales and for different purposes. Figure 8 provides a simplified classification of landscape character types at a regional scale. Based on the broad patterns of geology, topography, drainage and land uses, the classification shows 'at a glance' how the existing regional landscape types fit together across this part of northern England. Annex A presents a map to show the relationship between these regional landscape character types and the detailed classification of landscape character types in each of the existing published landscape character assessments for the local authority areas that border the National Park.

Figure 8 shows how the pattern of regional landscape character types extends across the YDNP. The Gritstone uplands of the central Yorkshire Dales extend northwards along the 'spine' of the Pennines and eastwards into parts of North Yorkshire and the Nidderdale Fells. However, the Howgill Fells in the western part of the YDNP are an extension of the older Silurian uplands which form the Lake District. The Orton Fells in the north-west of the YDNP are part of the limestone uplands that to the north of the Lake District, forming the southern slopes of the Eden River valley. The exposures of Great Scar Limestone in the southern part of the YDNP are classified as a separate landscape character type as the dramatic limestone formations in this area are very different from the limestone fells to the north.

Figure 8 also shows the distribution of upland dales, the broader farmed dales and valleys and the drumlin lowlands that extend to the south and west of the YDNP.

The LCA for the YDNP is based on landscape character areas, rather than landscape character types, reflecting the way that the landscape of the Yorkshire Dales is perceived and distinctive identity of each of the dales. The upland landscape character areas are defined at a large scale, with the main upland blocks dissected by the relatively small-scale landscapes of the dales.

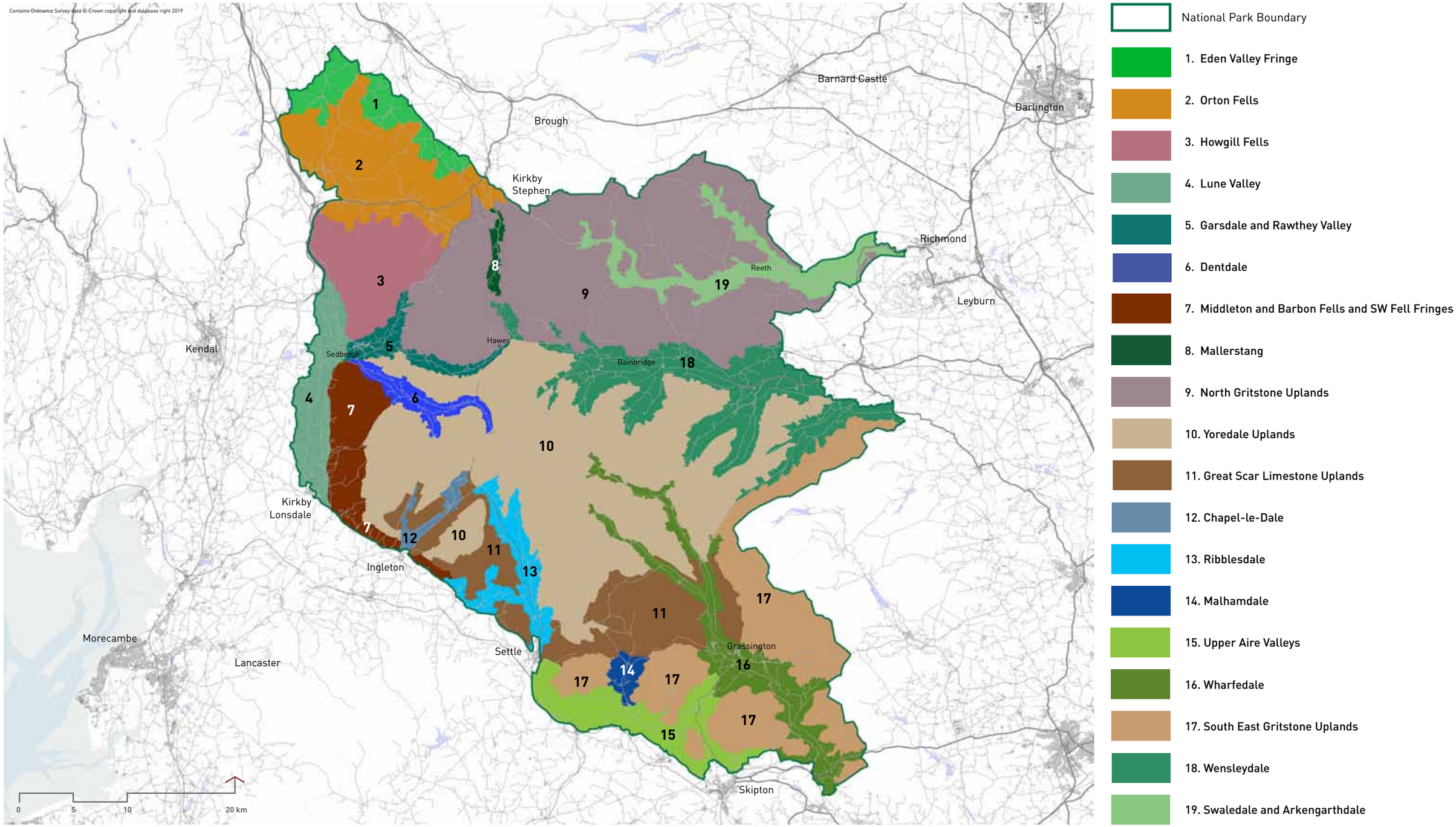
Figure 9 (on page 16) shows the 19 landscape character areas that have been identified to provide an appropriate structure for the LCA. Separate reports, for each of these landscape character areas, describe and map their distinctive landscape character and special qualities and note key issues, opportunities and forces for change. A comparative analysis to show the contribution made by landscape elements and features to landscape character across the YDNP is provided in Annex B.

The landscape character areas identified for the 2002 YDNP LCA have generally been retained (with only minor boundary changes) but many of the small landscape character areas within the dales and moorland fringe landscapes have been amalgamated to form larger units; the detailed variations in landscape character that were mapped and described in the 2002 study have informed this current LCA and this material remains available on request from the YDNPA.

Drawing on the detailed landscape character and analysis work that was undertaken in advance of the extension of the YDNP boundary[10], the LCA includes the western YDNP extension areas which were excluded from the original study.

[9] https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles

Figure 9
Landscape Character Areas



3 Forces for change

3.1 A changing landscape

The Yorkshire Dales, by virtue of its National Park status, tends to avoid the sort of major built development pressures that occur in other parts of the country. However, all landscapes are always in a state of flux and the landscape character we see today is a product of the current balance between physical, climate, demographic and economic factors; changes in any one of these will have knock-on effects.

This section of the Landscape Character Assessment explores the complex web of pressures, trends and constraints on the landscapes of the YDNP, recognising that change may bring opportunities as well as threats and that there will sometimes be a case for encouraging changes in landscape character.

Section 3.2 describes the principal forces for change that are most pertinent in the YDNP today and predicts the possible implications of these trends and drivers for change.

The key overarching forces for change are:

- Demographic change
- Climate change
- Changing public attitudes; and
- Economic drivers

Sections 3.3 and 3.4 predict the potential effects of selected forces for change on YDNP landscapes and collates some of the guidance that already exists to help manage the predicted changes in a positive way, to conserve landscape character and the special qualities of the National Park.

This analysis is divided into three categories:

- Development
- Land management; and
- Recreation management.

The aim is to demonstrate how change can be guided in ways that conserve the scenic quality and recreational value of the National Park, while maintaining a healthy balance between the various competing interests.



Ribblesdale, view northwards from near Winskill Stones - Knight Stainforth Hall Caravan and Camping Park is partially enclosed by trees in the centre of the dale; the massive quarries (eg. Horton, Arcow and Dry Rigg) have sliced into the daleside to the north

3.2 Principal overarching forces for change in the YDNP

3.2.1 Demographic change

The proportion of people of working age who live in the National Park is relatively low and the imbalance between those aged over 65 (26%) and those under 15 (15%)[1] is very high. The projection is that this imbalance will continue over the next 20 years. The implications of this are:

- **Decreasing demand for permanent residency housing.** Demographic change can be influenced however by planning for cumulative growth of appropriate new housing and the development of suitable land for economic development
- **An aging farming population,** which could bolster pressures for farm diversification (if farms are purchased as second homes and/or converted to provide visitor accommodation) or it might encourage the amalgamation of small farm units to increase profitability and economies of scale. There is also a risk that an aging farm population could lead to a loss of traditional skills and knowledge and increased decline in management and conservation of characteristic Dales landscape features, such as drystone walls.
- **Increased levels of commuting into the National Park**, in order to maintain existing jobs and services; given the characteristic dispersed pattern of settlement, economic activity is likely to be higher in more accessible areas, towards the periphery of the National Park, and in areas with better access to public transport.
- **Under-use of traditional buildings** and potentially increased levels of abandonment and ruination, not least because of the high costs of restoration and maintenance. There are estimated to be some 4,250 'field barns' (located outside the farmstead) in the YDNP. Over 2,000 of these (45%) are assessed as being in 'poor' or 'very bad' condition[2]. YDNPA encourages the restoration and re-use of traditional buildings where the buildings and their locations have capacity to absorb them[3]. The highest rates of conversion and re-use are found in the Craven Dales (Wharfedale, Malhamdale, Ribblesdale, Ingleton and Clapham). This may be because these parts of the National Park are more accessible and have higher real estate values than other more remote areas, but the type of traditional barn found in these areas may also be a factor as traditional barns in the Craven Dales area are often a larger cart-entry 'combination' barn, as opposed to the general smaller 'cow house' barn tradition of the northern Dales.

3.2.2 Climate change

Higher temperatures, a rise in sea levels, more frequent extreme weather and an increase in the number of extreme flooding and drought events have already prompted policy action by central government and will be a significant driver for change within the National Park. Possible implications of the drive for adaptation to climate change are:

- **Agri-environmental schemes** – Current trends suggest that there will be fundamental changes in the way agricultural subsidies are calculated, with a shift towards "public money for public goods", including things like carbon capture and natural flood risk management. In areas like the National Park, which have the most potential to produce public benefits, this could encourage a more sustainable pattern of livestock farming, focused on producing food in ways that conserve and manage landscape features and habitats that are characteristic of the YDNP, such as drystone walls and meadows.
- **Biodiversity net gain and/or biodiversity off-setting** as mitigation for development within and perhaps also outside the YDNP may also lead to more extensive habitat restoration projects. Of particular relevance in the context of the YDNP are large scale peatland restoration projects, which would generate significant benefits for carbon storage and water quality.
- **Changing biodiversity** – changes in climate will lead to changes in patterns of native habitats and species, and increased vulnerability to disease and invasive species. For instance 'Ash Dieback' (see below) and Heather Beetle are current threats. Climate change is also causing an increased risk of drought



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Approach to Long Preston from A65 - Pressures on roads are more intense on the fringes of the National Park



Farm buildings converted to residential use in Hetton

1 Office for National Statistics, 2012

2 Field Barns, A Wasting Asset, R White, 1988

3 Policy L2 – re-use of traditional farm buildings, Yorkshire Dales National Park Local Plan, 2015-2030



New woodland planting on Oughtershaw Side, NW of Langstrothdale

and wildfires on upland moors, which cause damage to internationally important blanket bog habitat.

- **A planned expansion of woodland** in response to strategic policy commitments for a reduction in carbon emissions and/or to help reduce flood risk in larger settlements downstream. Since only 3.7% of the National Park is currently covered by woodland, there is considerable scope for expansion of native woodland in ways that will add texture to the landscape. Depending on the siting, design and species types, there may be a noticeable change in landscape character.

- **The Nature Recovery Network** is a major commitment in the UK Government's 25 year Environment Plan[1]. It is intended to improve, expand and connect habitats to address biodiversity decline. The policy commitment will facilitate landscape scale habitat restoration and creation (beyond the core protected sites), with ecological corridors and stepping stones to support lifecycle requirements and the movement and migration of species. Nature Recovery Areas will be zones of focused activity and investment to improve and extend the Nature Recovery Network, with new habitat, buffer areas and sustainable use areas.

- **Increased demand for renewable energy projects** – To date there has been strong growth in the biomass sector, which accounts for over 50% of renewable energy generation in the YDNP. There is likely to be ongoing pressure for small-scale renewable energy projects, including biomass products, wind turbines and solar panels; large scale projects will not be approved within the YDNP, but there is a possibility that they may be implemented on the periphery and within its landscape setting.

- **Water resource management** – There is a growing recognition that measures to increase water storage in the upper catchments of rivers are an effective way of reducing flooding downstream. This is an important driver for policies that support schemes for blanket bog restoration on the moorland uplands and the creation of washlands and wetlands on the floodplains of rivers such as the Eden, Lune, Ribble, Swale, Ure and Wharfe, which flow through major urban areas downstream. At a local scale, more erratic weather patterns and seasonal drought may lead to increased demand for farm reservoirs.

3.2.3 Ash Dieback

Ash Dieback disease will have a significant landscape impact across the Dales as ash is a dominant species in many upland woodlands and is also an important field and hedgerow tree. It will result in a more open and exposed landscape character, with a fundamental



Ash dominated semi-natural woodland at Lower Grass Wood, Wharfedale, which is being managed to maximise resilience in the face of Ash Dieback disease

[1] A Green Future: Our 25 year Plan to Improve the Environment, Defra, January 2018; Nature Recovery Network Discussion Document, Defra, April 2019

change to the pattern of the landscape in areas where ash is a dominant species.

The impacts of the disease will depend on the variety of species present and the scope for natural regeneration, which will in turn be influenced by stocking levels and stock-proof fencing.

Ash is also an important species in fields and field boundaries throughout the 'barns and walls' landscapes, such as Swaledale, Upper Wensleydale and Wharfedale, where it is found alongside sycamore in small groups and as individual mature specimens. Although sycamore is an imported (non-native) species, it may be a suitable replacement, but planting a wider variety of tree species will future-proof the Dales landscape against the possible impacts of such diseases long term.

3.2.4 Changing public attitudes

One of the statutory purposes of National Parks is to promote opportunities for the understanding and enjoyment of their special qualities by the public. The YDNP Management Plan sets out ambitious objectives for ensuring that the YDNP is an open, welcoming place with outstanding opportunities to enjoy those special qualities, including its natural beauty. Given the importance of the visitor economy[1], shifts in public opinion can be important drivers for change. Relevant examples are:

- **Changing expectations and visitor profiles** – there are trends towards a wider range of visitors – with more active older visitors, activities for extended families and a more multi-cultural society. Visitors expect more immersive experiences, with personal, tailored experiences and opportunities to become part of a place and not just to 'see it'[2]. There will be increased investment in participatory activities, large scale festivals and events, family-friendly activities (off-road cycling routes, farm visits) and educational trips, outdoor activities and environmental conservation activities.

- **Conserving tranquillity and dark skies** – there is strong public demand for access to nature and for conserving the remaining relatively tranquil and remote areas of the country. Visitor surveys suggest that the peace and tranquillity of the YDNP are an important attraction for visitors[3] and the special qualities of the YDNP recognise the value of 'Extensive areas where a true sense of tranquillity, remoteness and solitude can still be found'; 'The natural sounds of wind, water and birdsong' and 'Dark night skies'[4]. The YDNP's visitor management strategy[5] seeks to safeguard these special qualities and there are plans to secure Dark Skies Reserve status for the central part of the YDNP within the next two years - a designation which will, in turn, prompt policies to reduce light pollution and conserve a sense of remoteness.

- **Re-wilding projects** – the reversion of agricultural land to a more natural state. There is strong interest nationally in this concept and, although there are no specific re-wilding projects currently planned within the YDNP, this is an influential pressure for landscape change.

- **Attitudes to grouse shooting** – The value of grouse shooting across the Yorkshire Dales is estimated at about £6m per annum[6]. The majority of the upland moor habitat in the YDNP is managed for red grouse shooting, resulting in a mosaic of heath, scrub and bog. Public pressure to reduce or cease grouse shooting may lead to a significant and rapid change in the way the upland moors are managed.

3.2.5 Economic drivers for change

Changes in land use and the economy are underpinned by the demographic trends and policy shifts described above, but pressures relating to some specific economic sectors are relevant considerations within the context of the YDNP:

- **Changes in agriculture** – upland livestock farming is economically marginal, with most farms


Ad hoc roadside parking on Goredale Lane


Casterton Golf Course


Backpackers at Stone House, Dentdale

1 Special Qualities, Special Experiences, YDNPA, May 2019 – Section 6 Tourism. The Scarborough Tourism Economic Activity Monitor (STEAM) suggests that in 2017 there were 5 million visitor days to the National Park, and 13.5 million to its wider area of influence, day visit were 4 and 8.5 million respectively

2 Special Qualities, Special Experiences, YDNPA, May 2019

3 Visitor Survey, 2013

4 YDNP Management Plan, 2018

5 Special Qualities, Special Experiences – An integrated access, recreation, visitor management, diversity and tourism strategy, Draft YDNPA 2019

6 Ecosystem Service Provision in the Yorkshire Dales National Park, D.R. Shaw Consultancy, 2017.



Single wind turbine near Fleets



Skirwith Bridge quarry

running at a loss and dependent on the current Basic Payment Scheme (BPS) to make ends meet. Government has said that BPS will be phased out by 2027, to be replaced by a new scheme of 'public money for public goods'. This transitional period could lead to intensification of agricultural production in some areas, with increased land drainage, re-seeding and fertiliser application, larger farm buildings, and amalgamation of farms. Alternatively, there is strong evidence[7] that most farms in the Dales would be more profitable (or at least make less of a loss) if they moved towards farming livestock at the 'maximum sustainable stocking rate' (i.e. the level at which the stock can be fed naturally from grass grown on the holding). This could lead to less-intensive production, which would enhance the pattern of valuable upland hay meadows and the diverse mosaic of rough grassland, heath and heather on moorland fringes. The agricultural sector is also particularly vulnerable to changes in consumer demand or agri-environmental policy (see above).

- **Commercial forestry** – The area covered by commercial conifer plantations in the YDNP is relatively low (approximately 1.85%). There is demand for an increase in commercial forestry and this is a relevant pressure for change across the uplands throughout the YDNP.

- **Tourism** – the visitor economy is critically important to the National Park and is likely to continue to grow, with increased accommodation and visitor facilities, leading to increased pressure on car parks and recreational routes. There may be particular opportunities for growth near the larger settlements and near to newer promoted routes (eg. the Swale Trail and the planned Garsdale Moors cycle route) and sites that are used for shows and festivals. There may be opportunities for larger scale tourist facilities in former quarries (e.g. Threshfield Quarry) and in some wooded landscapes, where built facilities can be screened.

- **Mineral production** – There is not predicted to be any expansion of quarrying activity within the National Park, but the gradual restoration of former quarries provides opportunities for re-use and possible nature conservation and/or recreation projects.

- **Communications technology** – demands for improved access to fast broadband will result in pressures for more, and larger, mobile phone towers, and other communications infrastructure. Conversely, national park status offers ongoing funding opportunities for the undergrounding of overhead power lines (via National Grid's Visual Impact Provision scheme), which may be relevant in the Orton Fells LCA, near to the M6 corridor.

- **Growth related to major landowners** – The YDNP has a number of large estates and private schools (eg. the Bolton Abbey Estate and Sedbergh School) which are locally important hubs for growth and development.

- **Development on the periphery of the YDNP** – The larger towns on the fringes of the YDNP (eg. Skipton, Settle, Ingleton, Kirkby Lonsdale, Kirkby Stephen, Leyburn and Richmond) are accessible and subject to strong pressure for growth, which is likely to be economically beneficial for communities within the YDNP. However, there is also a possibility that development in some parts of the National Park periphery may have an impact on its landscape setting.

- **Highway improvements** – There may be pressures for improvements to strategic routes, such as the A685 Brough-Tebay M6 junction

- **Development related to the north-south infrastructure corridor along the M6**, immediately to the west of the YDNP. This is a nationally important infrastructure corridor which includes the M6 motorway, the West Coast Main Line railway, one of National Grid's electricity transmission lines and two National Grid high pressure gas transmission pipelines. There is likely to be pressure for new or replacement inationally important infrastructure development along this corridor, which lies between two national parks.

- **Military strategy** – The large military ranges on the northern and eastern fringes of the National Park have relatively low impact, but any changes could affect the tranquillity of local landscapes.

3.2.6 Other influential pressures for change

In addition to all the factors listed above, the condition of the YDNP landscape is influenced by a general lack

[7] Less is More: Improving profitability and the natural environment in hill and other marginal farm systems, Chris Clark and Brian Scanlon, November 2019

of investment in landscape elements and features that are 'taken for granted', as part of the cultural heritage of the Dales. Historical and archaeological sites, in particular, are at risk of neglect, decay or deterioration. The regional Heritage at Risk Register for 2019[8] records 7 listed buildings, 19 scheduled monuments and three conservation areas. The fact that the (only) two extensive Barns and Walls Conservation Areas in the YDNP are on this register highlights the severe rate of decline affecting the historic network of drystone walls and field barns which are such a distinctive component of the Dales landscape.

The principal causes for the vulnerability and decline of historical and archaeological sites include erosion of soil and ground cover due to livestock, animal burrowing (rabbits and badgers), vehicles and/or people; the weathering of building materials; encroachment by bracken and trees; and damage due to agricultural machinery or rotational burning which is undertaken as part of moorland management regimes. There may occasionally also be damage due to construction of new buildings or infrastructure.

[8] Heritage at Risk Register, Historic England – NE and Yorkshire Register 2019



Remnant of former farm buildings, Swaledale



Linear, dispersed settlement pattern near Feetham on slopes of Brownsey Moor , looking NW from High Lane

3.3 Managing landscape change in the YDNP

This section considers the potential effects of the forces for change described above in terms of where they are most likely to apply within the geography of the National Park and how they are currently managed in order to conserve and enhance the landscape character and special qualities of the YDNP.

Given the complex interrelationships between different pressures for change and the many unknown factors involved, the section focuses on the potential drivers for landscape change which are considered to be particularly relevant in the context of the YDNP. They consider where the key drivers for change are most likely to be relevant, their landscape implications and some wider opportunities for action to manage change so that it has a positive effect. Reference should also be made to the separate Landscape Character Area (LCA) reports, which describe the key natural, cultural and perceptual features that contribute to the special qualities of the YDNP and which merit conservation in relation to future landscape change.

The analysis is presented in a series of tables, which cover the following anticipated forces for change:

Development

- **Increased residential development in and around Local Service Centres and Service Villages** - more land will be allocated for residential development in towns and villages which are existing service centres as a policy response to counter the current decline in the working age population and to boost local economic growth
- **Conversion and restoration of traditional buildings for residential use**, which increases the value of degraded or abandoned farm buildings and ensures their retention in the landscape. Such conversion and restoration schemes may be undertaken as part of farm diversification projects and may support agricultural incomes as well as the local tourist economy.
- **Small-scale rural built development** – farm-related development, such as sheds, slurry stores, single wind turbines and reservoirs to support existing agricultural businesses or farm tourism and tourist-related built development, such as holiday centres and visitor centres in rural areas.
- **Large-scale rural development**, including education and leisure facilities, caravan parks and car parks, which could create changes at a landscape scale. In the YDNP, there may be opportunities for major developments as part of the future restoration of quarries which have come to the end of their licensing period.
- **Transport infrastructure development** – major highways improvement projects may be anticipated on the fringes of the YDNP and in the north west, associated with the A685 corridor. Elsewhere the rural character of the network of narrow minor roads may be altered by small-scale road works and traffic management measures.
- **Tall structures related to energy and communications development** – there are not anticipated to be windfarm developments within the YDNP, but small-scale renewable energy schemes, including individual wind turbines may occur and there is already strong demand for the development of more mobile phone masts.

Land management

- **Agricultural intensification** as a result of changes in technology and government supports, which may lead some farms to shift to more intensive livestock farming (improvements to grassland and an increased use of fertiliser and pesticides to maximise yields). In pastoral areas there has (over the course of the last decade) been an increase in silage making and loss of hay meadows. Associated with these changes is an increase in the use of heavy machinery for access, drainage and harvesting and requirements for larger buildings to secure equipment, house livestock and store feed.
- **Increase in environmentally-friendly farming** and diversification as a result of new agri-environmental schemes based on "public money for public goods", and a wider recognition that – counterintuitively - profit margins are higher on farms operating less intensively. Within the YDNP, key sectors of influence will be the extent to which any new scheme supports upland livestock farming (to manage

and enhance. upland hay meadows and other species-rich grasslands), and management of moorland (see below)

- **Changes in moorland management** - Optimum management of upland moors requires a complex and carefully monitored balance of different management practices. Moorland management is vulnerable to external policy and economic drivers for change and may be influenced by strategies for climate change adaptation (carbon storage and water management) and drives to meet biodiversity targets. Since large areas of moorland are currently managed by shooting estates, the viability of the game shooting economy – and the attitudes of the public towards it - are also factors at play.

- **Expansion of broadleaved and mixed woodland planting** – as a policy response to mitigate and counter the impacts of climate change by delivering biodiversity, carbon capture and natural flood management objectives. The YDNP Management Plan has a target to create at least a further 450 ha of native broadleaved and mixed woodland by 2024.

- **Increase in commercial forestry** – There is ongoing demand for coniferous plantations in the YDNP; this is a profitable land use, if appropriate sites can be identified and plantations sited and designed to complement existing landscape character.

- **Ash Dieback** – a fungal disease that kills ash trees and will lead to significant landscape change in the YDNP

- **Degradation of historical and archaeological sites** – the rich legacy of historical and archaeological sites in the YDNP makes a valuable contribution to landscape character and to our understanding of the culture and heritage of the Dales. However, these sites are at risk of deterioration due to a combination of neglect, soil erosion, trampling, construction damage and encroachment of trees and bracken.

- **Ongoing decline of barns, walls and field patterns** due to weathering, changes in farming practice, and of investment because of the marginal economic viability of upland farming

- **Natural flood risk management** – there may be pressures for natural river channel restoration projects and for the creation of new wetlands, temporary flood storage areas and washlands on the floodplains of rivers in the YDNP with the aim of increasing surface water attenuation and capacity to slow flow and store water in order to reduce the risk of flooding in larger settlements downstream.

Recreation management

- **Sustainable access** – unsealed multi-use routes, circular routes and connections to railway stations and public transport will provide sustainable green transport connections, with scope for increased wheelchair and family-friendly access.

- **Outdoor recreation** – there is strong demand for outdoor recreation in the stunning Dales landscape, including activities such as walking, mountain biking, horse riding, caving, paragliding, rock climbing and trail riding with recreational motorised vehicles, which can require management to protect the special qualities of the YDNP.

- **Dark skies and tranquillity** – The YDNPA recognises that the experience of being in landscapes that are tranquil, with qualities of wildness, proximity to nature and dark night skies is increasingly rare and highly valued. There is a risk that these special qualities of the YDNP will be eroded by incremental development which increases levels of activity, noise, lighting and development that has an artificial character (power lines, wind turbines, communication masts, coniferous plantations, roads, railways and large buildings).



The subtle pattern of wooded gills and dispersed settlement within a narrow, enclosed dale, which could easily be disrupted by inappropriate development of buildings, infrastructure or forestry

Upper Dentdale, looking east from near Slack

3.4 Potential effects of selected forces for change on YDNP landscapes and existing guidance

3.4.1 Development - potential effects on landscape character and the special qualities of the YDNP

Increase in the amount of land allocated for residential development, in order to boost local economic growth and counter the current decline in the working age population in the YDNP. The release of more land for residential development would also address issues of excess infrastructure capacity (contributing to the maintenance of essential services) and increased levels of commuting into the National Park.	
Landscape implications New residential development in existing settlements may affect their distinctive landscape settings, including key approaches, inward and outward views, woodland, trees, river corridors and open spaces. It may bring positive change, with opportunities to regenerate degraded sites and to improve existing harsh relationships between settlement edges and the wider landscape. However in some cases, it may unnecessarily, erode rural character and tranquillity or result in the removal of key, mature landscape features like hedgerows and hedgerow trees. **YDNP areas most likely to be affected by settlement expansion** Allocations are most likely to be concentrated in and around the larger settlements (Local Service Centres) and Service Villages, (see the Settlement hierarchy table in para 2.16 of YDNP Local Plan), where there is existing infrastructure and a range of services to support sustainable development. Market demand, and pressure for new built development is likely to be highest in settlements close to the periphery of the National Park which are relatively accessible and close to the principal transport corridors and larger towns. **Opportunities:** **Development briefs for larger residential allocations** which set out landscape-led design principles to integrate development would ensure new built development is carefully sited and designed so that it enhances local landscape character and conserves the special qualities of the YDNP **Positive design of gateway sites within the landscape setting of the YDNP** through collaboration with adjacent local authorities to identify and bring forward high quality development which supports economic growth and can be integrated within the sensitive landscape setting of the YDNP **Design competitions for key sites** to encourage and demonstrate innovative, high quality design which reflects the special qualities of the YDNP	**Further advice:** **Yorkshire Dales Design Guide, YDNPA, 2016,** which is part of the Yorkshire Dales Local Plan provides advice on the siting and design of new development in the YDNP. Conservation Area Appraisals, where available, for settlements within the YDNP **Detailed analysis of the landscape setting and key sensitivities of the eight YDNP settlements which are considered most likely to expand is provided in Annex C.** **Analysis of areas of significant sensitivity at the principal gateways to the National Park is provided in Annex D**
Sensitive conversion and restoration of traditional buildings, including field barns would support the tourist economy and conserve these characteristic and sensitive landscape features	
Landscape implications The degradation of farm buildings following their abandonment as useful agricultural assets would lead to the loss of one of the YDNP's most distinctive landscape features. There is a strong case for sensitive restoration which conserves barns and farmsteads by bringing them back into use, but it is important that this is done in ways that minimise the risk of eroding rural landscape character – through insensitive building conversion and through the impacts of the infrastructure associated with residential use, including driveways, car parking, lighting, signage and overhead power lines which can cumulatively have a suburbanising effect. **YDNP areas where the conversion and restoration of traditional farm buildings is likely to be most prevalent** Traditional farm buildings are found throughout the YDNP, but there is a particularly high density of barns and dry stone walls in Swaledale, Arkengarthdale, upper Wensleydale, Garsdale, Dentdale, Littondale and upper Wharfedale. Pressures for restoration projects are likely to be more intense in areas that are relatively accessible – eg. towards the periphery of the National Park and in the larger dales – Wensleydale, Swaledale and Wharfedale **Opportunities:** Grant scheme to encourage investment in barn-pod accommodation – perhaps taking forward the prototype developed by Feilden Clegg & Bradley Architects, which won the innovation category in the 2010 Design awards. The pilot demonstrated how an independent timber structure could be inserted within barns to provide comfortable accommodation with minimal disruption to the existing fabric	**Further advice:** **Traditional Farm Buildings Toolkit,** Conservation principles policies and guidance for the sustainable management of the historic environment, YDNPA provides guidance on assessing the significance and capacity for change of traditional farm buildings, and the relevant options for their restoration, adaptation and re-use, recognising that in some cases restoration may not be the best solution. **The Maintenance and Repair of Traditional Farm Buildings: a guide to good practice, Historic England, 2018**

Small-scale rural built development - farm-related development, such as sheds, slurry stores, reservoirs and single wind turbines to support existing agricultural businesses (including farm diversification) and tourist-related built development, such as car parks and visitor centres in rural areas.	
Landscape implications The Even small-scale developments can be visually intrusive and can weaken rural landscape character and local distinctiveness by the introduction of alien building styles or materials, by disrupting skylines and by undermining the sense of traditional land management that is characteristic of the Dales. Groups of farm buildings are often local landmarks and large modern barns and storage facilities/machinery can be prominent in long, open views. They may dwarf existing farmsteads and appear out of scale and visually dominant if they are not carefully sited and integrated with existing trees and/or new tree planting. **YDNP areas most likely to be affected by pressures for rural built development** The main dales, larger tributary dales and valleys on the fringes of the National Park, such as the Lune Valley (LCA 4), Lower Ribblesdale (LCA 13), Lower Wharfedale (LCA 16), Lower Wensleydale (LCA 18), the Upper Aire Valleys (LCA 15) and parts of the Orton Fells (LCA 2), where there are typically existing large farm holdings and estates in relatively accessible sites compared to the more remote parts of the YDNP. Moorland fringe landscapes where farm buildings appear as local landmarks on steep slopes that form a backdrop to views, may be particularly vulnerable to the visual impacts of farm-related development eg. The slopes of the Howgills (LCA 3) and Middleton, Fell, Barbon Low Fell and Leck Fell (LCA 7). Farm-related development may also be prominent in valley landscapes with dispersed settlement patterns, where farm buildings are typically sited alongside roads eg. Garsdale (LCA 5)	**Further advice:** **Yorkshire Dales Design Guide, YDNPA, 2016,** which is part of the Yorkshire Dales Local Plan provides advice on the siting and design of new development in the YDNP. **Siting and design of small scale wind turbines between 15 and 50 metres in height,** Scottish Natural Heritage, 2012**;** and **Landscape Guidance for Wind Turbines up to 60m high in the South and West Pennines,** Julie Martin Associates, 2013
Large-scale rural development, including employment, retail, education and tourism sites and leisure facilities, which may create changes at a landscape scale	
Landscape implications Large developments, which typically have relatively large buildings and extensive car parking, can be prominent and even visually intrusive in views from surrounding areas. They may also erode the distinctive qualities of landscapes which have an intimate, rural scale and/or landscapes with an open, remote character. Some existing developments, including quarries, livestock markets, mill buildings, caravan parks and golf courses are vitally important to the local economy but are poorly integrated within the local landscape. Others are exceptionally well screened by a combination of landform and woodlands. It is important that future large scale development meet the highest standards of siting and design so that they are catalysts for investment in positive landscape change. **YDNP areas most likely to be affected by pressures for large-scale rural development** There is likely to be more demand for this type of development in areas that are relatively accessible, towards the fringes of the National Park and close to existing larger settlements, which function as visitor hubs. However, opportunities for major redevelopment projects may occur in former quarries in Ribblesdale (LCA 13), the Upper Aire Valleys (LCA 15) and Wharfedale (LCA 16) and in relation to large schools and parkland, such as those in the Lune Valley (LCA 4) and in towns such as Sedbergh and Settle. Strategies for woodland expansion (see below) could be integrated the development of new settlements, settlement extensions or major educational or tourist facilities **Opportunities:** **The restoration of former quarries**, including the limestone quarries at Threshfield, Slindon and Skirwith Bridge will bring exciting opportunities for integrated mixed use development. **An exemplar for high quality sustainable developm**ent - There may be opportunities to develop a higher education outreach college, perhaps in collaboration with a regional university, which could be an exemplar for sustainable development in the YDNP, demonstrating the advantageous inter-connections between environmental quality and economic growth **Strategies for woodland expansion** (see below) could be integrated the development of new settlements, settlement extensions or major educational or tourist facilities	**Further advice:** **Yorkshire Dales Design Guide,** YDNPA, 2016, which is part of the Yorkshire Dales Local Plan provides advice on the siting and design of new development in the YDNP.

Transport infrastructure development – major highways improvements, minor road works and changes in traffic management	
Landscape implications Highways improvements may affect the tranquillity of surrounding landscape and, given the standardisation of safety requirements, tends to have a homogenising effect on landscape character. The nature of such effects depends on the scale of the infrastructure works, but even minor road works can cause erosion of rural character, for instance by 'smoothing out' distinctive tight bends, damaging the stone walls and hedgerows that create enclosure and eroding the species-rich verges that border many roads. There is also risk that improvements to historic bridges and roads within or on the fringes of rural settlements may compromise their distinctive landscape settings. **YDNP areas most likely to be affected by pressures for transport infrastructure development** There are specific pressures to upgrade the A685 between Brough and Tebay, which crosses the Upper Lune Valley in the Orton Fells part of the YDNP (LCA 2), and there may also be pressures for major highways improvements on the principal roads that are outside, but within the landscape setting of the YDNP, such as the A65 between Kirkby Lonsdale and Skipton. Within the National Park, the roads that link the main settlements along the centre of each dale and in particular those routes with important river crossings, are most likely to be subject to road improvement works as they are critically important connections. There may also be a need to repair damage to roads in the vicinity of the remaining active quarries, due to pressures from HGVs. **Opportunities:** **Positive design of transport corridors and junctions which are prominent within the landscape setting of the YDNP** – particularly the A65 near Ingleton and the A685/M6 junction at Tebay (and the A685 corridor through the YDNP to Kirkby Stephen) to demonstrate how transport related infrastructure can be integrated within the sensitive landscape setting of the YDNP.	**Further advice:** **Design Manual for Roads and Bridges** Vol 10, Part 3 - LA 117 Landscape Design (Dec 2019) provides good practice guidance for integrating highways schemes within their local landscape context. There is no specific UK guidance for the design of transport related schemes within protected landscapes. **Fitting Landscapes**, Transport Scotland, 2014 provides user-friendly guidance on the design and implementation of a sustainable and integrated approach to transport corridor landscapes, which is highly relevant within the YDNP context
Tall structures related to energy and communications developments – upstanding structures, including overhead transmission lines and individual communication masts and wind turbines	
Landscape implications Development of tall structures could undermine appreciation of the distinctive topography of the YDNP, interrupting the natural flow of landform and skyline and leading to a loss of tranquillity and intimacy in some areas. For instance, there is a significant risk that vertical structures may be visually intrusive in the open moorlands, particularly if developments can be viewed on skylines or against slopes or summits with distinctive stepped profiles. Such upstanding developments may also have adverse landscape and visual impacts in the small-scale landscapes of the dales, particularly if they appear on local skylines. **YDNP areas most likely to be affected by pressures for the development of tall structures** Areas that are most likely to be suitable are the fringes of open upland landscapes which are close enough to settlement to generate demand for improved communications infrastructure. For instance there may be pressures on parts of the Howgill Fells (LCA 3), the Orton Fells (LCA 2), the North Gritstone Moors (LCA 9), the Yoredale Uplands (LCA 10), the Great Scar Limestone Uplands (LCA 11), the SE Gritstone Uplands (LCA 17) and the Middleton and Barbon Fells and SW Fells Fringe (LCA 7). However, developments on the upland fringes of the dales could be visible on the skyline over adjacent dale landscapes. Pressure for the development of major overhead transmission lines is likely to apply in the Orton Fells (LCA 2) and Lune Valley (LCA 4) landscapes, which are adjacent to the existing strategic infrastructure corridor along the M6 corridor	**Further advice:** **Code of Best Practice on Mobile Network Development in England**, 2016, Appendix A contains basic principles on siting and design of masts **Siting and design of small scale wind turbines between 15 and 50 metres in height**, Scottish Natural Heritage, 2012; and **Landscape Guidance for Wind Turbines up to 60m high in the South and West Pennines,** Julie Martin Associates, 2013. Although aimed at commercial wind developments, both studies also contain guidance that is relevant for the development of single wind turbines, which may be relevant within the context of the YDNP

3.4.2 Land management - potential effects on landscape character and the special qualities of the YDNP

Agricultural intensification as a result of changes in technology and subsidies, which aims to maximise yields in terms of crops, soil nutrients, drainage and pest control, and improved pasture, an increase in silage and overall, an increase in the mechanisation of farming	
Landscape implications More intensive cropping, drainage and nutrient inputs may lead to changes in the colour and texture of the landscape and the loss of hay meadows and riverside pastures and the erosion of earthworks such as medieval rig and furrow. Increased mechanisation of farming tends to result in the amalgamation of field units and the widening of gateways and tracks to accommodate large tractors and machinery, with associated loss of drystone walls and hedgerows. Overall, the process of agricultural intensification may lead to the homogenisation of characteristic diverse landscape patterns, features and elements and the loss of semi-natural habitat. **YDNP areas most likely to be affected by agricultural intensification** Typically valley and main dale landscapes, such as the Lune Valley (LCA 4), Lower Wensleydale and Coverdale (LCA 18), parts of Ribblesdale (LCA 13), the Upper Aire Valleys (LCA 15) and Lower Wharfedale (LCA 16) where there are relatively large farm holdings and fertile soils.	**Further advice:** **Protecting our water, Soil and Air – A Code of Good Agricultural Practice for farmers, growers and land managers,** DEFRA, 2009. – A general guide which aims to balance objectives for farming and environmental conservation **Code of Good Agricultural Practice for the Reduction of Ammonia Emissions,** Defra, May 2019 – guidance which explains how farmers, growers, land managers, advisers and contractors can minimise ammonia emissions from agriculture. CFE (Championing the Farmed Environment) has produced a series of guidance leaflets to provide detailed conservation management advice for farmers, including **Conservation management advice for your arable business; Conservation management advice for your livestock business; Crop protection for arable and livestock farms** (which includes guidance for the improved management of pesticides and herbicides); **Pollinator management for your farm business;** and **Using tress and hedgerows to protect natural resources.** http://www.cfeonline.org.uk/guidance-and-resources/ Agriculture and Horticulture Development Board (ADHB) provides **practical information on soil management and grassland management,** as well as links to ongoing research and knowledge exchange. https://ahdb.org.uk/greatsoils and https://ahdb.org.uk/topic/crops-grassland/grassland-management
Increase in environmentally-friendly farming as a result of targeted agri-environmental schemes based on "public money for public goods", with payments directed towards environmental management and biodiversity improvements, rather than food production itself. Opportunities will be affected by climate change, political will (guided by public attitudes) and specific projects, such as schemes for re-wilding and nature recovery and projects designed to counter specific threats due to disease or invasive species. Note that there is separate guidance relating to changes in moorland management, ash dieback disease and measures to support natural flood risk management	
Landscape implications The drive for more environmentally-friendly farming is likely to result in a pattern of less intensive farming within marginal pastoral landscapes. With a carefully balanced land management and farming regime, supported by agri-environmental payments which aim to benefit biodiversity and local communities, the change could bring widespread benefits, and help support the delivery of many of the objectives set out in the YDNP Management Plan, including dark skies, a more extensive and connected network of semi-natural habitats, conservation of archaeological features, and more resilient farming communities. More radical rewilding would result in fundamental landscape change, with processes of natural regeneration taking precedence over pastoral or managed moorland landcover types. The degree to which this occurs would be dictated by stocking levels, soil type and microclimatic factors and a balanced, partial approach may also be an option **YDNP areas most likely to be affected by an increase in environmentally-friendly farming** Upland moorland, upper dale, tributary dale, dale head and moorland fringe landscapes, where viable farming businesses are likely to be reliant on payments for the wider environmental benefits they generate, in terms of natural flood risk management, carbon storage (eg via peatland restoration and management) and public access to landscapes with a wild, tranquil character. **Opportunities:** **Tees-Swale: naturally connected** – a NLHF-funded landscape-scale project which aims to restore, expand and connect habitats across Upper Teesdale and Swaledale, enhancing wildlife and delivering multiple public benefits. Working in partnership with farmers, landowners and conservation agencies, it will focus on sustaining 'high nature value' farming systems	**Further advice:** **A Green Future: Our 25 year Plan to improve the environment**, HM Government, 2018, which sets out an ambitious integrated policy framework and introduces key policies for biodiversity net gain and nature recovery networks **The Complementary Role of Sheep in Upland and Hill Areas**, National Sheep Association, 2016 which contains a wealth of advice on conservation, farm diversification and the economics of upland sheep farming. PINCHES, C.E., GOWING, D.J.G., STEVENS, C.J., FAGAN, K. & BROTHERTON, P.N.M. 2013. **Natural England review of upland evidence - Upland Hay Meadows: what management regimes maintain the diversity of meadow flora and populations of breeding birds?** Natural England Evidence Review, Number 005., 2013 **Managing Grasslands for Nature, A guidance note for farmers,** The Wildlife Trusts, 2016

Changes in moorland management which are strongly influenced by the game shooting economy and changes in levels of agri-environment scheme payments available to support upland livestock farming	
Landscape implications Changes in the balance of grazing, burning and drainage may lead to the degradation of internationally important blanket bog and the fragile upland moorland ecosystem. The greatest risk is that the deep layers of waterlogged peat will dry out, shrink and erode, resulting in the irretrievable loss of blanket bog habitat. Moorland degradation may lead to the spread of bracken, scrub and invasive species; in some areas there may be woodland regeneration. It will certainly cause an increased flow of water into catchments and increased risk of flooding downstream. Changes in moorland management may lead to a less wild and tranquil landscape character. **YDNP areas most likely to be affected by changes in moorland management:** The upland moorlands of the North Gritstone Moors (LCA 9), SE Gritstone Moors (LCA 17), The Howgill Fells (LCA 3), Yoredale Uplands (LCA 10) and the Great Scar limestone Uplands (LCA 11) where there is a concentration of moorland habitat and blanket bog	**Further advice:** **Moorland management guiding principles,** Natural England and the National Trust, December 2017 **Blanket bog outcomes and improvements: land management guidance,** Moors for the Future Partnership, Sept 2017
Expansion of broadleaved and mixed woodland planting – Government-led policy incentives are expected to deliver a significant increase in the woodland cover; the YDNP Management Plan has a target to create at least a further 450 ha of native broadleaved and mixed woodland by 2024	
Landscape implications and YDNP areas most likely to be affected by woodland expansion Woodland planting schemes will focus on areas where there are opportunities to strengthen habitat networks, increase carbon storage and help reduce flooding. There are multiple opportunities to increase woodland cover throughout the YDNP, but areas that would fulfil all the above objectives include gill woodlands and adjacent moorland valleys and floodplain edges within dales, in areas which are not designated for their biodiversity value.	**Further advice:** **Woodland Siting and Design Guide,** YDNPA,
Increase in commercial forestry – there is ongoing demand for coniferous plantations in the YDNP; this is a profitable land use, if appropriate sites can be identified and plantations sited and designed to complement existing landscape character	
Landscape implications Coniferous plantations may create uniform dark blocks with hard geometric outlines, which seem incongruous within expansive open uplands. They create a sense of enclosure and tend to mask distinctive topographic features, reducing the perceived scale of the landscape. Where they occur on valley sides, plantations may seem over-scaled and dominant in the intimate fine-grained rural landscapes of the dales. The infrastructure required to enable extraction of felled timber may create visually intrusive scars on moorland and dale slopes. Large coniferous plantations with a uniform age structure have an artificial appearance which compromises the sense of wildness and tranquillity that can be found on the open moorlands of the YDNP. **YDNP areas most likely to be affected by commercial forestry:** The large-scale, open moorland landscapes of the YDNP – the Yoredale Uplands (LCA 10) and Gritstone Moorlands (LCAs 9 and 17) may accommodate some commercial plantations in areas which are not designated for their biodiversity value and which do not have distinctive topographic features. There may also be more limited opportunities for planting in parts of the Orton Fells (LCA 2), the Lune Valley (LCA 4), the Upper Aire Valleys (LCA 15), Wharfedale (LCA 16) and Wensleydale (LCA 18). Refer to the separate LCA reports for specific guidelines.	**Further advice:** **Woodland Siting and Design Guide,** YDNPA **The UK Forestry Standard:** The government's approach to sustainable forestry, 2017 provides comprehensive guidance to all aspects of forestry and a framework for the delivery of multi-functional, sustainable forestry. It also provides detailed guidance for the siting and design of plantations to integrate with landscape character.
Ash Dieback - a fungal disease that kills ash trees and will lead to significant landscape change in the YDNP	
Landscape implications and YDNP areas most likely to be affected by ash dieback Ash dieback disease will result in a more open and less intimate landscape character, particularly in upland dales such as Garsdale, Rawthey Valley (LCA 5), Ribblesdale (LCA 13), Swaledale and Arkengarthdale (LCA 19), Wharfedale (LVA 16) and Dentdale (LCA 6) where the characteristic pattern of gill woodlands on dale slopes will become less defined and within the 'barns and walls' dale landscapes of Swaledale (LCA 19), Wharfedale (LCA 16), Wensleydale (LCA 18), where the loss of field ash trees will create a more exposed, less intimate landscape character. **Opportunities:** A targeted programme of replanting, prioritising a) the limestone-ash woodlands which lend definition to the landform of the dales and which are of high biodiversity value and b) the replacement of field trees within the barns and walls landscapes, where ash trees contribute to the intimacy of the landscape, marking the historic pattern of fields, barns and farmsteads.	**Further advice:** **Managing woodland SSSIs with ash dieback.** Joint advice from Natural England and the Forestry Commission, April 2019 **NE 546. Climate change adaptation manual: Evidence to support nature conservation in a changing climate – Report 4 – Mixed ash woodland,** Natural England, 2015.

Degradation of historic and archaeological sites - the legacy of historical and archaeological sites in the YDNP is at risk of deterioration due to a combination of neglect, weathering, soil erosion, trampling, construction damage and encroachment of trees and bracken.	
Landscape implications Damage to, or loss of, heritage sites due to vegetation growth, trampling, construction etc may damage built structures or the stratigraphy of archaeological sites. The ongoing decline of historic and archaeological sites will lead to the loss of time-depth in the landscape, undermining local distinctiveness. The imprint of past landscapes, as expressed through remnant boundaries, and the sites, buildings or structures of former settlements and industry, makes an immense contribution to our understanding and appreciation of the landscape. Their loss would be significant and would result in an irretrievable homogenisation of landscape character. Communities would feel less connected to their local landscapes and there would be a significant reduction in tourism. **YDNP areas most likely to be affected by the decline of heritage assets:** There are important heritage assets throughout the YCNP, with particular concentrations in the limestone upland of the Great Scar Limestone Uplands (LCA 11) and the Orton Fells (LCA 2); the distinctive historic rural farmlands and settlements of the dales (LCAs 5, 6, 8, 12, 13, 14, 16, 18 and 19), the former sites of former lead and coal mines on the gritstone moors (LCAs 9 and 17) and the dramatic viaducts and tunnels of the Settle-Carlisle Railway. It is likely that the heritage assets most at risk are the farm buildings in these dales and the former mining sites on the gritstone moorlands (LCAs 9, 10, 11 and 17) as these sites are unprotected by designation. Note: See below for guidelines relating to the distinctive historic barns, walls and field patterns of the Dales	**Further advice:** **Conservation principles, policy and guidance for the sustainable management of the historic environment,** Historic England. 2008 – Guidance for the assessment of heritage value and for making judgments about priorities for action and the appropriate route for management and maintenance **The Setting of Heritage Assets: Historic Environmental Good Practice Advice in Planning Note 3,** Historic England, 2nd edition, 2017
Ongoing decline of barns, walls and field patterns due to weathering lack of investment and the marginal economic viability of upland farming	
Landscape implications The degradation of the historic network of stone walled field and field stone barns following their abandonment as useful agricultural assets would lead to the loss of one of the YDNP's most distinctive landscape features. Lack of management of stone walls and hedgerows will cause fragmentation and weakening of the enclosure pattern. Initially there would be a decline in landscape condition, with a neglected character and proliferation of post and wire fencing to ensure stockproofing. Ultimately the stone walls, historic field patterns and field barns would disappear **YDNP areas most likely to be affected by the decline of barns, walls and field patterns are:** The main concentrations of this classic Dales historic landscape type are found in of Swaledale and Arkengarthdale (LCA 19), Wensleydale (LCA 18), Wharfedale (LCA 16), Malhamdale (LCA 14), Ribblesdale (LCA 13) and Dentdale (LCA 6), but walled fields, historic field patterns and historic farmsteads and field barns are found in every dale within the YDNP and all are at risk.	**Further advice:** **Swaledale and Arkengarthdale Barns and Walls Conservation Area Appraisal,** NDNPA, 2015 **Traditional Farm Buildings Toolkit** https://www.yorkshiredales.org.uk/wp-content/uploads/sites/13/2019/10/Traditional-Farm-Buildings-Toolkit-v4.5-Lo-Res.pdf
Natural flood risk management – natural river channel restoration projects and the creation of new wetlands and washlands on the floodplains of rivers in the YDNP with the aim of increasing surface water attenuation and capacity to slow flow and store water in order to reduce the risk of flooding in larger settlements downstream.	
Landscape implications River floodplain restoration projects may create permanent wetlands, with extensive scrapes, ponds, water meadows and reedbeds which will define the river floodplain landscapes within the principal dales. In many dales parts of the river floodplains are characterised by wide, flat areas, which were formed by glacial meltwater lakes. Such areas would be well suited to the development of wetlands. Floodplain wetlands would have significant biodiversity benefits and could be designed as multifunctional green infrastructure corridors and as part of the Nature Recover Network. **YDNP areas most likely to be affected by projects for natural flood risk management are:** The floodplains of the main rivers within the YDNP, which include the Rivers Lune (LCAs 2 and 4), Eden (LCA1), Swale (LCA 19), Ribble (LCA 13), Ure (LCA 18) and Wharfe (LCA 16).	**Further advice:** **Natural Flood Risk Management – a practical guide for farmers, Y**DNPA/NYCC/YDRT, 2018. Guidance for farmers and land managers in the YDNP which provides simple, clear advice on the provision of natural flood management measures **Working with Natural Processes Evidence Directory,** Environment Agency, 2018. Compilation of research and best practice advice on catchment-based river and floodplain restoration, including catchment, cross-slope, floodplain and riparian woodlands and management of run-off including soils, headwater drainage and run-off pathways. **Natural Flood Management Handbook,** SEPA, 2015 – Guidance for implementing multifunctional natural flood management projects

3.4.3 Recreation - potential effects on landscape character and the special qualities of the YDNP

Sustainable access multi-user routes, circular routes and connections to railway stations and public transport will provide active travel (walking and cycling) connections, with scope for increased wheelchair and family-friendly access where terrain permits	
Landscape implications Increasing access to the National Park through sustainable ' travel routes could reduce traffic, increase safety for walkers and cyclists and conserve the rural character of minor roads. There is a slight risk that such routes could have an 'urbanising effect if they are not carefully designed to minimise landscape and visual impacts, but overall the benefits of such schemes should easily outweigh the disadvantages **YDNP areas most likely to be suitable for sustainable access routes** There is already a route in Swaledale and plans for a multi-access route between Hawes and Garsdale. Future routes could be developed in several dales where there is relatively level terrain and suitable 'hubs' at start and finish points. In addition, railway stations along the Settle-Carlisle railway are obvious focal points for linked access	**Further advice:** **Traffic-free routes and greenways design guide – Sustrans** (online only) provides comprehensive design guidance. https://www.sustrans.org.uk/for-professionals/infrastructure/sustrans-traffic-free-routes-and-greenways-design-guide/
Adventure tourism – there is strong demand for outdoor recreation in the stunning Dales landscape, including activities such as caving, paragliding, rock climbing and trail riding with recreational motorised vehicles, which the latter requires particularly careful management to protect the special qualities of the YDNP	
Landscape implications Ad hoc parking along roadsides, at viewpoints and at the start of trails can be visually intrusive in open moorland and upper dale landscapes. The use of recreational motorised vehicles on green lanes and unsurfaced tracks can cause erosion, but more significantly cause noise and visual disturbance for non-motorised recreational users. Such activities reduce the sense of tranquillity and wildness that people have come to experience. **YDNP areas most likely to be affected by adventuring tourism activities** The limestone uplands of the YDNP (LCA 11) are particularly vulnerable to visual intrusion from ad hoc parking caused by adventure tourism because the dramatic karst scenery offers superb sites for caving, climbing and exploring. However, there is a risk of intrusive activities in all the landscapes of the YDNP, where the rural, intimate character of green lanes and the sense of exposure and wildness that can be experienced on the upland moors may be compromised through any indication of others recreational activity.	**Further advice:** **Special Qualities, Special Experiences - An integrated access, recreation, visitor management, diversity and tourism strategy**, YDNPA, 2019 – contains guidance for managing all forms of recreational activity, including the physical maintenance of the rights of way network, and safeguarding sensitive sites. https://www.yorkshiredales.org.uk/wp-content/uploads/sites/13/2019/10/June-2019-Special-Qualities-and-Experiences.pdf **Green Lanes Management:** The use of green lanes by recreational motor vehicles and management options are described in our document 'https://www.yorkshiredales.org.uk/wp-content/uploads/sites/13/2019/08/Green-Lanes-Framework-2017-FINAL-1.pdf **Green lane driving and trail riding leaflet,** YDNPA - https://www.yorkshiredales.org.uk/wp-content/uploads/sites/13/2019/08/greenlanesleaflet.pdf
Tranquillity and dark night skies – The YDNPA is committed to conserving tranquillity and dark night skies, recognising that these increasingly rare experiences are valuable special qualities of the National Park.	
Landscape implications and YDNP areas most likely to be affected by activities that cause intrusion to tranquillity and dark night skies: The open, remote and deeply rural landscapes of the upper dales, dale heads and open uplands are particularly sensitive to the potential intrusion that may be caused by insensitive lighting of habitations, car parking, access by motorised vehicles and large numbers of visitors	**Further advice:** **Special Qualities, Special Experiences - An integrated access, recreation, visitor management, diversity and tourism strategy,** YDNPA, 2019 – sets out a landscape-based spatial approach to safeguarding the visitor experience based on landscape character and the special qualities of the YDNP **2018 International Dark Sky Reserve Guidelines,** International Dark Sky Association **Tranquillity Mapping: Developing a Robust Methodology for Planning Support,** Prepared for the Council for the Protection of Rural England by Northumbria University, January 2008 – sets out the factors that were used to inform preparation of the CPRE's national tranquillity map

ANNEX A

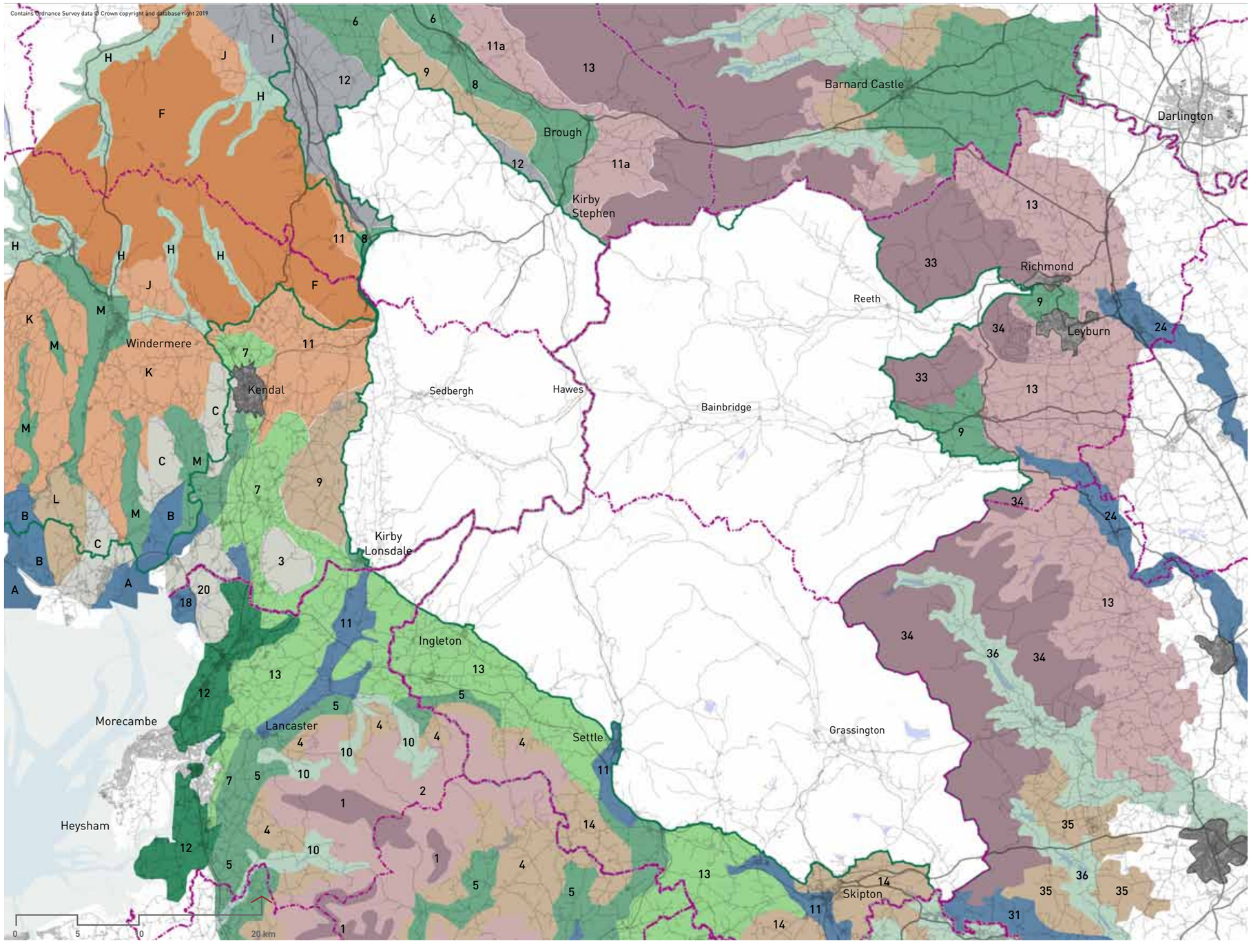
Landscape character types in adjacent local authority areas

Figure A1 shows the relationship between these regional landscape character types and the detailed classification of landscape character types in each of the existing published landscape character assessments for the local authority areas that border the National Park. The relevant publications are:

- County Durham Landscape Character Assessment, 2008
- Cumbria Landscape Character Guidance and Toolkit, 2011
- A Landscape Strategy for Lancashire, 2000 (includes Craven District)
- North Yorkshire and York Landscape Character Assessment, 2008
- Lake District National Park Landscape Character Assessment and Guidelines, 2008
- Landscape Character SPD, City of Bradford, 2008

Figure A1

Landscape Character Types
(relationship to adjacent published Landscape Character Assessments)



National Park Boundary

County boundary

District boundary

Simplified landscape character types at a regional scale

Notes on relevant landscape types in adjacent district LCAs

High Gritstone/Limestone Moors

North Yorkshire & York LCA: 33 - Gritstone High Plateau + 34- Gritstone High Moors and Fells
County Durham LCA: North Pennines - Moorland Plateau + Moorland Ridges and Summits
Cumbria LCA: 13 - Fells & Scarps
Lancashire & Craven LCA: 1 - Moorland Plateaux

High Moorland Fringe

North Yorkshire & York LCA: 13 - Moors Fringe
County Durham LCA: North Pennines - Moorland Fringe
Cumbria LCA: 11a - Upland Fringes - Foothills
Lancashire & Craven LCA: 2 - Moorland Hills

Low Moorland Fringe

North Yorkshire & York LCA: 35 - Gritstone Low Moors and Fells
County Durham LCA: Dales Fringe - Gritstone Upland Fringe
Cumbria LCA: 9 - Intermediate Moorland Plateau
Lake District NP LCA: L - Low Fell Fringe
Lancashire & Craven LCA: 4 - Moorland Fringe + 14 - Rolling Upland Fringe
Bradford LCA: Rombald's Ridge

Upland Dales

North Yorkshire & York LCA: 36- Gritstone Valley
County Durham LCA: North Pennines - Lower Dale + Middle Dale + Upper Dale
Lake District NP LCA: H - Upland Valley
Lancashire & Craven LCA: 10 - Wooded Rural Valleys
Bradford LCA: Wharfedale + Airedale

Farmed Vales

North Yorkshire & York LCA: 9 - Farmed Dales
County Durham LCA: Dales Fringe - Gritstone Vale + Tees Lowlands + Lowland Vale
Cumbria LCA: 6 - Intermediate Farmland + 8 - Main Valleys
Lake District NP LCA: M - Lowland Valley
Lancashire & Craven LCA: 5 - Undulating Lowland Farmland + 7 - Farmed Ridges

High Limestone Uplands

Cumbria LCA: 12 - Higher Limestone
Lake District NP LCA: I - Upland Limestone Farmland

Low Limestone Uplands

Cumbria LCA: 3 - Coastal Limestone
Lake District NP LCA: C - Coastal Limestone
Lancashire & Craven LCA: 20 -Wooded Limestone Hills and Pavements

Drumlin Lowlands (High)

Cumbria LCA: 7 - Drumlins
Lancashire & Craven LCA: 13 - Drumlin Field

Drumlin Lowlands (Low)

Lancashire & Craven LCA: 12 - Low Coastal Drumlins

Alluvial River Valley Floor

North Yorkshire & York LCA: 24 - River Floodplain + 31 - Settled Industrial Valleys
Cumbria LCA: 2 - Coastal Margins
Lake District NP LCA: A - Estuary & Marsh + B - Coastal Margins
Lancashire & Craven LCA: 11 - Valley Floodplains

High Silurian Fells

Cumbria LCA: 13 - Fells and Scarps
Lake District NP LCA: F - Rugged/Craggy Volcanic High Fell

Silurian Fell Fringe

Cumbria LCA: 11 - Upland Fringes
Lake District NP LCA: J - High Fell Fringe + K - Low Fell

ANNEX B

Contribution to landscape character - comparative analysis

The following tables identify the relative (minor, moderate, major) contribution made by landscape elements and features (both benefits and detractors) to landscape character for the landscape character areas (LCA) within the YDNP:

Table B1 - Dale and Valley LCAs:

Table B2 - Upland LCAs

Figure B1 shows the principal LCAs within the YDNP, for ease of reference. The legend alongside shows the local LCAs which are found as sub-areas, within some of the principal LCAs. The analysis in Tables B1 and B2 includes these local LCAs.

This comparative approach is intended to provide a close link with the landscape character assessment process, providing a rapid overview of the spatial distribution of key elements and features across the different LCAs within the YDNP and demonstrating their relative importance in terms of the contribution they make to distinctive landscape character.

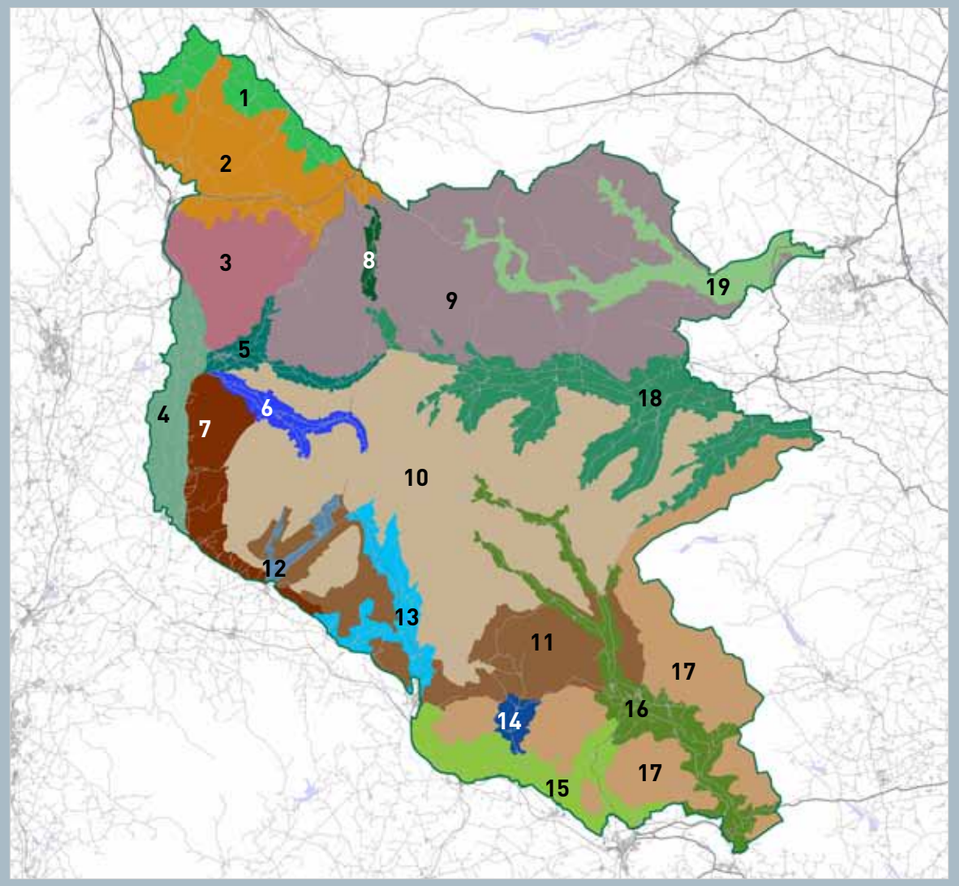


Figure B1

Landscape Character Areas - the principal LCAs within the YDNP

Some LCAs are subdivided into Local LCAs, as shown in the tables (and on maps in the individual LCA reports)

	Principal Dale/Valley LCA	*Local LCA*
LCA 1	Eden Valley Fringe	
LCA 4	Lune Valley	Mid Lune Valley Lower Lune Valley
LCA 5	Garsdale & Rawthey Valley	Garsdale Rawthey Valley
LCA 6	Dentdale	
LCA 8	Mallerstang	
LCA 12	Chapel-le-Dale	Kingsdale Upper Chapel-le-Dale Lower Chapel-le-Dale Ingleton Glens
LCA 13	Ribblesdale	Upper Ribblesdale Mid Ribblesdale Lower Ribblesdale Crummackdale Ingleborough & Moughton S Fringe
LCA 14	Malhamdale	
LCA 15	Upper Aire Valleys	High Langber S Fringe Newton & Otterburn Moors Southern Valleys Southern Dales Fringe
LCA 16	Wharfedale	Langsthrothdale Littondale & Upper Wharfedale Wharfedale Craven fault Mid Wharfedale
LCA 18	Wensleydale	Upper Wensleydale Mid Wensleydale Lower Wensleydale Cotterdale Widdale Sleddale Raydale Bishopdale Waldendale Coverdale
LCA 19	Swaledale & Arkengarthdale	Upper Swaledale Arkengarthdale Mid Swaledale

	Principal Upland LCA	*Local LCA*
LCA 2	Orton Fells	Northern Plateau Fringe High Limestone Plateau Upper Lune Valley
LCA 3	Howgill Fells	
LCA 7	Middleton and Barbon Fells and SW Fell Fringes	Middleton Fell & Barbon Low Fell Western Fell Fringe Leck & Masongill Valley Fringe S Slopes of Ingleborough Common
LCA 9	North Gritstone Moors	
LCA 10	Yoredale Uplands	
LCA 11	Great Scar Limestone Uplands	
LCA 17	SE Gritstone Uplands	Eastern Gritstone Moors and Fells Southern Gritstone Outliers

Table B1 - Dale and Valley LCAs

Landscape Element/Feature	*Contribution to Landscape Character*																																				
	Eden Valley Fringe	Lower Lune Valley	Mid Lune Valley	Garsdale	Rawthey Valley	Dentdale	Mallerstang	Kingsdale	Upper Chapel-le-Dale	Lower Chapel-le-Dale	Ingleton Glens	Upper Ribblesdale	Mid Ribblesdale	Lower Ribblesdale	Crummackdale	Ingleborough & Moughton S Fringe	Malhamdale	High Langber Moorland Fringe	Newton & Otter-burn Moors	Southern Valleys	Southern Dales Fringe	Langstrothdale	Upper Wharfedale and Littondale	Wharfedale Craven Fault	Mid Wharfedale	Upper Wensleydale	Mid Wensleydale	Lower Wensleydale	Cotterdale	Widdale	Sleddale	Raydale	Bishopdale	Waldendale	Coverdale	Upper Swaledale	Arkengarthdale	Mid Swaledale
	1	4	4	5	5	6	8	12	12	12	12	13	13	13	13	13	14	15	15	15	15	16	16	16	16	18	18	18	18	18	18	18	18	18	18	19	19	19
Geology, Topography & Hydrology																																						
Valley form		/	//	//	//	//	///	///	/	///	///	/	///	///	///	/	///			/		///	///	/	//	///	/	/	///	/	//	///	//	///	/	///	//	//
Well developed tributary valleys			/	/	/	//			//		//	/	/	//	///	//	///					/	/	//	//		///	///	/	/		/			//	//	//
Major outcropping landscape features				/		/	///	///	//	///	///	//	//	//	///	/	///					//	///	//	/	/	///	///					/	//		//	//	//
Major outcropping gritstone features							///													///					///											//	///	//
Complex faultline features. incl. reef knolls											///			//	///		///			///				///		//											
Scattered boulders/scree					/		//	//	/	///	//															/	//	//	//				//	//			
Glacial deposition features eg drumlins, moraines		///	//	/	///	/	//	///	/			///	/						//	//	///		/	/	//		///	///		/					/	/	/
Fast flowing river	//			//	//	//	//				///	/	/	/	//	/	//					///				/			/	/	/		//		///	//	//
Meandering slower flowing river		///	//		/			/						/	//						//		//	//	//		//	///						/			
Dry river bed						/		//	/	/					/								/															
River cutting through topographical features			//	/		/	//	//	/	/	///				//		//														//		///		///	//	//
Platformed riverbed/waterfalls				//		///			//		///			//	//	//						//	/	/			/	///			/				///	/	/
Significant tributary streams	///		//	/	//	//	//		//		/		/	//	//	//	///			//	//	/	/	//	///	//	///	///		/	/	/			//	//	//
Minor gills	//		/	/	///	//	//	/	/			/	/	/	/		//		/			//	//	/	/	//	///	/		/	/	/	/	//	//	//	//	//
Historic/cultural influences																																						
Traditional farmsteads	//	/	//	//	/	///	///	/	///	/	/	//	/	/	//	/	//	/	/	/	//	///	//	/	//	/	/	/	//	/	/	/	//	/	//	//	//
Traditional unspoilt hamlets		/	/	/		///	//		///		/	/	/	//	///	/				/	/	///	///	/	/		/	/	///			/	/		/	///	//	///
Traditional gritstone/limestone/sandstone villages	///	/				///							/	///		///	///	/		//	//		///	//	/		///					/		/	///		
Bridges	///	///	//	///	//	///	//	//	/		/	/	/	//	/	/	//					//	//	//	//	//	///	/	/	//		/	/		/	///	//	//
Field barns				/		/	//	/	/	/	/			/	/	/	/			/	/	/	///	/	/	/	//		//	/		//		/		///	//	/
Pattern of drystone walls		/	/	/		/	//	//	//	//	/		//	//	//	//	///	//	//	/	/	//	///	//	/	/	//	/	/	/	/	//	/	/	///	//	/
Historic agricultural features (eg lynchets, rig & furrow)	///	//	/		/	/	//		/		/				/	/	//				/	/	///	///	/		/	//				/		/	//	//	//
Historic settlement features, stone circles etc.	//				/	/	/	//	//								///			//		/					/	//							/	/	/
Historic mining features (eg structures, chimneys, waste tips)						/					//	//	//				//							/							//				///	///	
Historic routes (eg monastic routes, droving roads, corpse roads)		//	///	//	//	/	/		///	///	//						/					/	/	/	/	/	//										
Landmark historic buildings	/	//	/	/	/		/									/				/				/	///		//							/	//	/	///
Road/country lanes (positive)	//	//	//			//	//	//	//	/	///	/	/	//	///	/	///	/	/	/	/	//	//	//	/	/	//	//	/	/	/	//	//	//	//	//	/

Landscape Element/Feature	*Contribution to Landscape Character*																																				
	Eden Valley Fringe	Lower Lune Valley	Mid Lune Valley	Garsdale	Rawthey Valley	Dentdale	Mallerstang	Kingsdale	Upper Chapel-le-Dale	Lower Chapel-le-Dale	Ingleton Glens	Upper Ribblesdale	Mid Ribblesdale	Lower Ribblesdale	Crummackdale	Ingleborough & Moughton S Fringe	Malhamdale	High Langber Moorland Fringe	Newton & Otter-burn Moors	Southern Valleys	Southern Dales Fringe	Langstrothdale	Upper Wharfedale and Littondale	Wharfedale Craven Fault	Mid Wharfedale	Upper Wensleydale	Mid Wensleydale	Lower Wensleydale	Cotterdale	Widdale	Sleddale	Raydale	Bishopdale	Waldendale	Coverdale	Upper Swaledale	Arkengarthdale	Mid Swaledale
	1	4	4	5	5	6	8	12	12	12	12	13	13	13	13	13	14	15	15	15	15	16	16	16	16	18	18	18	18	18	18	18	18	18	19	19	19
Landcover																																					
Flower-rich hay meadows	/		//	/	/	///	//			/	/		//	//			/			/	/	///	///	//	/		//	///	//			///	/	//	//	///	///	/
Moorland vegetation types extend down valley sides	/		//	/	/	/	//	//	//	///	/	///	//	/	//			/	/	/		///	//	/	/	///	///	/	///	//	///	/	/	//	///	//	
Ancient semi-natural or other broadleaved woodland on valley floor/lower valley sides	/	///	//	/	//	//	/	//	//		///			///	/		//	//		///	//	/	/	///	///		/	///			//	//	/	//		//	///
Ancient semi-natural or other broadleaved woodland on upper valley sides/scars	/	//	/		//	/	/	/		/	/			//	///	//	/			/	/	//	///				/	///				/		///	///	///
Tree cover by river/tributaries	/	///	///	///	///	///	/		//	/	///	/	/	///	//	//	///		/	///	//	//	//	//	///	/	/	///	/	/	//	/	//	//	//	//	//
Tree cover associated with settlements	//		/		/				///	/	/			//	//	///	///		/	//	///	//	//	//	//			/	/				/	//	//	//
Individual trees on field boundaries	//	//	//		/	//	//	/	/	/	/	/	/	//	//	//	//	/	/	//	///		/			/	///	/		/	///	//	/	//	//	///
Copses/small groups of trees within farmland	///	///	//	/	//	///	/		/				/	//		//	/			///	///					/	///	/		/	/	/	/	/	/	//
Hedgerows	///	//	//	/	///	///	/									//	/			//	//		/	/	/		//				/	///	/	/	/	/	///
Influence of historic parkland or estates	//	///	//		//	/			//		/			/	/	///	/	//		//	///		//	/	///		/	//				//		/	/	/	///
Detractors (negative features)																																					
Quarries				//	/	/				///	///	//	///	//		/		/	/	///			/	///	/		//	/				/				/	///	/
Industrial/commercial development			/	/										//									/	///	//		//	//										
Settlement expansion	//	//			/	/							/	/			/		/				/	///			/	/				/	/			/		
Suburban influences in countryside	/	///	/	///	/	/							//	/		/	/	/	/	//	//		/	///			//	//										
Agricultural development (eg large sheds, silage towers)	//	//	/	/		/		/		/			/	/			//		/	//	//		/	/	/		/	//				/	//	/	/	/	//
Telecommunications masts, wind turbines	/	/			/																		/	/													/
Overhead electric/telephone lines	//	//	/	/	//	/	/	/	//	//	/	//	///	//	//	/	/	/	//	//	/	/	/	//	//	/	//	//	/	/	/	/	/	/	//	/	//
Camping/caravan sites					/	/							//				/						//	/	/		/	/	/			/	/		/	/	/
Tourist pressures (commercial development, parking, crowds)	//	//			/	///	//			///	/		//	/			///						/	//	//	/	//	///	/			//	/		/	//	/	/
Wire/timber fences	/	///	/		/	/		//		//			/	/		//	/	//	/	/	/							/			/		//				/
Extensive/medium-scale coniferous forest		//		//	/	/			///										///	///	//	///			///	//			///	///		//		/	/			//
Scattered smaller conifer plantings			/					//		//	/		/		/					/	/	/	//	//	/										/	/	/
Traffic/road improvements	/	//		/	//	//	/			///		/	//	//		///	/	///		//	//		/	/			/	/									
Railway				/		/	/					//	//							/	/					/	//										
Reservoir																				/																		

Scoring system: / - minor contribution, // - moderate contribution, /// - major contribution

No entry in significance column indicates that landscape element or combination of elements does not feature in character area or makes very limited contribution.

Table B2 - Upland LCAs

Landscape Element/Feature	*Contribution to Landscape Character*												
	Northern Plateau Fringe 2	High Limestone Plateau 2	Upper Lune Valley 2	Howgill Fells 3	Middleton Fell & Barbon Low Fell 7	Western Fell Fringe 7	Leck & Masongill Valley Fringe 7	S Slopes of Ingleborough Common 7	North Gritstone Moors 9	Yoredale Uplands 10	Great Scar Limestone Uplands 11	Eastern Gritstone Moors and Fells 17	Southern Gritstone Outliers 17
Geology, Topography & Hydrology													
Plateau form		///			//				///	///	///	//	///
Summit form				///	//				/	///	/	/	/
Major outcropping limestone features (including limestone pavement)		///							//	//	///	/	/
Major outcropping gritstone features									///	//		///	///
Outcropping Silurian rock forms				/									
Scattered boulders/scree		//		//	//				/	///	///	/	//
Glacial deposition features eg drumlins, moraines	///		//			/	/		//	///	/	//	//
Blanket peat				/	/				///	//		///	//
Upland tributary streams			//	///	/	/	/		///	///	/	///	//
Platformed streambed/waterfalls				/					/	///		/	/
Significant tributary streams	//		//	///	//	//	//		/	//	//	///	
Gills	//			///	//	///	//		///	///	//	///	///
Historic/cultural influences													
Traditional farmsteads	//		//			/	/	/	//	//	/	//	//
Bridges	/		//				//		/	/			
Field barns			/			/	/		/	/			/
Pattern of drystone walls	//	/	//		/	//	//		//	///	///	//	//
Historic agricultural features (eg lynchets, rig & furrow)	///		//										
Historic settlement features, stone circles etc.	//	///	//	/	/	//	//			/	//	//	
Historic mining features (eg structures, chimneys, waste tips)						/			///	/	/	///	/
Historic routes (eg monastic routes, droving roads, corpse roads)		//	///	/	/		/		//	///	///	/	//
Road/country lanes (positive)	//	//	//		/	//	//		///	///	///	/	/
Panoramic views		///		///	///	///	//		///	///	///	///	///
Landcover													
Acid grassland and heath		//		///	//	//	/		///	///	/	///	///
Calcareous grassland		///	/		/					//	///	/	

Landscape Element/Feature	*Contribution to Landscape Character*												
	Northern Plateau Fringe 2	High Limestone Plateau 2	Upper Lune Valley 2	Howgill Fells 3	Middleton Fell & Barbon Low Fell 7	Western Fell Fringe 7	Leck & Masongill Valley Fringe 7	S Slopes of Ingleborough Common 7	North Gritstone Moors 9	Yoredale Uplands 10	Great Scar Limestone Uplands 11	Eastern Gritstone Moors and Fells 17	Southern Gritstone Outliers 17
Upland hay meadow			//										
Ancient semi-natural or other broadleaved woodland	/					//	///			//	//		/
Plantations (mixed)	/		/			//	//		///	//	//		
Scattered trees and shrubs	/	/	/		/	//	/	/	/	///	///	/	/
Influence of historic parkland or estates			//			//	//				/		
Detractors (negative features)													
Quarries		/								//	///		
Agricultural development (eg large sheds, silage towers)	//		//			/	/	/	/	/	/	/	/
Telecommunications masts, wind turbines	/		/			/			/	/			/
Reservoirs												/	/
Overhead electric/telephone lines	/	/	/		/	/	/	/	/	/	/	/	/
Tourist pressures (commercial development, parking, crowds)				/	/	/			/	///	///	//	//
Stone shooting tracks									//			//	//
Wire/timber fences	/		/			/	/		/	/	/	/	/
Extensive/medium-scale coniferous forest	//								/	///		/	//
Scattered smaller conifer plantings	/	/	/	/					//	//		/	//
Traffic/road improvements	/		//					//				//	

Scoring system: / - minor contribution, // - moderate contribution, /// - major contribution

No entry in significance column indicates that landscape element or combination of elements does not feature in character area or makes very limited contribution.

ANNEX C

Settlement guidance

The YDNP landscape character assessment includes settlement-based guidelines for the four Local Service Centres and a selection of the larger Service Villages in the YDNP:

- Sedbergh
- Hawes/Gayle
- Grassington/Threshfield
- Reeth
- Barbon
- Casterton
- Embsay
- Long Preston

The settlements were selected on the basis of their size, services and proximity to larger centres. The work was undertaken in three steps:

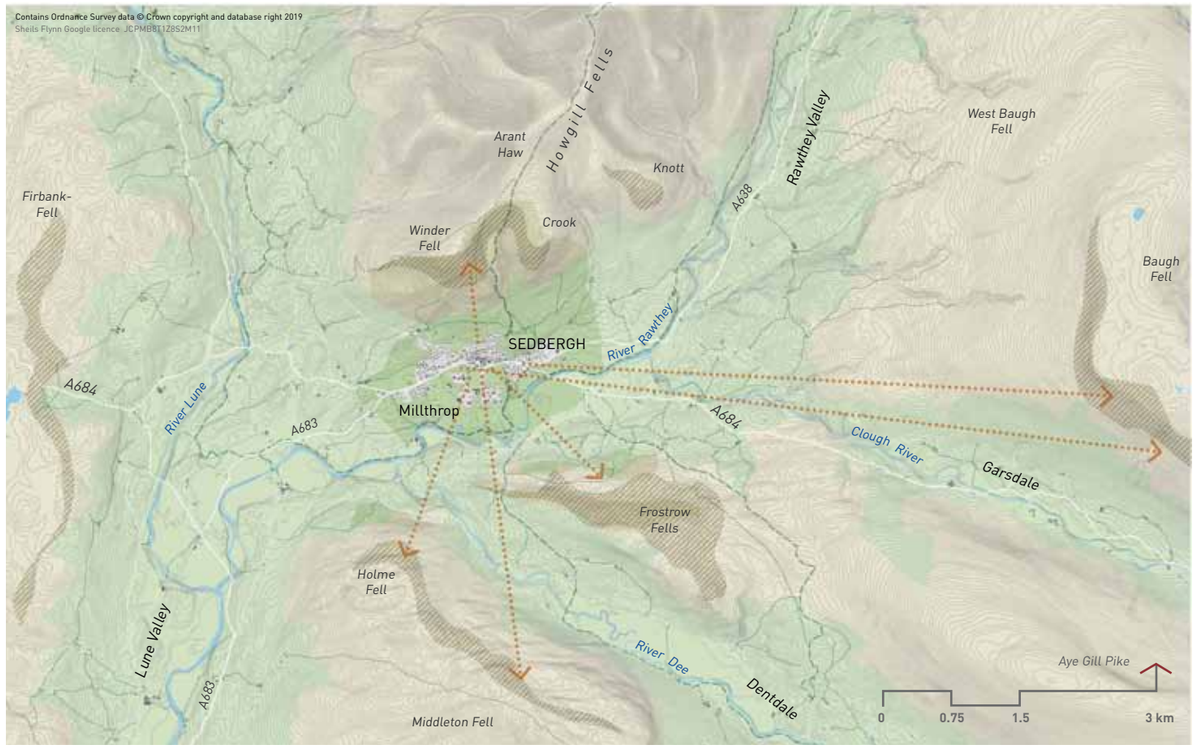
- desktop mapping to show the overall landscape context and any existing Local Plan development allocations (larger scale maps were prepared for the four Local Service Centres only) ;
- fieldwork to identify the key views into and out from the settlement from roads and public rights of way; the principal gateways to the settlement; and the landscape elements and features that structure the way the settlement is perceived; and
- mapping and reporting to describe the landscape setting and provide guidance for its conservation.

The landscape setting for each settlement is deliberately not shown as a definitive 'boundary' because it is based on subjective judgement and because the extent of important views will inevitably vary with changing weather and seasonal conditions. However the landscape setting analysis and guidance identifies the important landscape elements and features that structure the way each settlement is perceived and which merit conservation in relation to future landscape change, including built development.

Please note that this work is undertaken at a high level of analysis and is intended to guide future YDNPA policy for development capacity and constraint in the emerging Local Plan; it does not represent policy guidance.

Sedbergh

Figure C1.1
Sedbergh - landscape setting context



Landscape setting

The town of Sedbergh is sited on a series of low drumlins alongside the River Rawthey at the gateway to the Cumbrian Dales - Rawthey Valley, Garsdale, Dentdale and Deepdale. Sedbergh has a dramatic landscape setting as the town is on the valley slope at a point where the River Rawthey has cut through the steep ridge of the Howgill Fells to join the larger valley of the River Lune to the west. It is dominated by the vast open slopes of Winder Fell (473m) and Arant Haw (605m) to the north and Holme Knott (350m) on the lower flanks of Middleton Fell to the south.

To the south of Sedbergh, the small hamlet of Millthrop is sited on rising land on the opposite bank of the River Rawthey. There is no visual connection between the two settlements, but a historic bridge over the river provides a physical link

Figure C1.1 illustrates this dramatic landscape setting and shows the principal ridgelines which form the

- Valley farmland
- Protected open upland
  Policy L10 - YDNP Local Plan 2015-2030
- Sedbergh's landscape setting
  (see Figure C1.2 for detail)
- Settlement
- Contour lines (5m interval)
- Promoted long distance footpaths
- Public rights of way
- Locally important ridgelines
- Key views which describe Sedbergh's overall landscape setting



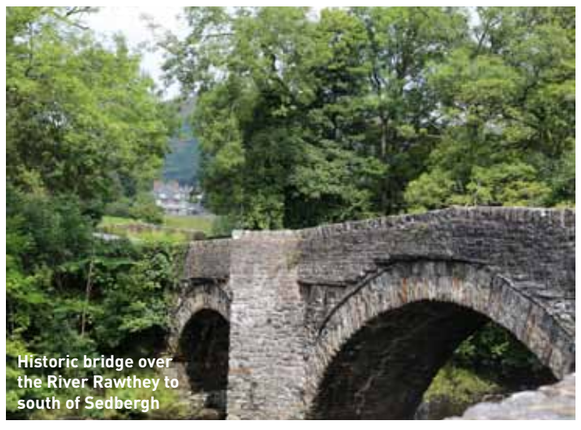
View north to north-east along Loftus Hill. The steep slopes of the Howgills (Winder and Crook Fells) loom over the town



Winder Fell from the meadow south of Station Road



Sedbergh School playing fields to south of town centre



Historic bridge over the River Rawthey to south of Sedbergh



Hamlet of Millthrop



Main Street


Terraced cottages on Loftus hill

horizon in local views from Sedbergh.

Figure C1.2 provides a more detailed analysis of the landscape setting of Sedbergh, taking account of views into and out from the town and its principal gateway approaches. The areas which are broadly visible in views from and to the town are shown in a darker, brighter tone. The Howgill Fells provide a striking backdrop in views to the north from the town centre. There are also longer views to the summit of Baugh Fell to the east and Middleton Fell to the south.

At a local scale, views are constrained and structured by the steeply undulating rounded drumlin landforms, which are interspersed throughout the landscape setting of the town. Figure B1.2 identifies the drumlins which are most influential in defining Sedergh's landscape setting and show how the areas of development are typically shaped by these landforms. They contribute character and a strong local identity.

Sedbergh's landscape setting is also strongly influenced by the buildings and immaculate playing fields of Sedbergh school, which are clustered to the south-west of the town centre.

The principal gateways to Sedbergh at the outer limits of the town's landscape setting are also shown on Figure C1.2. The vehicular gateways from the west are defined by the curving steep embankment of the disused railway and by a cluster of drumlins on the western fringes of Rawthey Valley. The gateways from the south, which have an enclosed, well treed character, are at the historic bridges over the River Rawthey. From the east, the 'valley gateway' to Sedbergh is less sharply defined; views to the town from the east are partially screened by mature roadside and hedgerow trees along a relatively straight section of the A683.

There are also important recreational gateways from the footpaths which descend the steep slopes of the surrounding fells and which offer panoramic views of Sedbergh within its wider valley setting.

Given the extent of these elevated fell slope views, the majority of Sedbergh's landscape setting is sensitive to development. Box B1 sets out the most important (and sensitive) landscape features and elements which contribute to the landscape setting of the town.

BOX C1

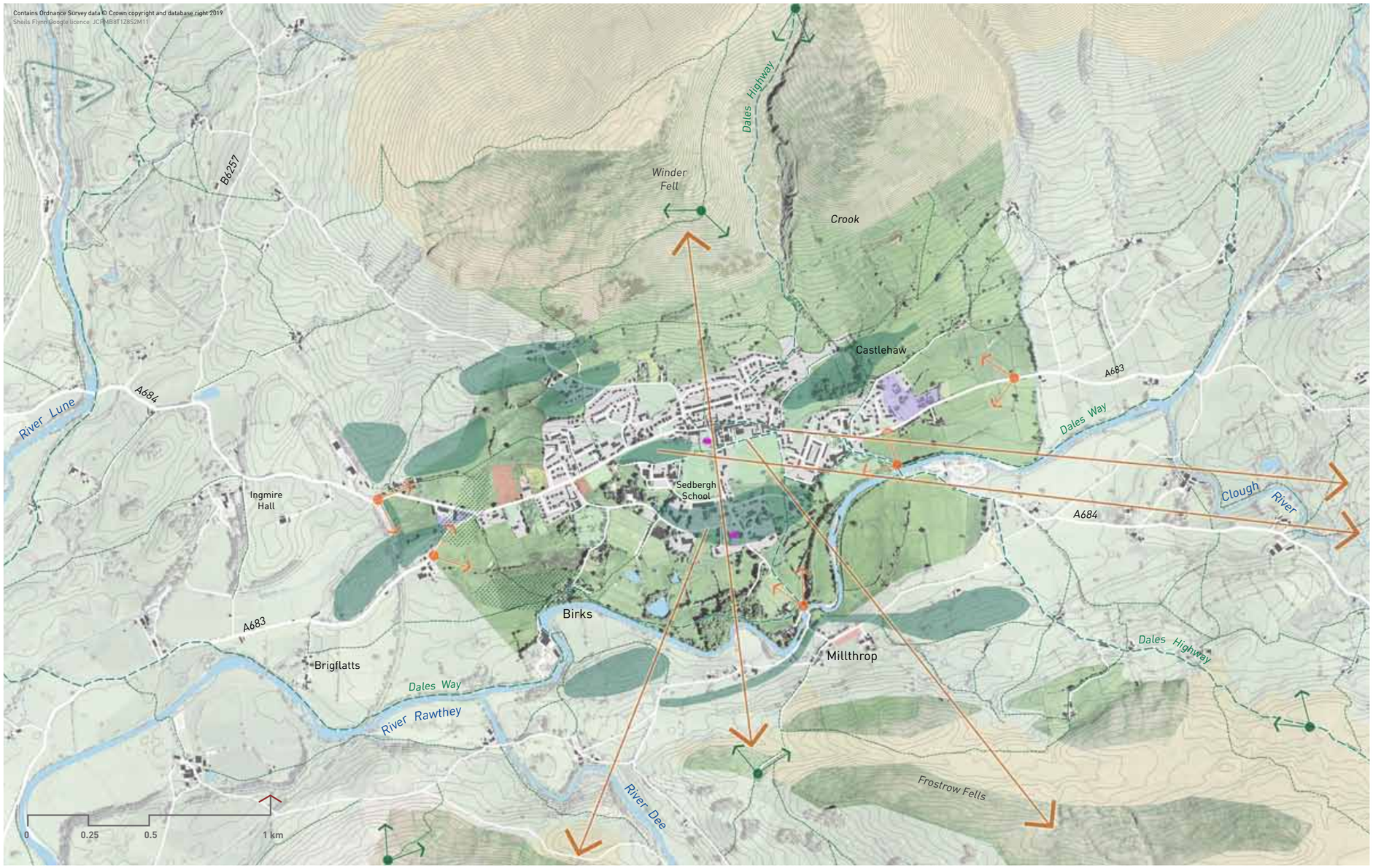
Important landscape elements and features which contribute to Sedbergh's landscape setting

Given the elevated fell slope views from the Howgills to the north, the majority of Sedbergh's landscape setting is sensitive to development. However, within this landscape setting, t**he most important (and sensitive) landscape features and elements are:**

- The open slopes of Winder Fell immediately to the north of Sedbergh and the built edges of the town on this northern side, which are prominent in views from the footpaths (including the promoted Dales Highway) on the descent from the Howgill Fells.
- The more enclosed and partially wooded lower slopes and banks of the River Rawthey, including the sequence of historic bridges, mills and hamlets of Birks and Millthrop.
- The narrow framed views to the Howgills, between buildings along alleyways and streets; it is important to avoid infill development that would block the middle-ground in these characteristic views.
- The slopes and particularly the ridgetops of the small drumlins which are dispersed throughout the town on the valley slopes, including particularly Castlehaw to the north-east of the town centre, which is the site of a motte and bailey castle and designated as a scheduled monument.
- The playing fields and open parkland landscapes associated with Sedbergh School.
- The characteristic 'loose-knit' mix of built development and green spaces that is typical of Sedbergh; groups and lines of buildings are always interrupted by and viewed across intervening greenspaces.


View northwards from the road to Millthrop to the southern fringes of Sedbergh (framed by drumlins)

Figure C1.2
Sedbergh - Landscape setting analysis



Land within broad landscape setting of Sedbergh

Valley farmland outside the landscape setting

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses and water bodies

Principal structuring drumlin landforms, which contain and contribute to the character and quality of Sedbergh's landscape setting

Minor, influential drumlin landforms

Church tower (upstanding landmarks)

Key views which describe Sedbergh's overall landscape setting

Promoted long distance footpaths

Public rights of way

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
Yorkshire Dales Local Plan 2015-2030

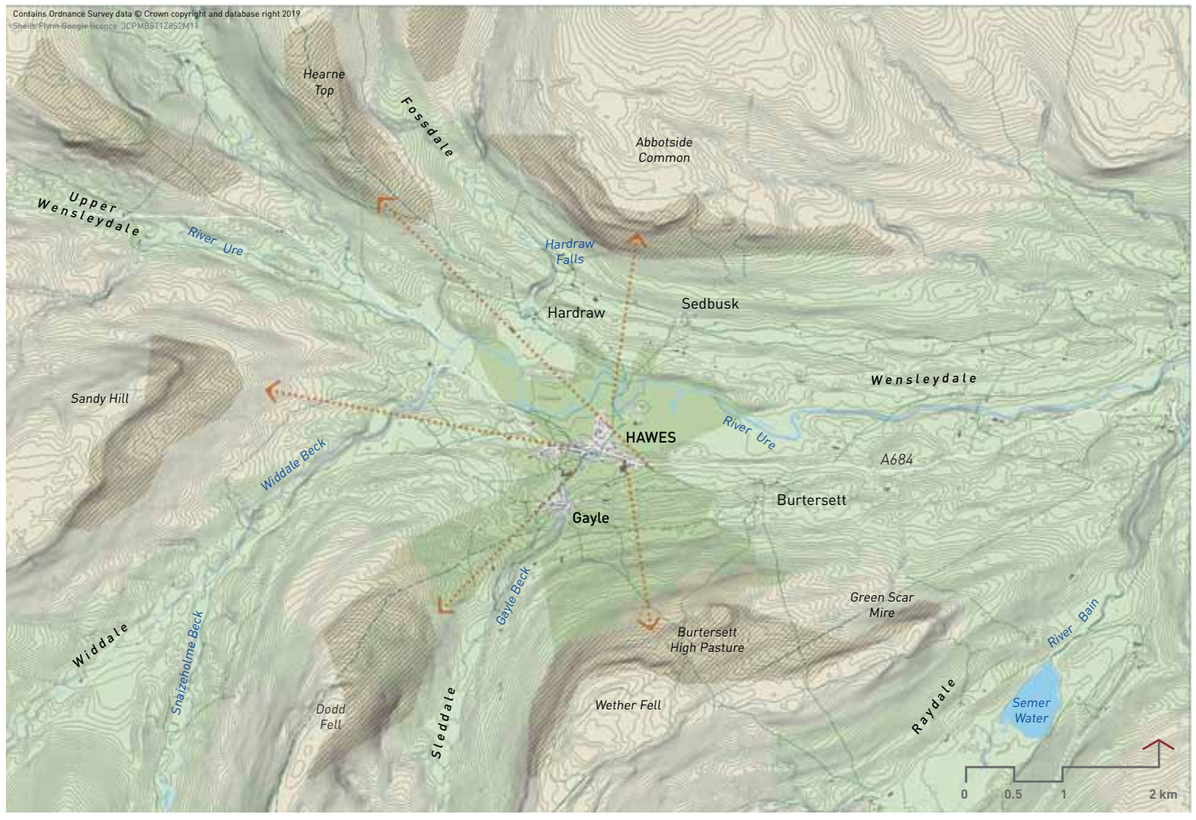
Important open spaces

Allocated business development sites

Allocated housing development sites

Hawes/Gayle

Figure C2.1
Hawes/Gayle - landscape setting context



Valley farmland

Protected open upland
Policy L10 - YDNP Local Plan 2015-2030

Landscape setting of Hawes/Gayle
(see Figure C2.2 for detail)

Settlement

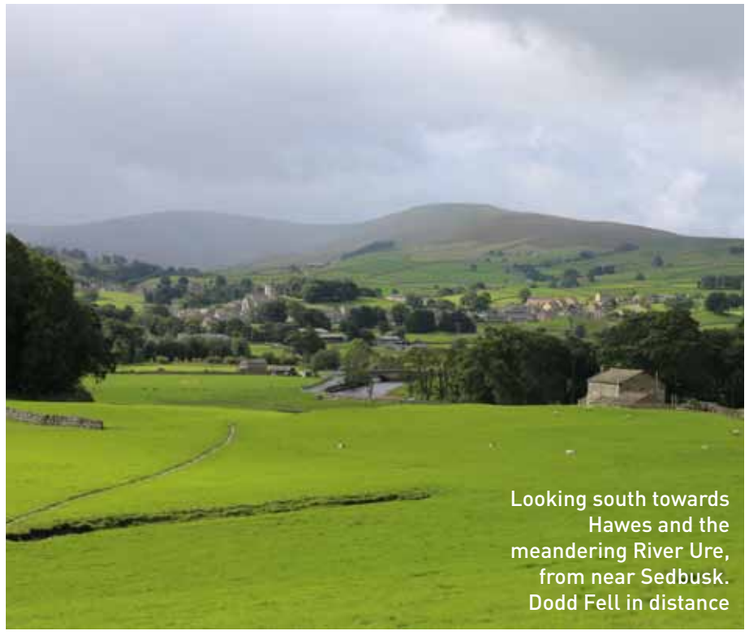
Contour lines (5m interval)

Promoted long distance footpaths

Public rights of way

Locally important ridgelines

Key views which describe the overall landscape setting of Hawes/Gayle



Looking south towards Hawes and the meandering River Ure, from near Sedbusk. Dodd Fell in distance

Landscape setting

The small market town of Hawes is sited on the undulating southern margins of the River Ure floodplain, alongside the tributary of Gayle Beck. The small village of Gayle is a historic mill settlement which developed at a fording point on Gayle Beck just to the south of Hawes. The two settlements share an attractive setting in the broad, sweeping landscape of Upper-Mid Wensleydale.

The twin settlements are at the confluence of several tributary dales: Sleddale (drained by Gayle Beck) is to the south, Widdale to the south west, Upper Wensleydale to the north west and Fossdale to the north. The resulting steep slopes and high summits that have been carved by the tributary streams in the banded rocks of the Yoredale series have created a dramatic and complex topographic setting. There are long views from Hawes-Gayle to the surrounding high fells. The stepped profiles and slab-top summits of Wether Fell and Dodd Fell to the south and Sandy Hill to the west are particularly distinctive. Abbotside Common forms a more solid massif to the north.

Figure C2.1 illustrates this dramatic landscape setting and shows the principal ridgelines which form the horizon in views from Hawes and Gayle.



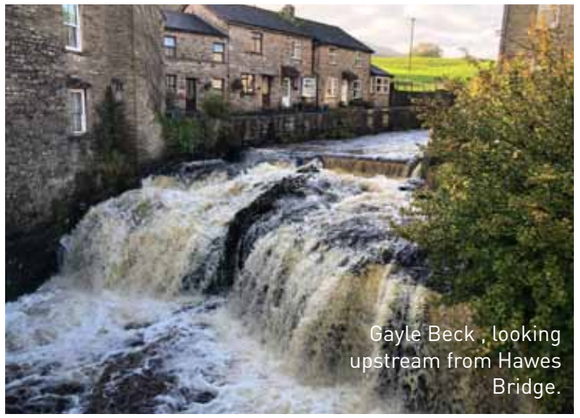
Village of Gayle, looking north from Beggarman's Road on the slopes of Wether Fell Side



Gayle Beck and the River Ure floodplain to the west of Hawes. Floshes Hill is to the right of the photo



Pennine Way crossing the landscape that separates Hawes and Gayle; central drumlin is on the right



Gayle Beck , looking upstream from Hawes Bridge.



Pennine Way between Gayle and Hawes,

Figure C2.2 provides a more detailed analysis of the landscape setting of Hawes and Gayle, taking account of views into and out from the town and its principal gateway approaches. The areas which are broadly visible in views from and to the town are shown in a darker, brighter tone. Box C2 sets out the most important (and sensitive) landscape features and elements which contribute to the landscape setting of Hawes and Gayle.

At a local scale, views are contained by the numerous steep rounded drumlins and post-glacial landforms that are scattered along the River Ure floodplain and lower valley slopes. These rounded landforms, the sequence of waterfalls along Gayle Beck, as it steps down the valley side slopes, and the pepperpot form of Hawes church tower add layers of complexity to local views.

Gayle Beck bisects and links the two settlements. The open landscape alongside the beck, which is visually contained by several drumlins, is a distinctive and critically important component of the landscape which separates the two settlements of Gayle and Hawes. The Pennine Way follows the lower contours of this central drumlin alongside Gayle Beck to its confluence with the River Ure at Haylands Bridge to the north. This well traversed pedestrian thoroughfare provides a popular connection between the two settlements, with a distinctive sequence of views. The tower of the Church of St Margarets is a frequent visual focus within these views. The local landscape setting of Hawes-Gayle can be subdivided into three distinct components:

The floodplain of the River Ure to the north of Hawes. There are striking views to the meandering river from the A684, but the river channel can only be glimpsed in views from the town as it is contained by a series of drumlins which form an intimate 'landscape edge'. The former railway line, which follows the southern margins of the floodplain, also contributes to a subtle sense of separation between the main settlement and the industrial area and caravan site on the edge of the floodplain to the north. Two of the floodplain drumlins are distinctive local landmarks - Floshes Hill to the west and The Knolls to the east.

The southern valley edge and the green space which separates Hawes and Gayle - The landscape setting of Hawes is dominated by drumlin-type landforms and influenced by the large buildings associated with the Wensleydale Cheese Factory (which are cut into the side of a drumlin which lies immediately to the south of the town centre) and the livestock market, to the south of the A684. The historic pattern of stone walled fields is a distinctive feature of this central valley side landscape.

The slopes of Wether Fell to the south - Wether Fellside, and the deep open 'bowl' of Sleddale form an upland landscape setting to the hamlet of Gayle. There are stunning long views northwards from the slopes of Wether Fell to the two settlements in which Gayle Beck is visible as a prominent silvery thread as it cuts down, winding through the undulating lower valley slopes, across a broad stone ford in the historic centre of Gayle before stepping down via a sequence of falls en route to Hawes and the River Ure. The pocked and flat broken slabs of limestone bedrock beneath Gayle Beck are exposed when water levels are low.

BOX C2

Important landscape elements and features which contribute to the landscape setting of Hawes and Gayle

The majority of the landscape setting for the twin settlements of Hawes and Gayle is sensitive to development. However, within this landscape setting, t**he most important (and sensitive) landscape features and elements are:**

- The sweeping slopes of Wether Fell and Dodd Fell, to the south and west, which form the backdrop to local views and the immediate topographical context for Hawes and Gayle
- The slopes and rounded ridgetops of the drumlins that enclose and frame local views from within the two settlements, particularly Floshes Hill and the Knolls on the River Ure floodplain to the north and the central drumlin that lies between the two settlements.
- The sequence of informal green spaces alongside the Gayle Beck, which are also the setting for the Pennine Way and which provide critically important separation between the two settlements
- The landmark buildings and bridges, which form a sequence of views along the Gayle Beck, including Gayle Bridge, Gayle Mill (a scheduled monument) the Church of St Margarets and Haylands Bridge
- The historic pattern of walled fields on the undulating lower fell slopes
- The groups of mature trees along Gayle Beck, on the slopes of local drumlins and along some local tracks and lanes, which help to contain and structure local views, diminishing the visual impact of the larger buildings on the southern fringes of Hawes



Walled pastures to north of Old Gayle Lane

Figure C2.2
Hawes/Gayle - Landscape setting analysis



Land within broad landscape setting of Hawes/Gayle

Valley farmland outside the landscape setting

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses and water bodies

Principal structuring drumlin landforms, which contain and contribute to the character and quality of the Hawes/Gayle landscape setting

Church tower (upstanding landmarks)

Key views which describe the Hawes/Gayle overall landscape setting

Promoted long distance footpaths

Public rights of way

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
Yorkshire Dales Local Plan 2015-2030

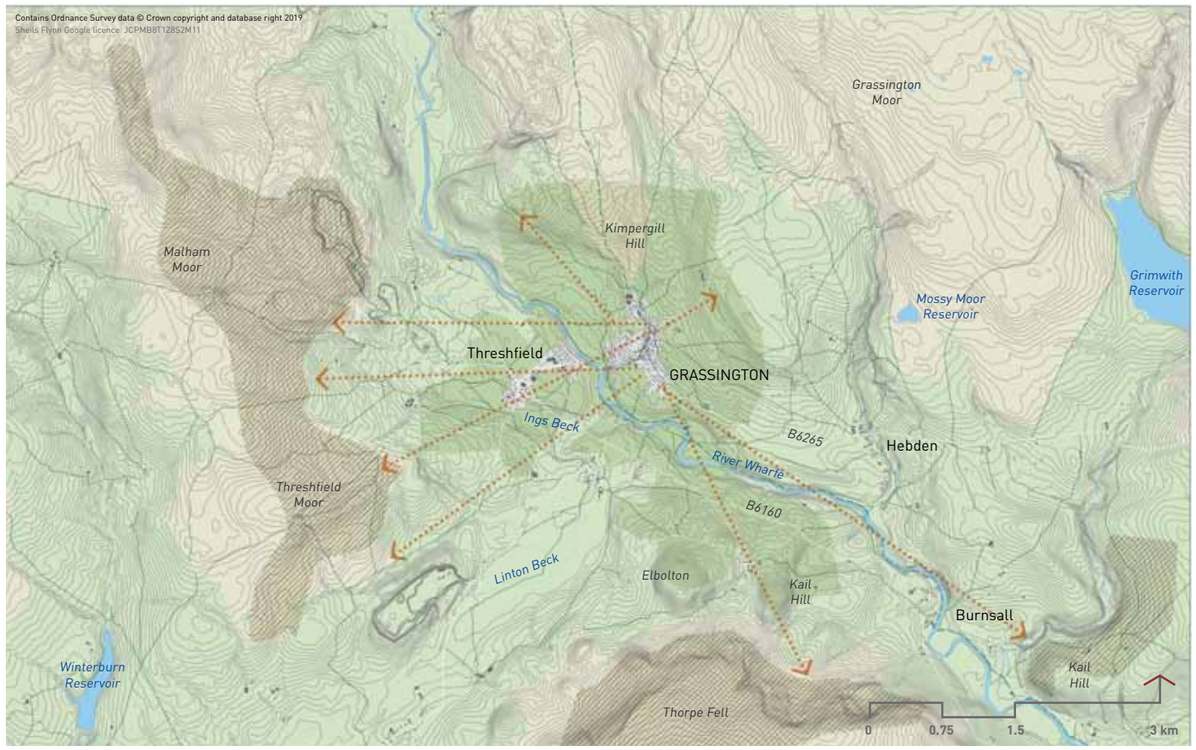
Important open spaces

Allocated housing development sites

Grassington/Threshfield

Figure C3.1

Grassington/Threshfield - landscape setting context



- Valley farmland
- Protected open upland
  Policy L10 - YDNP Local Plan 2015-2030
- Landscape setting of Grassington and Threshfield
  (see Figure C3.2 for detail)
- Settlement
- Contour lines (5m interval)
- Promoted long distance footpaths
- Public rights of way
- Locally important ridgelines
- Key views which describe the overall landscape setting of Grassington and Threshfield



Sedber Lane connects Grassington and Linton Falls



Main Street, Grassington

Landscape setting

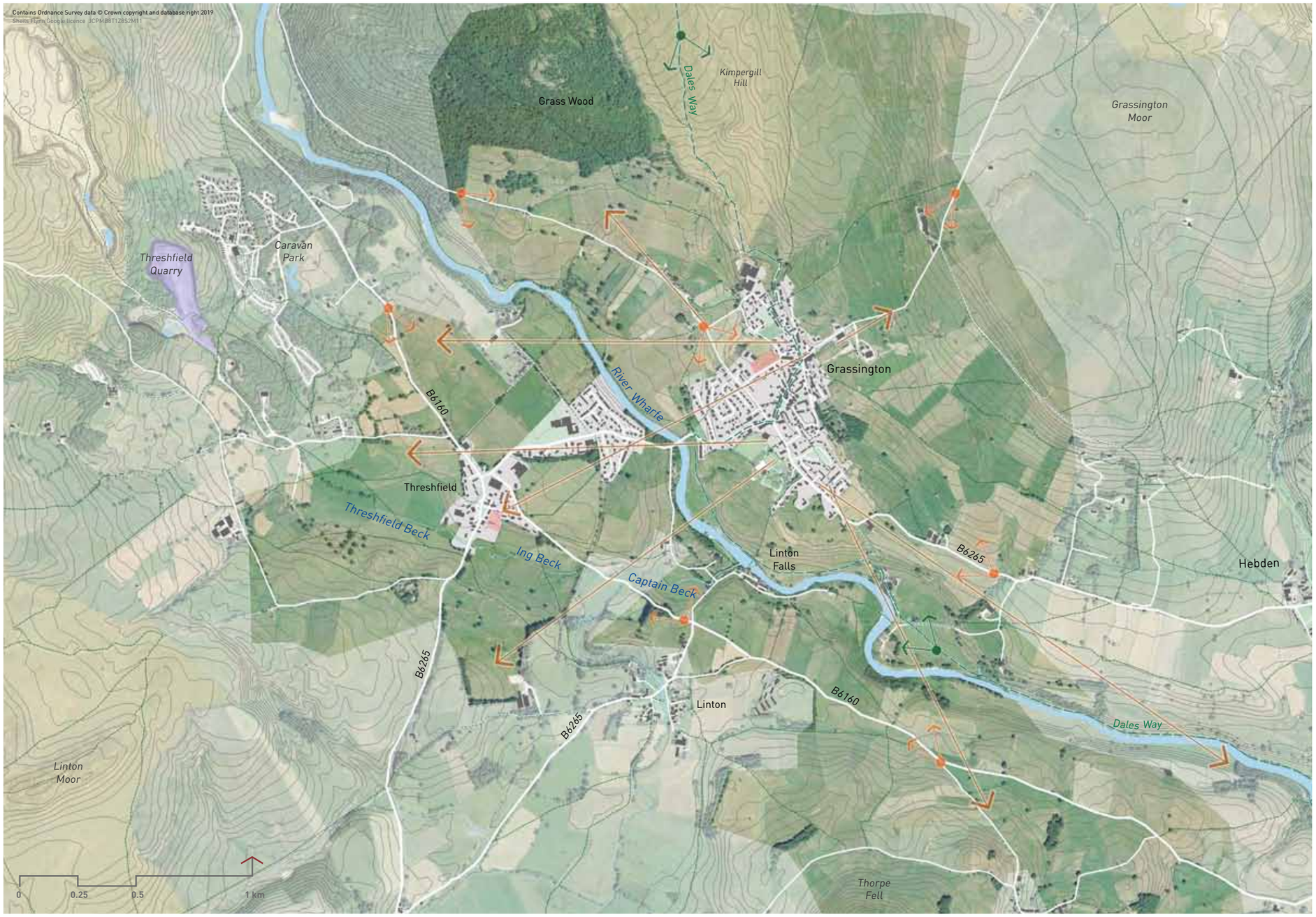
The settlements of Grassington and Threshfield developed on shallow terraces on the lower slopes of Wharfedale above a section of the River Wharfe which flows within an incised channel. This is a relatively broad part of Wharfedale, where the North Craven Fault cuts across Wharfedale to create a bowl-shaped, undulating topography. The area has an exceptionally rich archaeology, with a concentration of sites dating from Bronze Age to medieval times, including Romano-British settlements and deserted medieval villages on the on the slopes of Kimpergill Hill, which are left to the north of the existing settlement of Grassington.

Both settlements grew from the 17th century as a result of the thriving lead and coal mining and limestone quarrying industries on the surrounding moors and Linton Mill on the River Wharfe. The twin sites also benefitted from their accessibility, with a bridge across the River Wharfe and road connections



View north towards Grassington from the B6160 near Linton across undulating valley of Ings Beck-Captain's Beck

Figure C3.2
Grassington/Threshfield - Landscape setting analysis



Land within broad landscape setting of Grassington/Threshfield

Valley farmland (outside landscape setting)

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses and water bodies

Key views which describe the overall landscape setting of Grassington and Threshfield

Promoted long distance footpaths

Public rights of way

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
Yorkshire Dales Local Plan 2015-2030

Important open spaces

Allocated business development sites

Allocated housing development sites

south-east along Wharfedale to Bolton Bridge, south-west via Cracoe along the Eller Beck valley to Skipton and east across the moors to Pately Bridge. The arrival of the Yorkshire Dales Railway to Threshfield in 1909 led to further growth as the area became an important visitor destination..

Figure C3.1 illustrates this dramatic landscape setting and shows the principal ridgelines which form the horizon in local views from Grassington and Threshfield.

Figure C3.2 provides a more detailed analysis of the landscape setting of Grassington and Threshfield taking account of views into and out from the settlements and their principal gateway approaches. The areas which are broadly visible in views from and to the settlements are shown in a darker, brighter tone. Kimbergill Hill, with Grass Wood and Bastow Wood forms a continuous relatively close landform horizon to the east and north, but there are longer views to the south and west, where views are contained by the upland ridges of Thorpe Fell, Threshfield Moor and Malham Moor. The distinctive conical summits of Elbolton and the two Kail Hills (remnants of limestone reef knolls) are landmarks on the fringes of the settlements' landscape setting to the south. Box C3 sets out the most important (and sensitive) landscape features and elements which contribute to the landscape setting of Grassington and Threshfield.

Views to Grassington from the south (B6265 and B6160) show the town on the edge of the valley slope terrace, above the deeply incised bluff of the River Wharfe. Two large houses (Kirkfield and Elbolton), which are set within belts of mature trees, give a parkland character to the southern fringes of the town. Grassington steps upslope, with the narrow streets of terraced cottages petering out as a network of moorland tracks. Both Grassington and Threshfield are surrounded by long rectangular pastures enclosed by stone walls, which form a distinctive 'layered' pattern in local gateway views. Given the widespread use of local stone for buildings and walls, the walled fields seem to anchor the settlements within their wider landscape setting.

Grassington and the historic part of Threshfield village have tightly clustered layouts, but the Station Road area of Threshfield, on the east banks of the River Wharfe, has a more loose-knit character, with a mix



Narrow streets and terraced miners' cottages



View south-west from northern part of Grassington

of residential, institutional and leisure developments, including sports pitches associated with Upper Wharfedale School and the Wharfedale RUFC).

The settlements are separated by the deeply incised channel of the River Wharfe. There are attractive tree-lined riverside walks (including The Dales Way) connecting a string of individual dwellings (farm houses and cottages), the former mill site at Linton Falls and the Church of St Michael and All Angels.

The village of Threshfield is on the northern slopes of the small valley of Threshfield Beck-Ings Beck, which forms a distinctive 'edge' with the sense of a gateway to the landscape setting of Threshfield on the western side of Wharfedale. To the north west of Threshfield, the extensive Long Ashes caravan park is set within mature woodland on the slopes of Malham Moor. To the west, the former Threshfield Quarry site is well screened by mature woodland. Ambitious future plans for this site include an integrated mix of business, education and leisure facilities.

BOX C3

Important landscape elements and features which contribute to the landscape setting of Grassington and Threshfield

The majority of the landscape setting for the settlements of Grassington and Threshfield is sensitive to development. However, within this landscape setting, t**he most important (and sensitive) landscape features and elements are:**

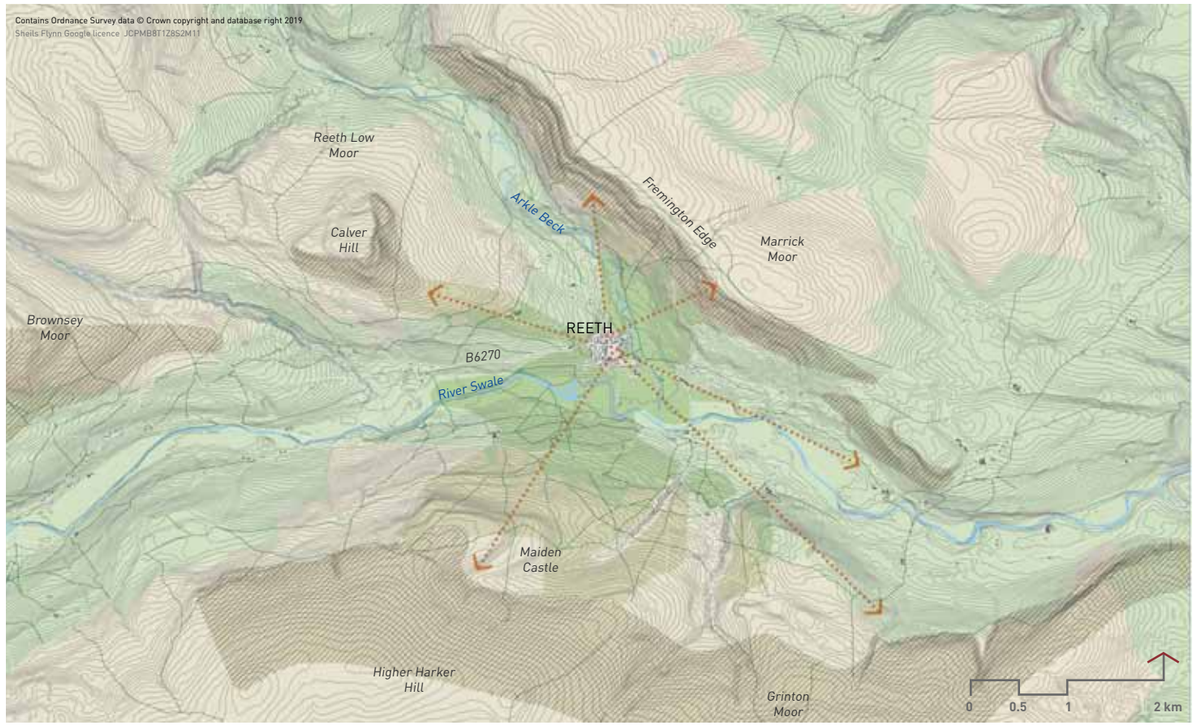
- The distinctive topographical relationship between both settlements and the River Wharfe, which is defined by broad sloping terraces on the lower dale slopes and a deeply incised river channel.
- The striking historic pattern of stone walls which enclose the long rectangular pastures on the slopes of the dale surrounding both settlements.
- The incised corridor of the River Wharfe, including the tree-lined river bank and the network of walled valley slope and riverside paths that connect Grassington and Threshfield with the former mill site of Linton Falls and Linton Parish Church.
- The network of narrow, walled moorland tracks that connect Grassington and Threshfield with the former mines, coalfields and limestone quarries on the adjacent upland moors.
- The valley of Threshfield Beck-Ings Beck-Captain Beck to the south of Threshfield, which has an undulating landform and an attractive, intimate scale.
- Views from the B6160 to the southern fringes of Grassington, in which there is an attractive composition of prominent individual dwellings against a backdrop of mature woodland and specimen trees.



View northwards towards Grassington from B6160 showing the terraced site above the steep river bluff

Reeth

Figure C4.1
Reeth - landscape setting context



Landscape setting

Reeth has a stunning landscape setting on the broad south-facing slopes of Calver Hill close to the confluence of Arkle Beck and the River Swale. This is a relatively narrow part of Swaledale and the village is prominent in long views from Higher Harker Hill (and the Iron Age fort of Maiden Castle) to the south. From this vantage point, Reeth is seen against the rounded summit of Calver Hill and the sheer rocky backdrop of Fremington Edge at the entrance to Arkengarthdale.

Reeth is sited on the northern margins of the River Swale floodplain at a point where the Swale meanders in a broad loop across extensive wetlands and water meadows. There is a striking contrast between the sinuous river channel and pools of water on the floodplain, the walled pastures on the lower valley slopes and the steep, rocky moorlands above. Figure C4.1 illustrates this dramatic landscape setting and shows the principal ridgelines which form the horizon in views from Reeth.


Reeth and the Swale floodplain from the slopes of Harkerside Moor to the south


The village green and layout of Reeth is clear in the view from Grinton Moor to the south east

Figure C4.2 provides a more detailed analysis of Reeth's landscape setting, taking account of views into and out from the village and its principal gateway approaches. The areas which are broadly visible in views from and to the village are shown in a darker, brighter tone. Box B4 sets out the most important (and sensitive) landscape features and elements which contribute to Reeth's landscape setting.

The village of Reeth has developed around a large central green and market place, which slopes to the south and offers stunning views across Swaledale to Harkerside Moor and Grinton Moor. The village green is surrounded by hotels, shops and cafes. This is the historic core of the settlement; there is an area of more recent development to the east.

Despite the long, open views to Reeth from the surrounding uplands, the village is surprisingly well hidden in local views. The school is the first indication of settlement on the B6270 approach from the west and the first glimpses of Reeth across the floodplain from the south and east do not occur until just north of the historical Grinton Bridge crossing. From the north, views to the village are hidden by the ridge of Black Hill.

At a local scale, the gateway to Reeth from the east occurs at Reeth Bridge, which crosses Arkle Beck. The adjacent hamlets of Low Fremington and High Fremington and the village of Grinton, which lies immediately to the south of Grinton Bridge, are also highly visible in views across and along Swaledale and form an important part of the wider landscape setting of Reeth.



The sequence of small greens on the approach to Reeth from the north



Back Lane on the southern edge of Reeth

BOX C4

Important landscape elements and features which contribute to Reeth's landscape setting

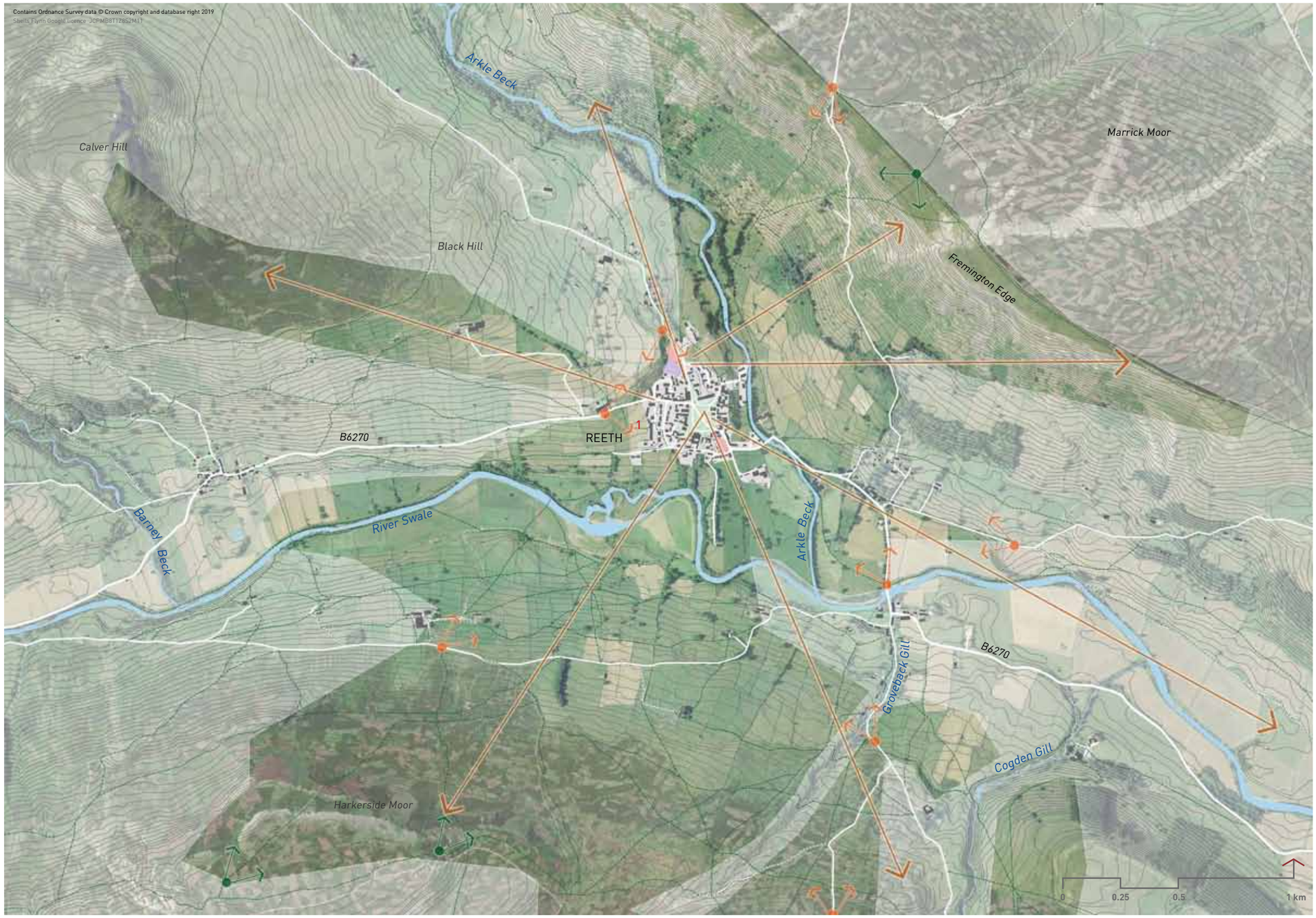
Given the elevated fell slope views from the High Harker Hill and Grinton Moor to the south, the majority of Reeth's landscape setting is sensitive to development. However, within this landscape setting, t**he most important (and sensitive) landscape features and elements are:**

- The green, open character of Reeth's large central village green and the smaller greens on the outer fringes of the village, which contribute to the distinctive sequence of views on the approaches to the village centre.
- The striking contrast between the tightly clustered village and the open walled pastures, woodlands and moorlands that surround Reeth. Linear development along the approaches to Reeth would not be appropriate.
- The remaining narrow areas of open countryside on the slopes of Arkle Beck which separate Reeth from the hamlets of High Fremington and Low Fremington to the east and, further downslope, the fields which lie between these two hamlets and Grinton Bridge. It is important that these areas remain undeveloped to protect the landscape setting of Reeth and the sequence of gateway views on the B6270 approach from the south east.
- The historic pattern of walled fields and field barns that is characteristic of the lower slopes of Calver Hill and which 'anchors' the village within its wider landscape setting in the elevated views from the south.
- The characteristic relationship between village edge and the floodplains of both the Arkle Beck to the east and the River Swale to the south, which is defined by an inter-connecting pattern of mature trees. The straight lines of hedgerow trees that enclose the long rectangular fields between Reeth and the floodplains connect to the sinuous bands of riverside trees.



View southwards across Reeth's central village green

Figure C4.2
Reeth - Landscape setting analysis



Land within broad landscape setting of Reeth

Valley farmland (outside landscape setting)

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses and water bodies

Key views which describe Reeth's overall landscape setting

Public rights of way

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
Yorkshire Dales Local Plan 2015-2030

Important open spaces

Allocated business development sites

Allocated housing development sites

Barbon


Centre of Barbon, looking south along the High Street

Landscape setting

The village of Barbon is sited on the eastern fringe of the River Lune Valley, on the rolling footslopes of Barbon Low Fell. The smaller watercourse of Barbon Beck flows westwards through the village, from the steep wooded valley of Barbondale to the River Lune.

The landscape setting of the village is illustrated on Figure C5, which shows the importance of the open, rolling slopes of Middleton Fell to the north-east and Barbon Low Fell to the south-east, which provide a striking backdrop to views from Barbon. There are also views to and from the village along the valley, which are generally enclosed by woodland (Ellers to the north) and hedgerow trees. At a broader scale, the low drumlins on the valley floor of the Lune valley provide enclosure to the west. The wooded historical parkland landscapes of Barbon Park (which include Ellers) are prominent in eastern views to the fells.

Barbon is well connected by a network of narrow lanes, which link to the A683 along the Lune Valley to the west. The gateway to the village from the west is Hodge Bridge (a scheduled monument); from the south there is a gradual gateway, enclosed by groups of trees along narrow lanes; from the north it is the minor lane junction at Eller Beck. Mature hedgerow oak trees are a feature of the approaches to the village centre and the Church of St Bartholomew (a Grade II* listed building) is a landmark in local views.

The attractive village centre is characterised by terraces and groups of buildings, separated by small paddocks and orchards. The open fields within the village contribute to its distinctive rural sense of place. Box C5 sets out the most important (and sensitive) landscape features and elements which contribute to Barbon's landscape setting.


Stone walls, barns and paddocks Middleton Fell is a backdrop to local views



Newly planted orchard and stone walled paddocks in the centre of Barbon

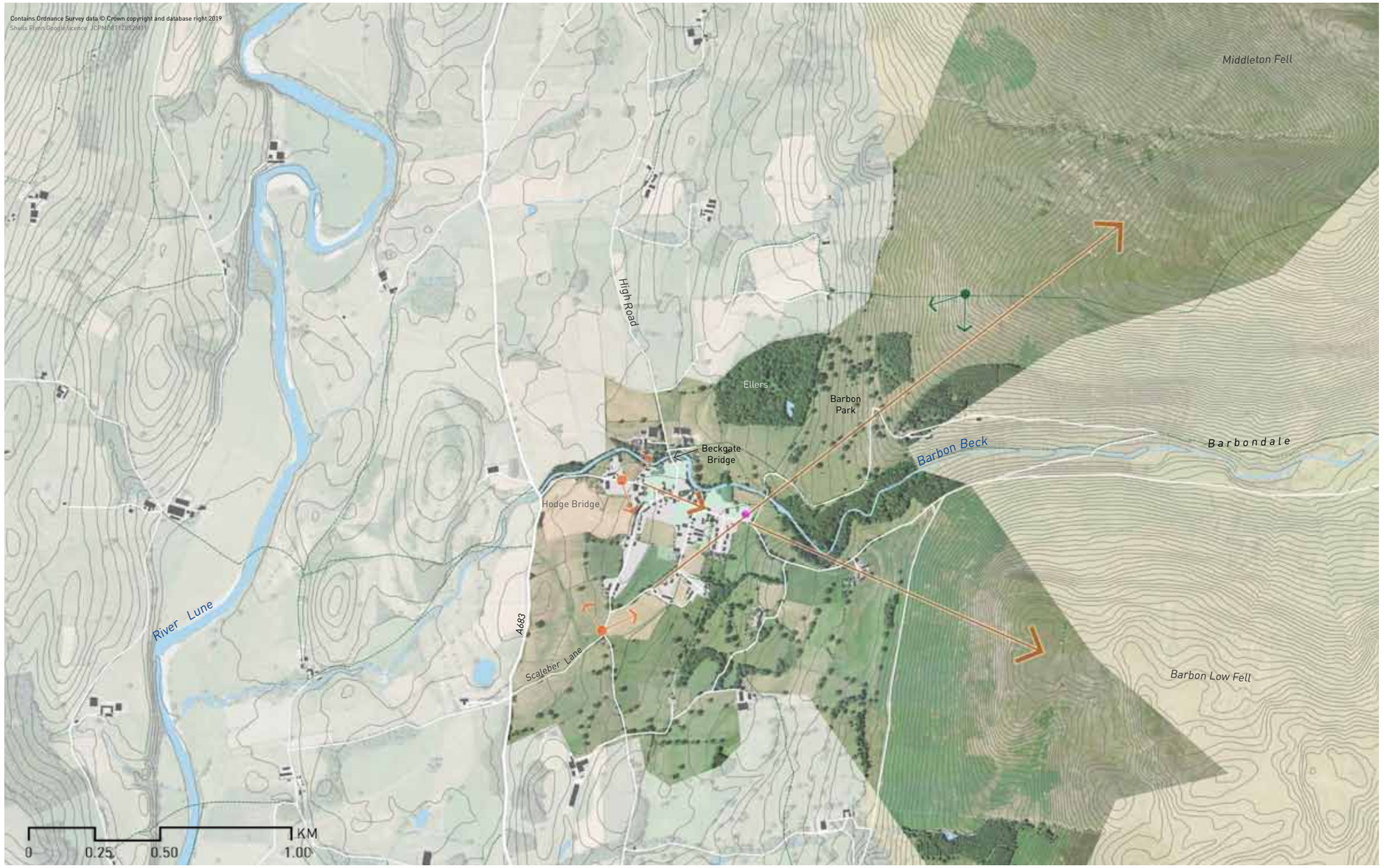
BOX C5

Landscape elements and features which contribute to Barbon's landscape setting

The views north-east, east and south-east from the village of Barbon are the most sensitive as the footslopes of the dramatic upland fells form a backdrop to local views. T**he most important (and sensitive) landscape features and elements within Barbon are:**

- The smooth, open slopes of Middleton Fell and Barbon Low Fell, dissected by the small wooded valley of Barbondale, which form the backdrop to views to the east of Barbon
- The small open paddocks and orchards that separate groups of buildings in the centre of the historic village
- Stone walls and outbuildings within the village, which integrate houses, pubs, outbuildings and fields within a unified composition
- Views to the Church of St Batholomew, for instance from Scaleber Lane and from Barbondale
- Views south and south-east to the village (and the fells) from High Road to the north
- The water's edge landscapes alongside Barbon Beck, including the historic bridges of Hodge Bridge (a scheduled monument) and Beckgate Bridge (a grade II listed building)
- Mature hedgerow oaks trees and linear woodland belts which enclose and frame views along local lanes at gateways to the village.

Figure C5
Barbon - landscape setting analysis



Land within broad landscape setting of Barbon

Valley farmland (outside landscape setting)

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses

Church tower (upstanding landmarks)

Key views which describe Barbon's overall landscape setting

Public rights of way

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
South Lakeland District Council Local Plan Land Allocations DPD, December 2013

Amenity open space (no public access)

Casterton

Landscape setting

The village of Casterton is on the eastern fringes of the Lune Valley close to the footslopes of Brownthwaite, a dramatic, open rolling upland ridge on the edge of Leck Fell. Casterton, and the hamlet of High Casterton to the south, are just 1km north-east of Kirby Lonsdale and the boundary of the YDNP.

The landscape setting of Casterton is illustrated on Figure C6. Views from and to the village are contained by the broad ribbons of woodland along the River Lune and the tributary of Mill Gill to the west and by the ridgetops of the fells to the east, which form a dramatic backdrop to local views. At a local scale, views to the east are enclosed by the rounded landforms of two drumlins on the lower slopes of Brownthwaite.

The principal north-south road along the Lune Valley (the A683) passes through the larger village of Casterton. The Church of Holy Trinity is a prominent landmark on the elevated northern side of the road in the centre of the village; the land falls away steeply to the wooded river valley to the west and the playing fields and buildings associated with part of Sedbergh Preparatory School are prominent in the gateway to Casterton from the north. A second group of school buildings, on the well treed slopes of a drumlin to the east of the church, have a more enclosed landscape setting. Away from the A683, the approaches to Casterton are along narrow rural lanes with high hedgerows. Views into and out from the village are often constrained by these hedgerows and by linear built development, but the fells always form a backdrop to longer village views.



Eastward views to Brownthwaite and Leck Fell (railway embankment in middle distance)

The hamlet of High Casterton is separated from Casterton by Casterton Golf Course. A cluster of houses at the crossroads to the south of Casterton is known as Bee Nest and the groups of buildings along the narrow lane between Casterton/Bee Nest and High Casterton are separated by small fields, with most local views containing buildings seen across an open field. The approaches to High Casterton from the north generally have a more open aspect, with attractive views eastwards towards the slopes of the fells. At a local scale, the embankment of the disused former Lune Valley Railway is a feature in these views.

Box C6 sets out the most important (and sensitive) landscape features and elements which contribute to Casterton's landscape setting.

BOX C6

Landscape elements and features which contribute to Casterton's landscape setting

The most important (and sensitive) landscape features and elements within Casterton are:

- The immediate landscape setting on the Church of Holy Trinity (grade II listed) in the centre of Casterton
- The relatively open views on the northern gateway to Casterton, - north-eastwards towards the drumlin and footslopes of Brownthwaite and westwards to the wooded River Lune corridor as the landscape setting of the village can be appreciated and understood in one sweep from this location
- The small open fields that separate the clusters of houses in Casterton/Bee Nest and High Casterton
- The slopes of the drumlins to the east of Casterton
- The small scale, enclosed wooded character of Mill Gill and the Lune Valley to the west
- The network of stone walls that enclose and integrate the fields in the immediate setting of High Casterton
- The relatively open views eastwards towards the fells from High Casterton
- The rural enclosed character of the narrow hedged lanes on the approaches to the villages



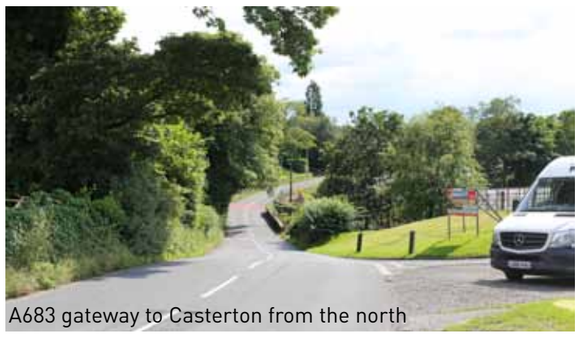
Bee Nest - the houses overlook the golf course



Narrow lane - approach to Casterton (east of A683)

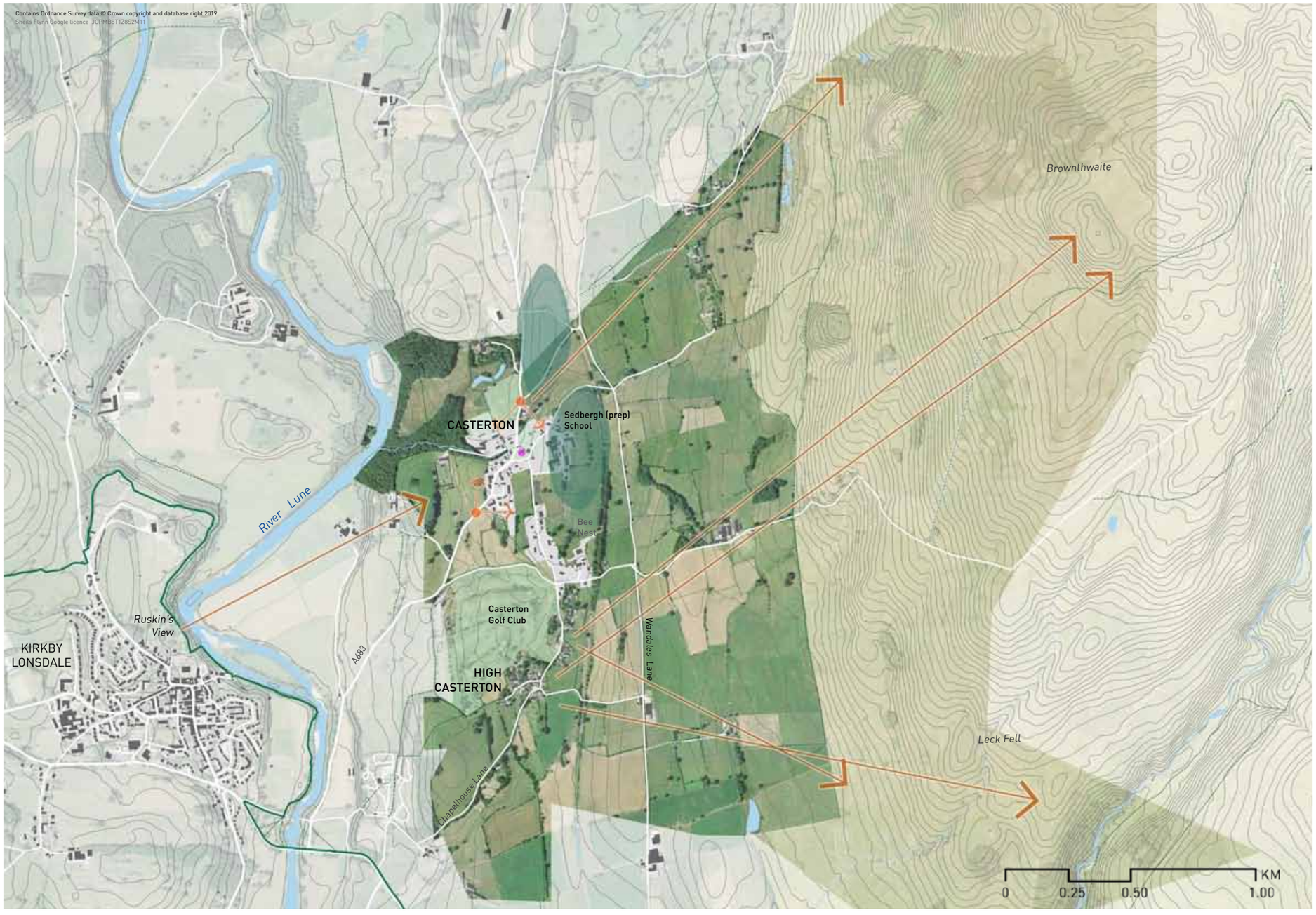


Church of Holy Trinity, from A683



A683 gateway to Casterton from the north

Figure C6
Casterton - landscape setting analysis



Land within broad landscape setting of Casterton

Valley farmland (outside landscape setting)

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses

Principal structuring drumlin landforms, which contain and contribute to the character and quality of Casterton's landscape setting

Church tower (upstanding landmarks)

Key views which describe Casterton's overall landscape setting

Public rights of way

Yorkshire Dales National Park boundary

Principal vehicular route gateway

Local Plan policy designations
South Lakeland District Council Local Plan Land Allocations DPD, December 2013

Amenity open space (no public access)

Long Preston

Landscape setting

Long Preston has developed with a linear form along the A65/Main Street. The road follows the alignment of the contours of the lower slopes of the Ribble Valley on the southern fringes of the National Park. The village is set against a backdrop of the moors to the north and the open marshes of the Ribble Valley to the south.

The Main Street curves as it follows the contours and there is a network of narrow, walled back lanes leading up onto the moors to the north (Newton Moor, Rangeber Hill, Hunter Bark) and to the site of the historic mill complex at Mill Bridge on the Ribble floodplain to the south. The village green is traversed by the A65, so that there are a series of green spaces in the village centre along the curving road.

Occasional gaps in the lines of buildings allow views to the moors to the north and there are dramatic panoramic views across the Ribble Marshes to Pendle Hill (some 18km to the south) from the walled lanes to the south of the village.

Figure C7.1 shows that the landscape setting of Long Preston includes the moorland slopes that form a backdrop to views to the north and an extensive and unchecked area of the Ribble floodplain to the south. The views from the south show how the village is well integrated within its landscape setting; the Main Street and lines of buildings follow the contours and 'fit' comfortably on the slope. A more detailed analysis is presented in Figure C7.2 on page 42.

Parts of Long Preston's historic croft pattern are conserved and the network of walled lanes, which connect the village centre to the church, the site of the former mill and the moorland pastures is a distinctive feature of the Long Preston landscape.

To the south west of Long Preston, the shallow rounded drumlin landform of Bourke's Hill is a local landscape feature, partially containing the long views south across the Ribble floodplain.

Box C7 sets out the most important (and sensitive) landscape features and elements which contribute to Long Preston's landscape setting.

Figure C7.1
Long Preston- landscape setting analysis





View northwards from Back Lane to the south of Long Preston; the slopes of Rangeber Hill and Hunter Bark form a backdrop


View southwards from Back Lane across the Ribble floodplain to the south of Long Preston


Shallow slopes of Bourke's Hill, in views to the south west


Village centre green, off Main Street (A65)


Visual connection between village centre greens and the fells to the north

BOX C7

Landscape elements and features which contribute to Long Preston's landscape setting

The most important (and sensitive) landscape features and elements within Long Preston are:

- The panoramic open views across the Ribble floodplain to the south of the village (outside the YDNP boundary and the views northward to Long Preston from the Ribble Way and Pennine Bridleway promoted routes, in which the landscape setting of the village, aligned along the contours on the lower slopes of the fells, can be appreciated
- The historic network of narrow walled lanes that connect Long Preston to the moors to the north (Green Gate Lane, Scalehaw Lane and Cross Lane) and to the site of the former mill on the marshes to the south (Back Lane).
- The sequence of village greens at the heart of the village and the occasional views out from these greens to the moors to the north, which connect the village to its landscape setting
- The remnant croft pattern on the fringes of the village and its close relationship to the historic pattern of narrow walled lanes
- The rural setting of the parish church of St Mary the Virgin which is surrounded on three sides by open farmland, with pedestrian access via Back Lane, an attractive historic walled lane


Walled fields to the south of the village, on the shallow slopes of the Ribble floodplain


Cross Lane


Pattern of walled fields to the north, off Scalehaw Lane

Figure C7.2
Long Preston- landscape setting analysis (detail)



Land within broad landscape setting of Long Preston

Valley farmland (outside landscape setting)

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses

Structuring drumlin landform which contributes to the character and quality of Long Preston's landscape setting

Church tower (upstanding landmarks)

Key views which describe Long Preston's overall landscape setting

Promoted long distance routes

Public rights of way

Yorkshire Dales National Park Boundary

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
Yorkshire Dales Local Plan 2015-2030, Adopted 2016

Important open spaces

Allocated housing development sites

Embsay

Landscape setting

The village of Embsay is sited on the slopes of Barden Moor, overlooking the valley of Haw Beck. It is dominated by the broken ridge of Skipton Rock Quarry to the south, which cut has chopped the landform of the ridge to the south of the valley; the broken, remnant of the ridge, which is cloaked in broadleaf woodland, forms the skyline in views to the south.

To the north of Embsay, the dramatic dark gritstone crags of Embsay Crag and Eastby Crag are local landmarks, which form the skyline on the moorland slopes.

In 1120 Embsay was the site of an Augustinian Priory (now the site of Embsay Kirk) which moved to Bolton Priory in 1155, leaving only a small religious cell at Embsay. The village subsequently developed as a centre for the textile industry during the Industrial Revolution, with a cluster of mills, including a spinning mill at Whitfield Syke Mill (which was demolished to make way for the construction of Embsay Reservoir) Primrose Mill and Millholme Shed. The mill ponds and chimney alongside Pasture Road are remnants of Primrose Mill and Millholme Shed is being developed as a centre for business and recreation.

The landscape setting of Embsay is illustrated on Figure C8. Views from and to the village are contained by the steep wooded ridgelines of the Haw Park Quarry to the south and Barden Moor to the north. A rounded hill or drumlin on the valley slopes to the south east of the village also contains local views to the Haw Beck valley. There are longer valley views across open farmland to the west of the village.

The village has an semi-industrial character, with rows of terraced houses. Mill buildings remain in the centre of the village and the former mill race and pond off Embsay Beck is a local landscape feature, along with the lane that leads up to Embsay Reservoir, Embsay Crag and the open access land on Barden Moor. The band of mature woodlands alongside Embsay Beck is also an important local landscape feature which defines the historic setting of the mills and the remnant mill chimney in the industrial centre of the village. The beckside woodlands and wetlands are a nature reserve

The Embsay to Bolton Abbey steam railway line, with large sheds and the station on the southern fringes of the village also contributes an active, industrial character.

A network of public rights of way connects the village to the surrounding landscape - alongside the wooded beck, and across the fields to the north of the village to connect to the parish church of St Mary the Virgin, which is surrounded by farmland and overlooks the valley on the north west side of the village.

Box C8 sets out the most important (and sensitive) landscape features and elements which contribute to Embsay's landscape setting.



View to Embsay Crag from Kirk Lane (adjacent to the Church of St Mary the Virgin)



Manor House and Mill Pond on Pasture Road

BOX C8

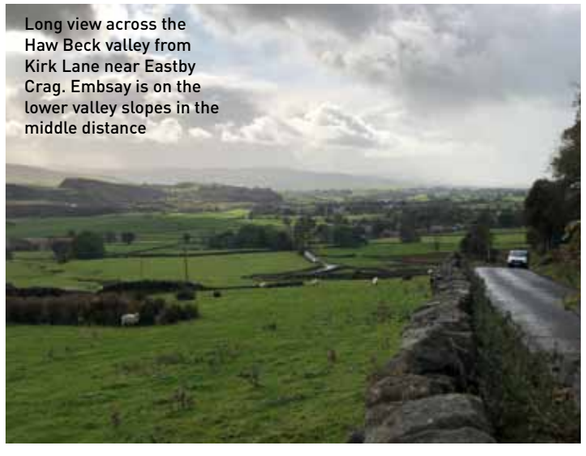
Landscape elements and features which contribute to Embsay's landscape setting

The most important (and sensitive) landscape features and elements within Embsay are:

- The moorland slopes to the north of the village, which sweep up to the dramatic gritstone crags of Embsay Crag and Eastby Crag
- Views across the open countryside to the south and east of Embsay, which provide opportunities to appreciate the landscape of Haw Beck Valley
- The open fields either side of Kirk Lane, which allow views northwards to the crags and eastwards across the valley and which also form the landscape setting for the Church of St Mary the Virgin and provide a clear separation between the villages of Embsay and Eastby
- The slopes of the drumlin landforms on the southern and eastern edges of the village, which frame views across the valley to the distinctive notched profile of the Skipton Rock Quarry from East Lane and Shires Lane
- The steep wooded valley of Embsay Beck, which provides the setting for the remnant historic features associated with the former Primrose Mill and is managed as a nature reserve
- The gateway view looking south west towards Embsay from Kirk Lane, which reveals the village within it's landscape context

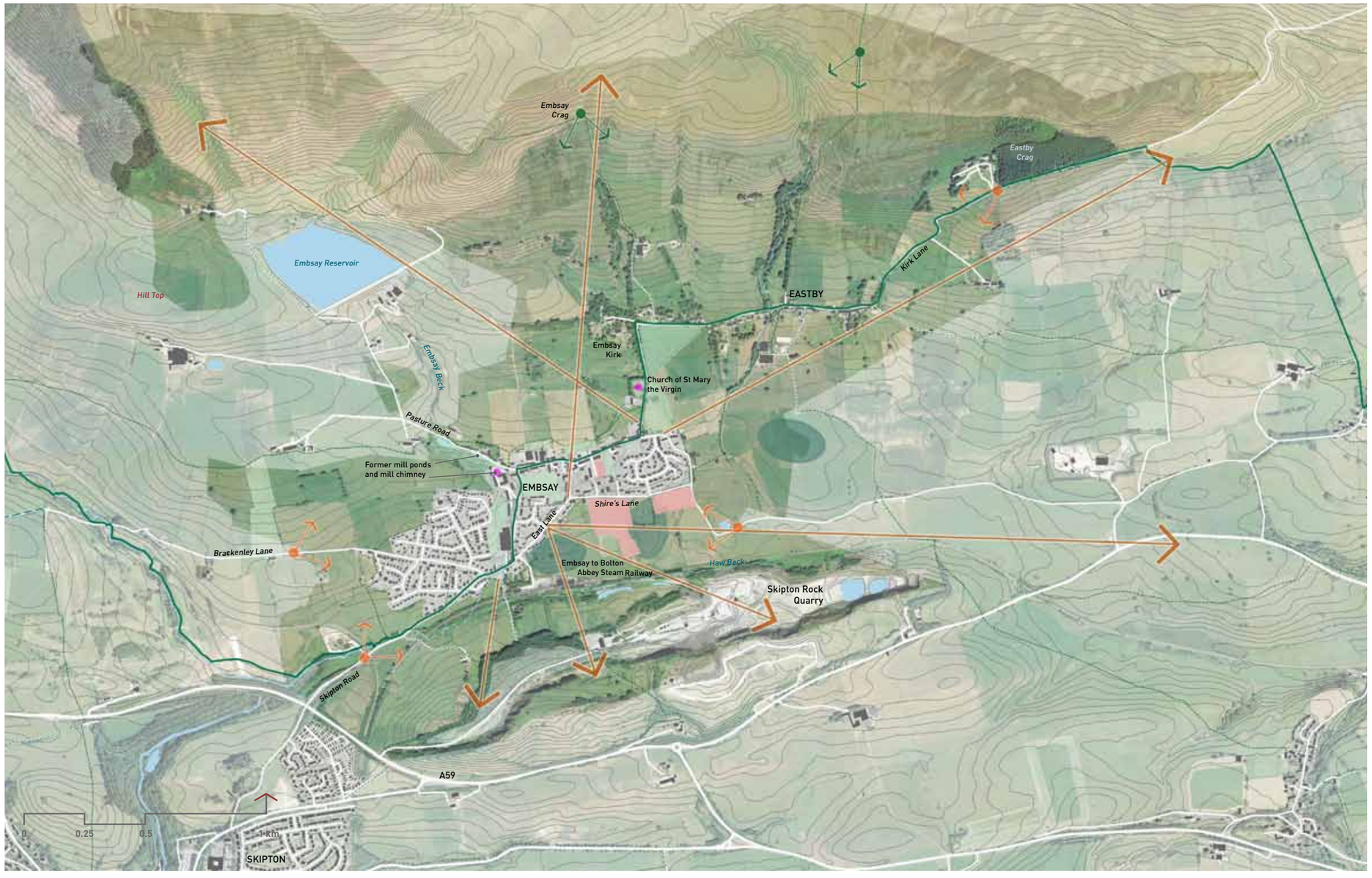


View south east across the Haw Beck Valley from East Lane. The soft, undulating drumlin landforms on the edge of the village contrast with the sharply notched skyline profile of the Skipton Rock Quarry



Long view across the Haw Beck valley from Kirk Lane near Eastby Crag. Embsay is on the lower valley slopes in the middle distance

Figure C8
Embsay - landscape setting analysis



Land within broad landscape setting of Embsay

Valley farmland (outside landscape setting)

Protected open upland (outside landscape setting)
Policy L10 - YDNP Local Plan 2015-2030

Settlement

Contour lines (5m interval)

Water courses

Structuring drumlin landform, which contains and contributes to the character and quality of Embsay's landscape setting

Church tower and former mill chimney (upstanding landmarks)

Key views which describe Embsay's overall landscape setting

Public rights of way

Yorkshire Dales National Park boundary

Principal vehicular route gateway

Principal recreational route gateway

Local Plan policy designations
Yorkshire Dales Local Plan 2015-2030, Adopted 2016 and Craven Local Plan 2012-2031, Adopted November 2019

Important open spaces (YDNP Local Plan)
Local Green Space Designation (Craven Local Plan)

Existing Housing Commitment sites (Craven Local Plan)

ANNEX D

Principal gateways to the National Park

The YDNP landscape character assessment identifies areas of significant sensitivity adjacent to but outside the National Park boundary. The gateways are ordered in an anti-clockwise fashion, starting in the west at Kirkby Lonsdale.

- Kirkby Lonsdale
- Ingleton
- Settle
- Gargrave
- Skipton/Embsay
- Richmond
- Kirkby Stephen
- M6/Tebay

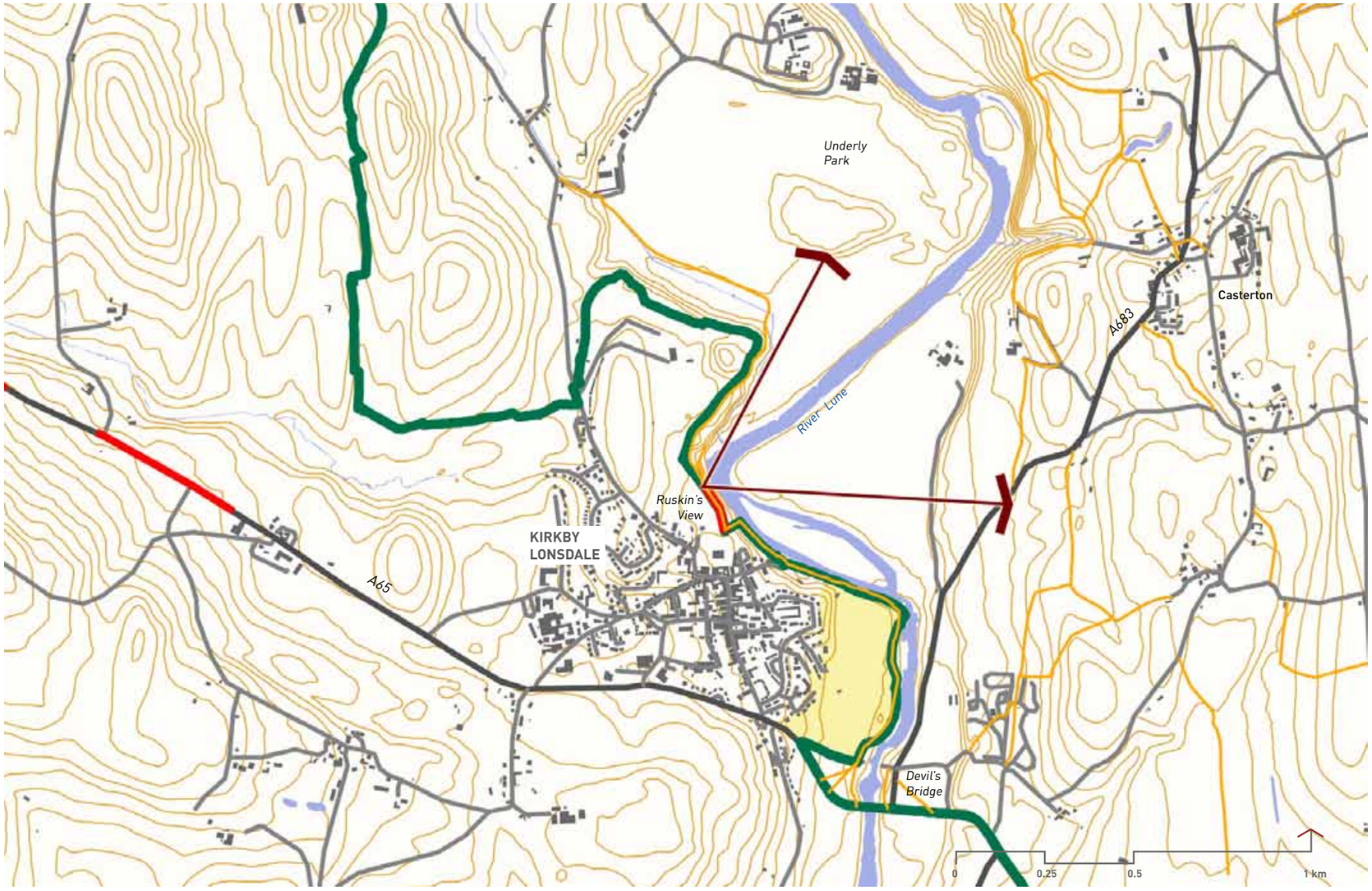
These gateways to the National Park are the principal vehicular routes through settlements that abut or are close to the National Park boundary. The work was undertaken in three steps:

- desktop mapping to show the overall landscape context for each gateway area, including topography, roads and buildings;
- fieldwork to identify the routes from which there are views to the National Park from roads outside the National Park boundary; and
- mapping and reporting to describe the areas of significant sensitivity adjacent to but outside the National Park boundary

Please note that this work is undertaken at a high level of analysis and is intended to inform the development of YDNPA policy to guide future landscape change in the emerging Local Plan; it does not represent policy guidance.

Views from public rights of way are not considered.

Figure D1
Kirkby Lonsdale - National Park gateway analysis

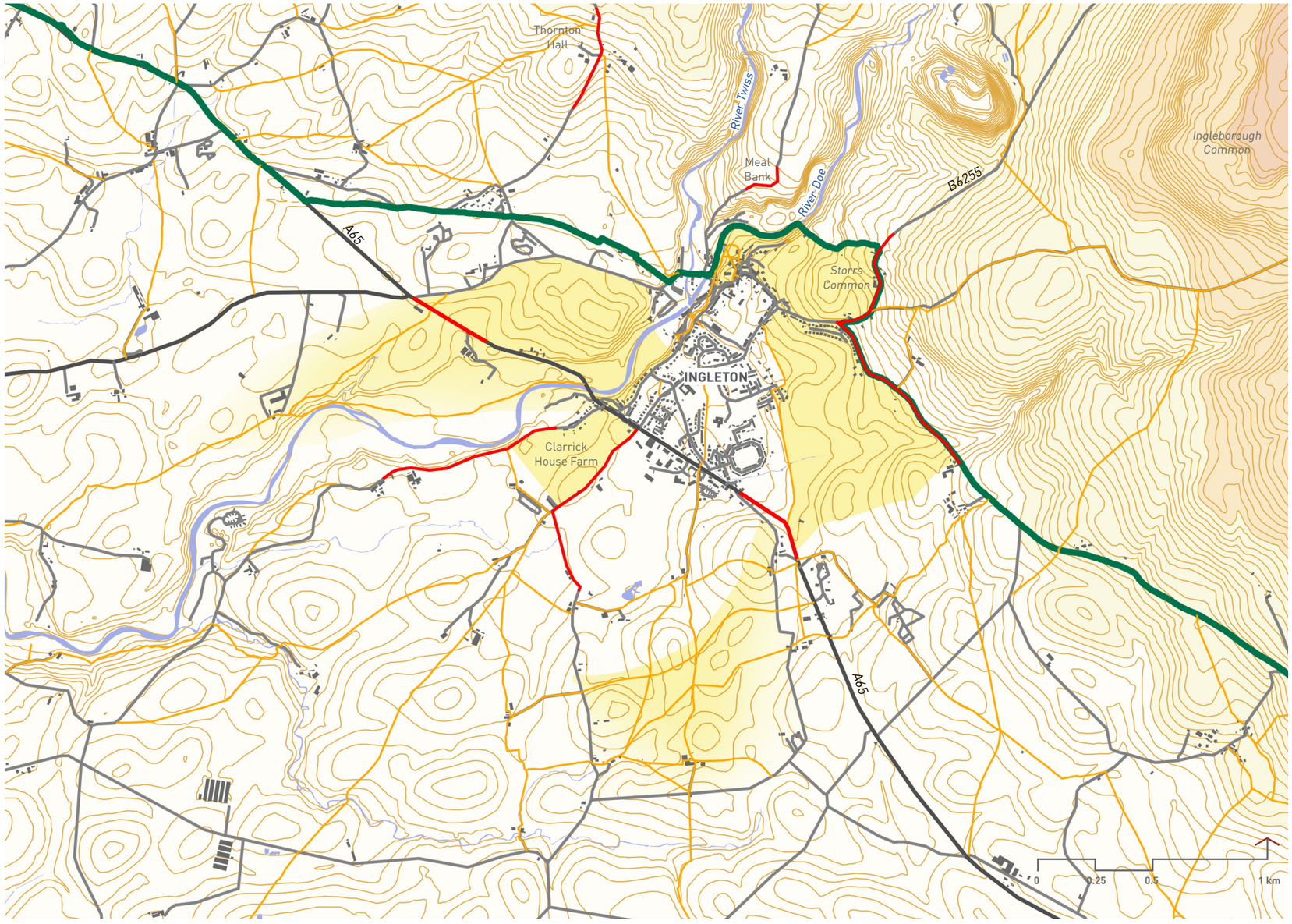


National Park Boundary
Areas of significant sensitivity adjacent to but outside the YDNP boundary
Routes that overlook the gateway area of the National Park
Public rights of way

Topography
Contour (5m interval)
Above 500 m
400 - 500 m
300 - 400 m
200 - 300 m
Below 200 m

The town of Kirkby Lonsdale is right on the edge of the National Park. The urban area is sited on an elevated bluff overlooking the River Lune and the National Park boundary follows the northern edge of the historic town, where the promenade, streets and town houses are sited along the upper terrace of the steep slope overlooking the river. The main approach road (A65) to the town is to the south of Kirkby Lonsdale and there are long gateway views to the slopes of Middleton Fell, Barbon Low Fell and to the distant summit of Ingleborough from the higher land to the west of the town. As the National Park boundary runs along the edge of the floodplain at the foot of a very steep slope, there is only a limited 'area of significant visibility outside the National Park. Instead, views are directed northwards into the National Park, from the historic Devils' Bridge and, most significantly, Ruskin's View from the riverside walkway adjacent to St Mary's Church.

Figure D2
Ingleton - National Park gateway analysis

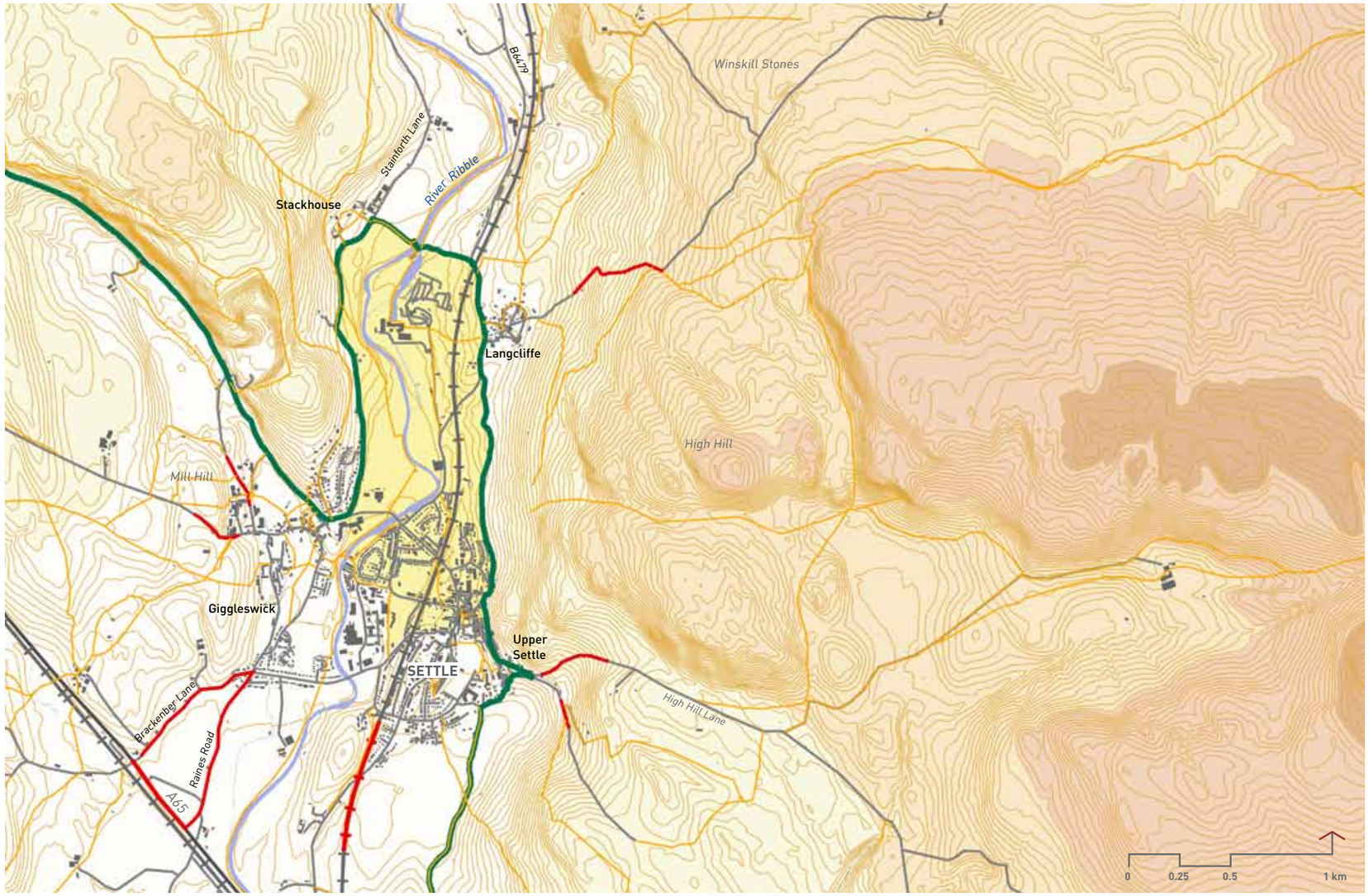


National Park Boundary
Areas of significant sensitivity adjacent to but outside the YDNP boundary
Routes that overlook the gateway area of the National Park
Public rights of way

Topography
Contour (5m interval)
Above 500 m
400 - 500 m
300 - 400 m
200 - 300 m
Below 200 m

The lower slopes of Storrs Common and the banks of the fast flowing River Doe are highly sensitive components of the landscape setting of the National Park at the Ingleton gateway because they form the backdrop to local views to and from the National Park. However, the wider rolling lowland landscape to the SW of Ingleton (near Tenter Banks), to the south (near Clarrick House Farm) and to the east (between the National Park boundary are the A65) are also sensitive as these areas are highly visible in panoramic elevated views from Storrs Common, Meal Bank and Thornton Hall.

Figure D3
Settle - National Park gateway analysis

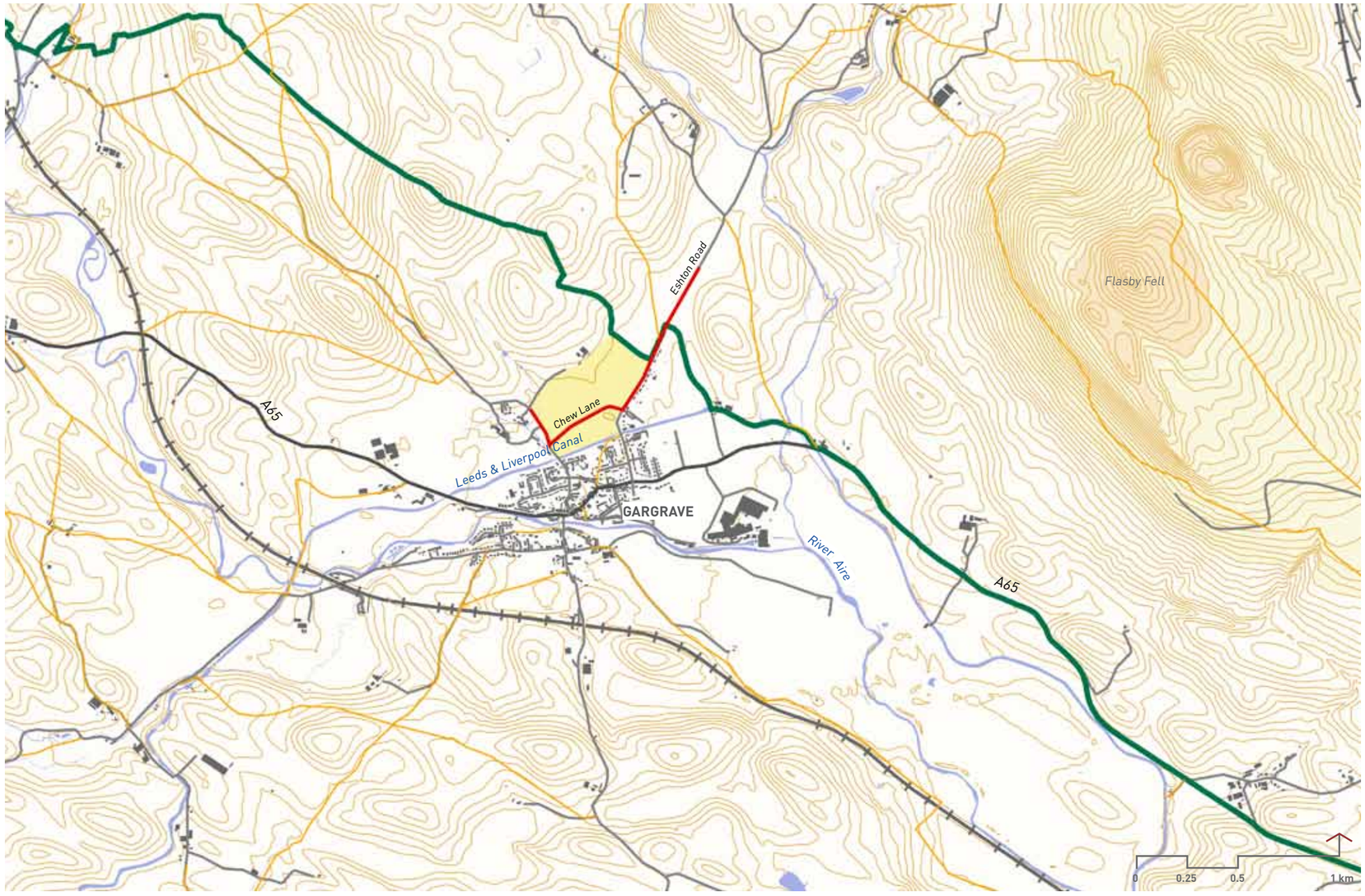


National Park Boundary
Areas of significant sensitivity adjacent to but outside the YDNP boundary
Routes that overlook the gateway area of the National Park
Public rights of way

Topography
Contour (5m interval)
Above 500 m
400 - 500 m
300 - 400 m
200 - 300 m
Below 200 m

The whole valley floor of the River Ribble north of Settle is visible in the elevated panoramic views from the ridges surrounding the town. There are also gateway views towards the National Park from the south from parts of the A65, Brackenber Lane, Raines Road and the Settle-Carlisle Railway. There are more glimpsed views from the slopes of Mill Hill in Giggleswick and long, dramatic panoramic views across the town from High Hill and from the steep lane above Langcliffe.

Figure D4
Gargrave - National Park gateway analysis

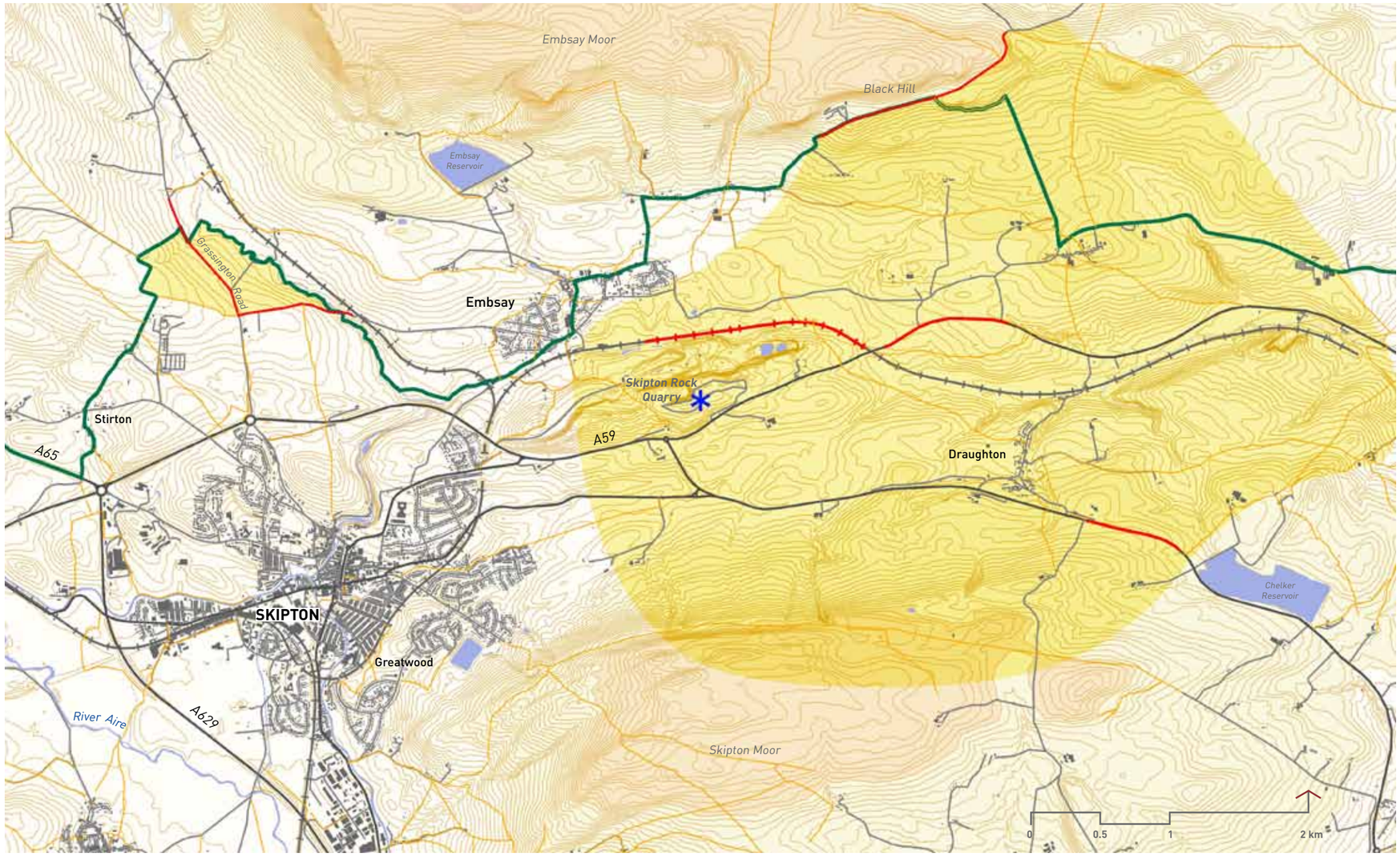


National Park Boundary
Areas of significant sensitivity adjacent to but outside the YDNP boundary
Routes that overlook the gateway area of the National Park
Public rights of way

Topography
Contour (5m interval)
Above 500 m
400 - 500 m
300 - 400 m
200 - 300 m
Below 200 m

The A65 runs along the National Park boundary between Skipton and Gargrave, but views here and to the west of Gargrave tend to be directed along the River Aire valley to the south rather than towards the National Park. The area of significant sensitivity, in which there are positive gateway views to and from the National Park is to the north of the Leeds and Liverpool Canal on the north side of Gargrave village, where there are views from the Eshton Road and from Chew Lane.

Figure D5
Skipton-Embsay - National Park gateway analysis

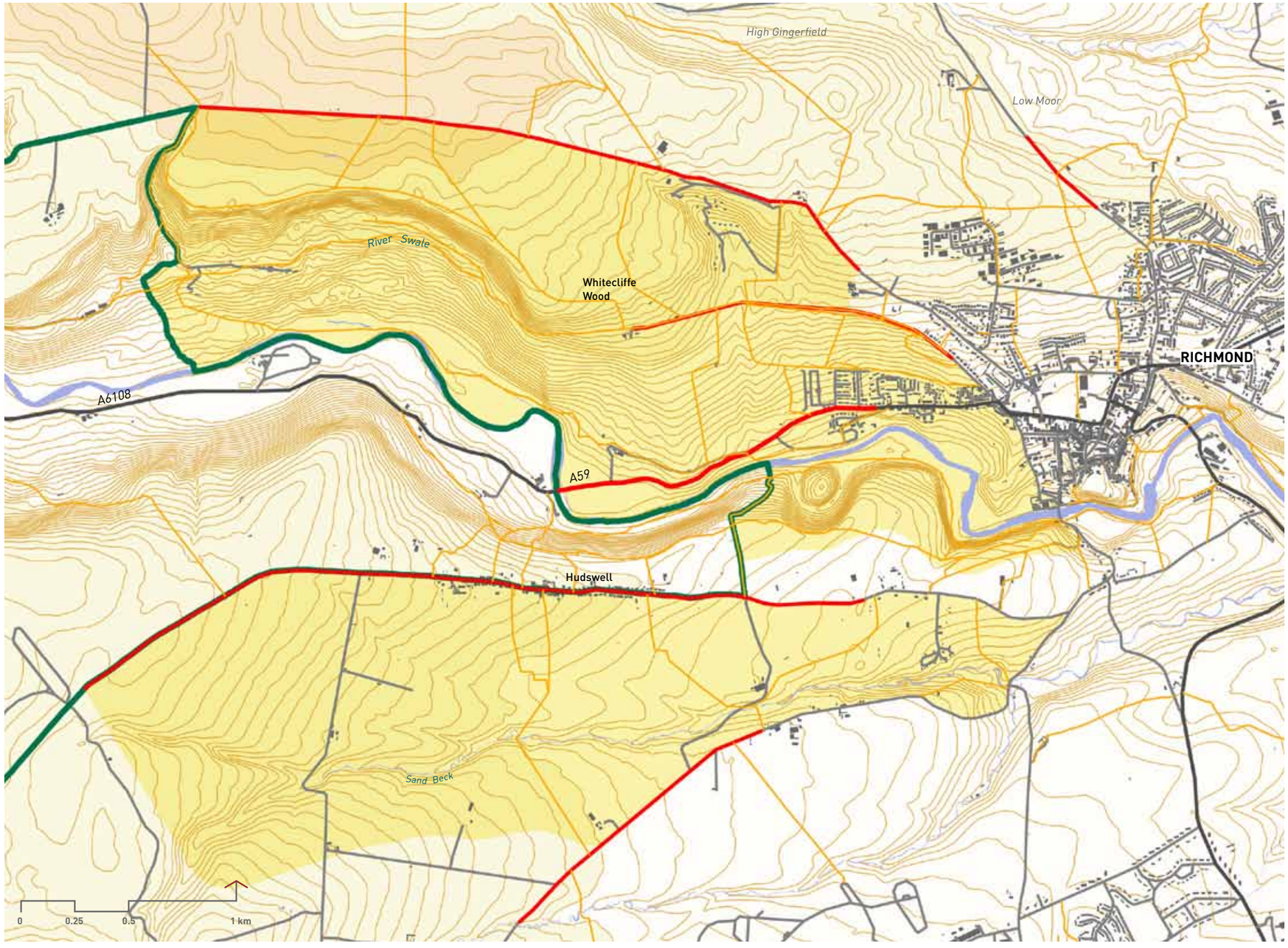


There are no significant views to/from the National Park from Skipton and the bypass routes around the town because views are contained by a combination of landform, hedgerows and road embankments. However, there are long, open panoramic views from Black Hill across the broad valley to the east of Embsay (containing Haw Beck/Holy Well Beck/Lillands Beck and Ing Beck) and some views northwards and westwards towards the National Park (to Eastby Crag and distant views to Flasby Fell) from the A59 at Long Causeway and the A65 near Chelker Reservoir. The whole of this valley (including Skipton Rock Quarry) is an area of significant sensitivity.

The approach to the National Park along the Grassington Road and the valley of Eller Beck north of Dale High Way also offers attractive long views to the footslopes of Rylstone Fell and is an area of significant sensitivity adjacent to the YDNP boundary.

Figure D6

Richmond - National Park gateway analysis



National Park Boundary

Areas of significant sensitivity adjacent to but outside the YDNP boundary

Routes that overlook the gateway area of the National Park

Public rights of way

Topography

Contour (5m interval)

Above 500 m

400 - 500 m

300 - 400 m

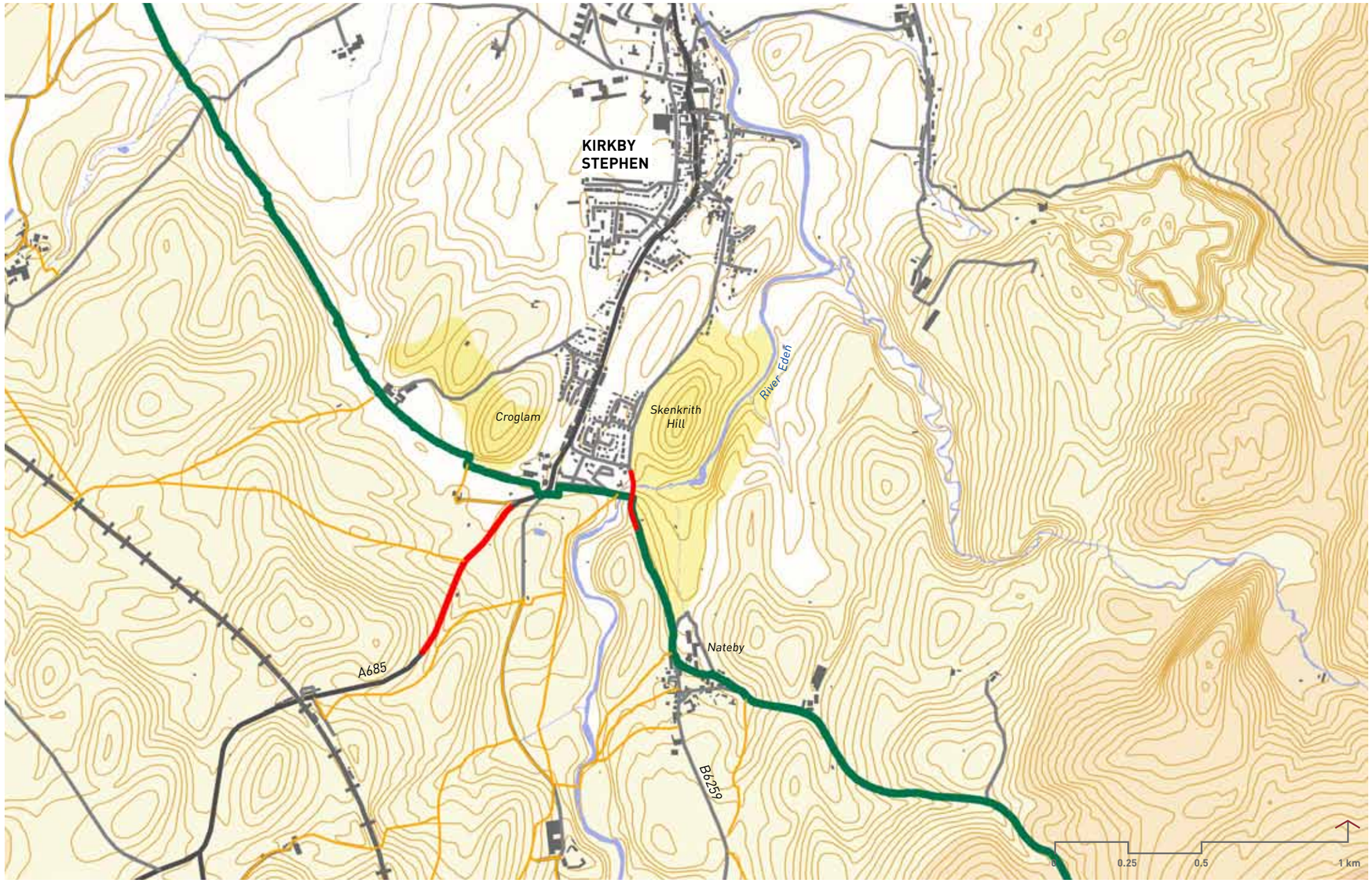
200 - 300 m

Below 200 m

The steep wooded slopes and rocky outcrops of the dramatic River Swale gorge to the west of Richmond are a highly sensitive component of the National Park setting and of the landscape setting of this historic town. There are important panoramic views from the road leading to Whitecliffe Wood and, at a higher elevation,the edge of Low Moor (the site of the former race course) on the northern slopes of this steep river valley.

The small, partially wooded valley of Sand Beck, to the south west of Richmond is also sensitive as it forms part of the sequence of views on the approach to the Richmond National Park gateway from the south.

Figure D7
Kirkby Stephen - National Park gateway analysis



National Park Boundary

Areas of significant sensitivity adjacent to but outside the YDNP boundary

Routes that overlook the gateway area of the National Park

Public rights of way

Topography

Contour (5m interval)

Above 500 m

400 - 500 m

300 - 400 m

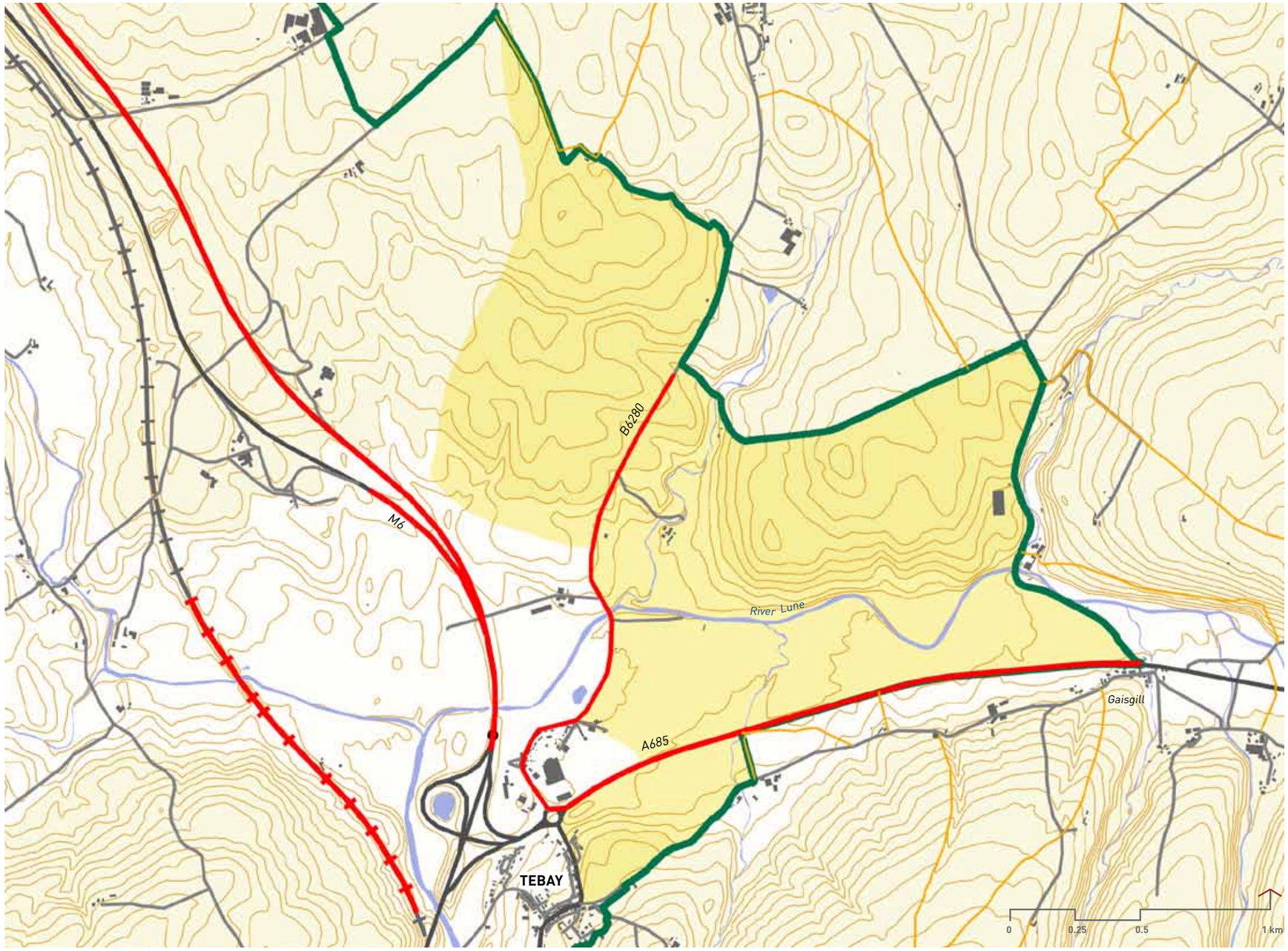
200 - 300 m

Below 200 m

There are no significant views to/from the National Park at Kirkby Stephen as views on the approaches to the town near the National Park boundary are generally screened by undulating drumlin topography. However, there are views to the southern slopes of Croglam Hill from the A685 and to the River Eden Valley and the slopes of Skenkrith Hill from the B259 - in both situations the views are close to the edge of the National Park. Within this context, the slopes of the drumlins of Croglam and Skenkrith Hill, together with the banks of the narrow River Eden valley to the east of the town, are the most sensitive component of the National Park setting.

Figure D8

M6 - Tebay - National Park gateway analysis



National Park Boundary

Areas of significant sensitivity adjacent to but outside the YDNP boundary

Routes that overlook the gateway area of the National Park

Public rights of way

Topography

Contour (5m interval)

Above 500 m

400 - 500 m

300 - 400 m

200 - 300 m

Below 200 m

The National Park boundary follows the contours on the mid-slopes of the River Lune Valley. The lower valley slopes and floodplain are sensitive to change as they are prominent in gateway views from the M6 on the approaches to Tebay, from the B6260 (to Orton) to the north and, more generally from the A685 which connects to the M6 junction at Tebay.

There is an abrupt change between the 'urban' scale, noise and pace of the M6 corridor and the natural, scenic and more tranquil landscape of the National Park. The landscape setting of the National Park at the Tebay gateway has an important role as it is the setting for this transition.

The A685 follows the River Lune into the National Park and changes to the gentle, subtle scale and pattern of this relatively open river valley landscape would disrupt the natural 'flow' of this landscape experience.

ANNEX E

Acknowledgements

LAND COVER MAP (Figure 4, page 9)

The following datasets have been used in the derivation of LCM2015 25m raster:

Landsat-8 satellite imagery. Data available from the U.S Geological Survey.
AWIFS satellite imagery © Antrix (2014), distributed by GAF AG, provided under COPERNICUS by the European Union and ESA, all rights reserved.
Contains Ordnance Survey mapping data © Crown copyright and database right 2015.
Mapping data reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown Copyright 2007, Licence number 100017572.
Digital elevation data © Intermap Technologies Inc. or its suppliers 2003.
OS open data layers – Contains OS data © Crown copyright and database right (2015).
National Forest Inventory (NFI) data provided by the Forestry Commission © Crown Copyright, courtesy Forestry Commission (2015), licensed under the Open Government Licence.
Boundaries from Rural Payments Agency © Crown copyright and database right and/or © third party licensors.

TRANQUILLITY MAP (Figure 5, page 10)

The following datasets have been used in the creation of the national tranquillity map for England 2007

Land Cover Map (LCM) 2000 - A thematic classification of satellite imagery (year 2000) into types of land cover, provided by the Centre for Ecology and Hydrology (CEH).
Digital Elevation Model (DEM) - A raster dataset providing elevation data OS Panorama 50m resolution
OS Strategi - 1:250,000 scale OS dataset of urban areas, transportation infrastructure and key environmental features such as rivers and woodland.
OS Points of interest data - An OS point dataset providing location details of features, business and leisure sites throughout Great Britain.
OS 250k and 500k Raster Maps - Raster dataset of OS 1:250,000 and 1:500,000 maps for the UK
Urban Settlement Boundaries - Urban settlement boundaries and population information from the last census provided by the Office of national statistics, in polygon format,
National Rail Network maps and Train time tables - National Rail Network maps of Service Operators per line, Rail Network and Station Locations and Mainline and Non Principal Routes. Time tables (journey planner).
Military Low Fly zones - Latitude and longitude data of the point location of low fly boundaries provided in MS excel format from the MOD (Ministry of Defence) No. of hours. RAF Boulmer ¼ million aviation maps for UK
Aeronautical maps for the UK both civil and military data - Aeronautical maps in paper format with military and civil information, showing all airports, radar control zones and aircraft flight levels, en-route corridors, danger areas, low fly areas and structure height information. Provided by MOD
Traffic flow data - Motor Vehicle flow for England, by road class, obtained from the Department of works and transport, www.dft,gov.uk/transtat/roadtraff
Powerlines - The location of our transmission assets within England and Wales – National Grid
Wind Farms - BWEA website

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